

Chapter IV

Demographic and Land Use Trends

In this chapter, the reader will find:

- An overview of the MPO's demographic data
- An understanding of how land use patterns may influence the regional transportation network

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Introduction

This chapter examines the demographics and land use trends of the region in the context of the performance of the transportation system. The distribution of people and jobs across the MPO area plays a crucial role in the functioning of the transportation system. How close or far people live to or from each other and their jobs and other destinations largely determines the traffic patterns throughout the region. Because land use patterns inform the spread of people and activity centers throughout the region, existing and future land use trends are also analyzed in this chapter. The demographic data and land use policies inform conclusions about needs in the transportation system.

Population and Demographic Trends

The Demographics of the MPO

Population

As of 2016, 64,584 people live in the MPO area. **Table 1** shows the population change from the last Decennial Census year (2010) to 2016 along with the projected change in population from the Danville Travel Demand Model (TDM). The change from the 2010 to the 2045 projection indicates a downward trend in population size for the MPO. However, as seen in **Figure 37**, the population change has been uneven across the region. Approximately one-third of the census block groups that comprise the region experienced a population increase from 2010 to 2017. The area around Mountain Hill saw the largest uptick, followed by areas in the Westover, River District and Franklin Turnpike Planning Areas.

Table 1 Population Change from 2010 to 2045

Source: Danville Travel Demand Model

2010 Population	2016 Population	2045 Population	Population Change 2016-2045	Percent Change 2016-2045
65,689	64,584	53,417	-11,167	-17%

As seen in **Figure 38**, the areas of the highest residential densities in the MPO are largely concentrated in the River District, North Main, Piney Forest Road and Franklin Turnpike Planning Areas. The number of people and their spatial distribution has significant effects on the transportation system, since the majority of trips will originate from those areas. Residential density is also a critical aspect in the viability of transit service.

Age

The MPO is getting older, as seen in **Figure 36**. The largest age cohort in the MPO in 2010 was 50 to 54, whereas that cohort was 60 to 64 in 2017. **Figure 39** shows the median age of each census block group in the region, while **Figure 40** shows the changes in median ages for the same geography from 2010 to 2017. While the area as a whole is getting older, some areas saw influxes of younger residents in the seven year period. Age is an important factor in analyzing the transportation system, as residents below the legal driving age and elderly residents do not necessarily have access to cars, making other modes, such as transit crucial for those cohorts.

Figure 36 Age Pyramids for the MPO in 2010-2017

Source: ACS 2013-2017 5-Year Estimates

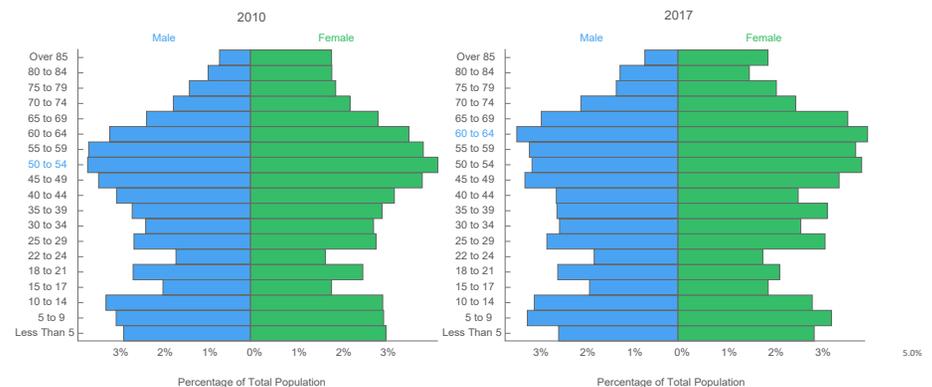
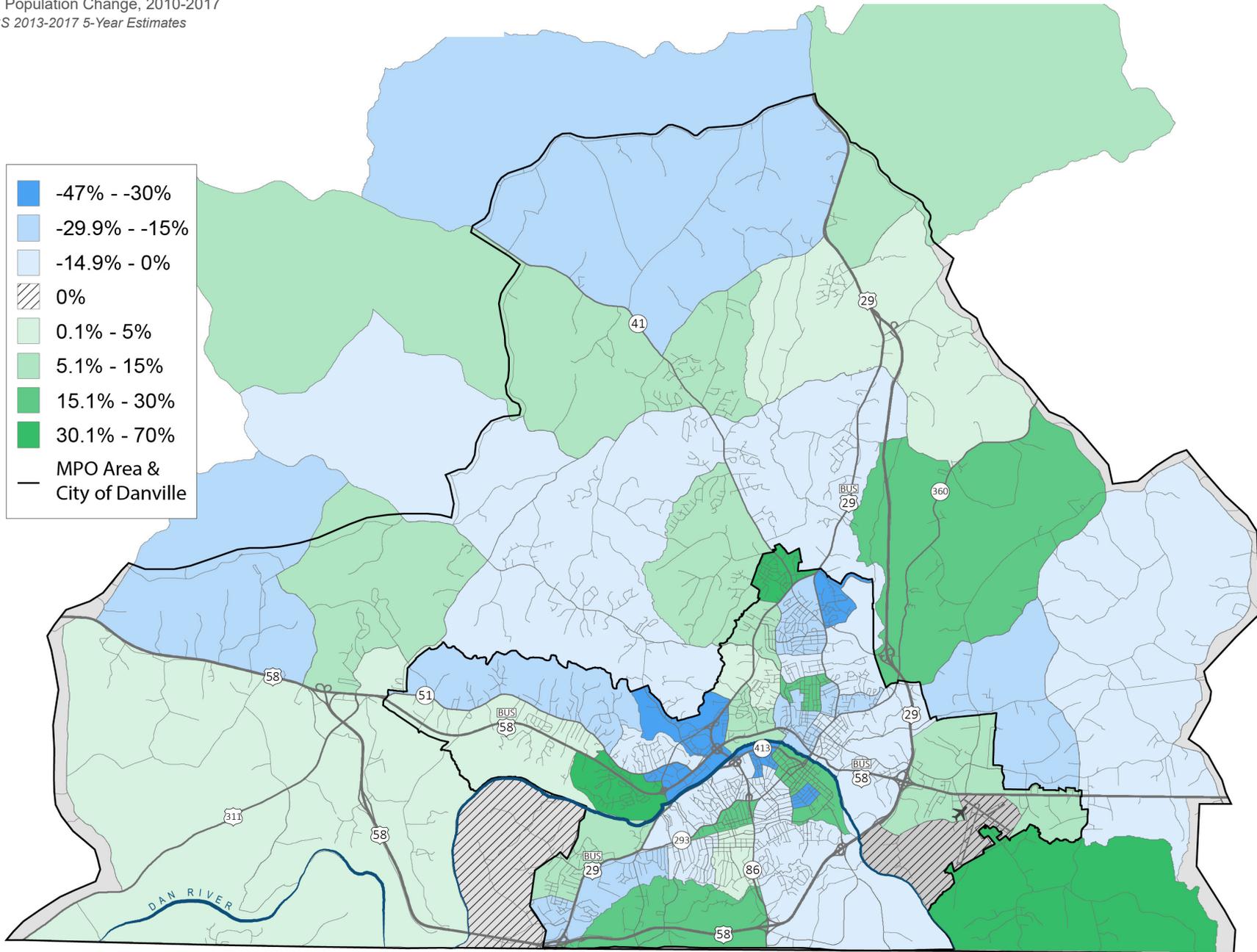


Figure 37 Population Change, 2010-2017

Source: ACS 2013-2017 5-Year Estimates

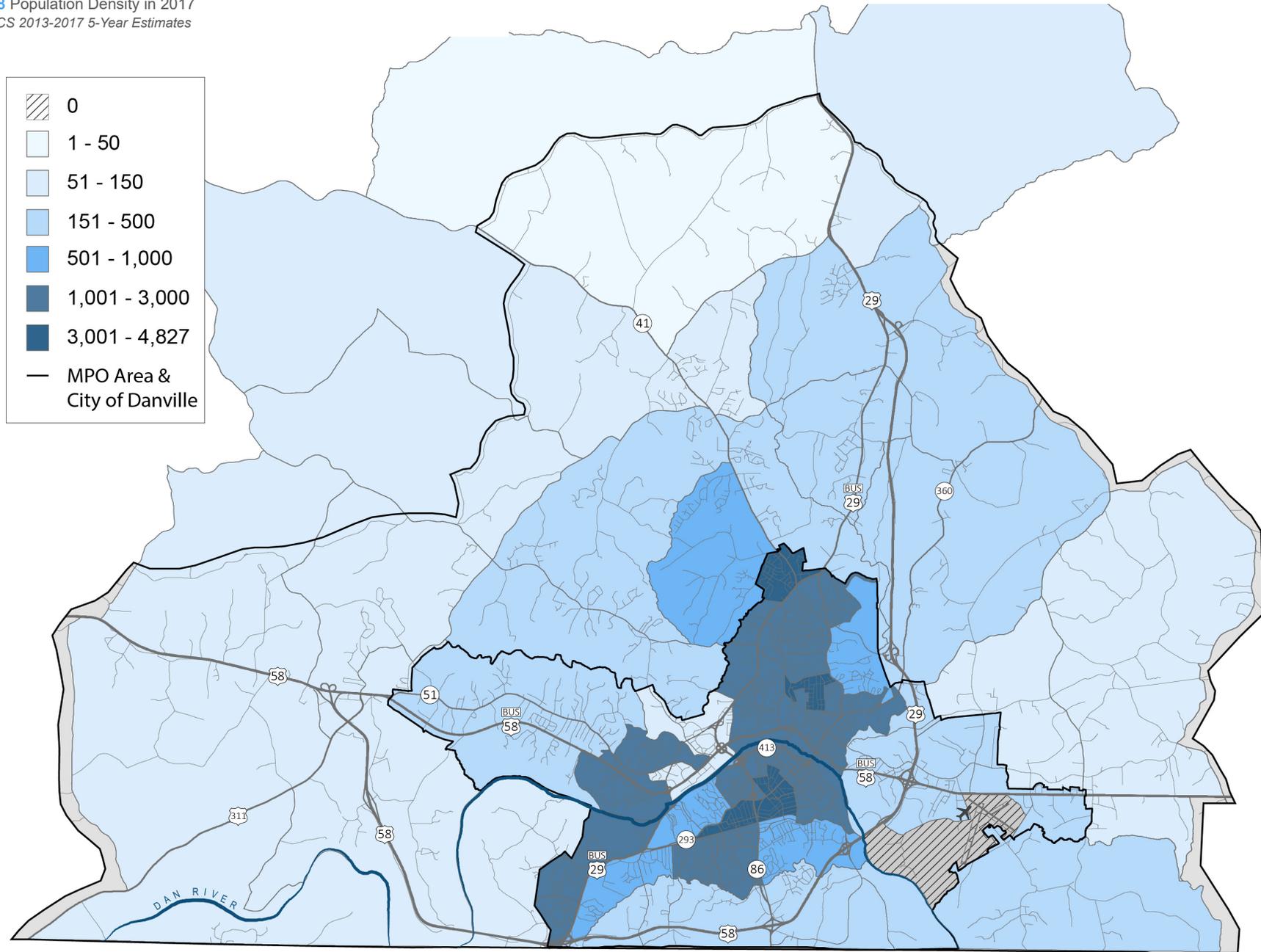


0 0.5 1 2 3 Miles

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Figure 38 Population Density in 2017
 Source: ACS 2013-2017 5-Year Estimates

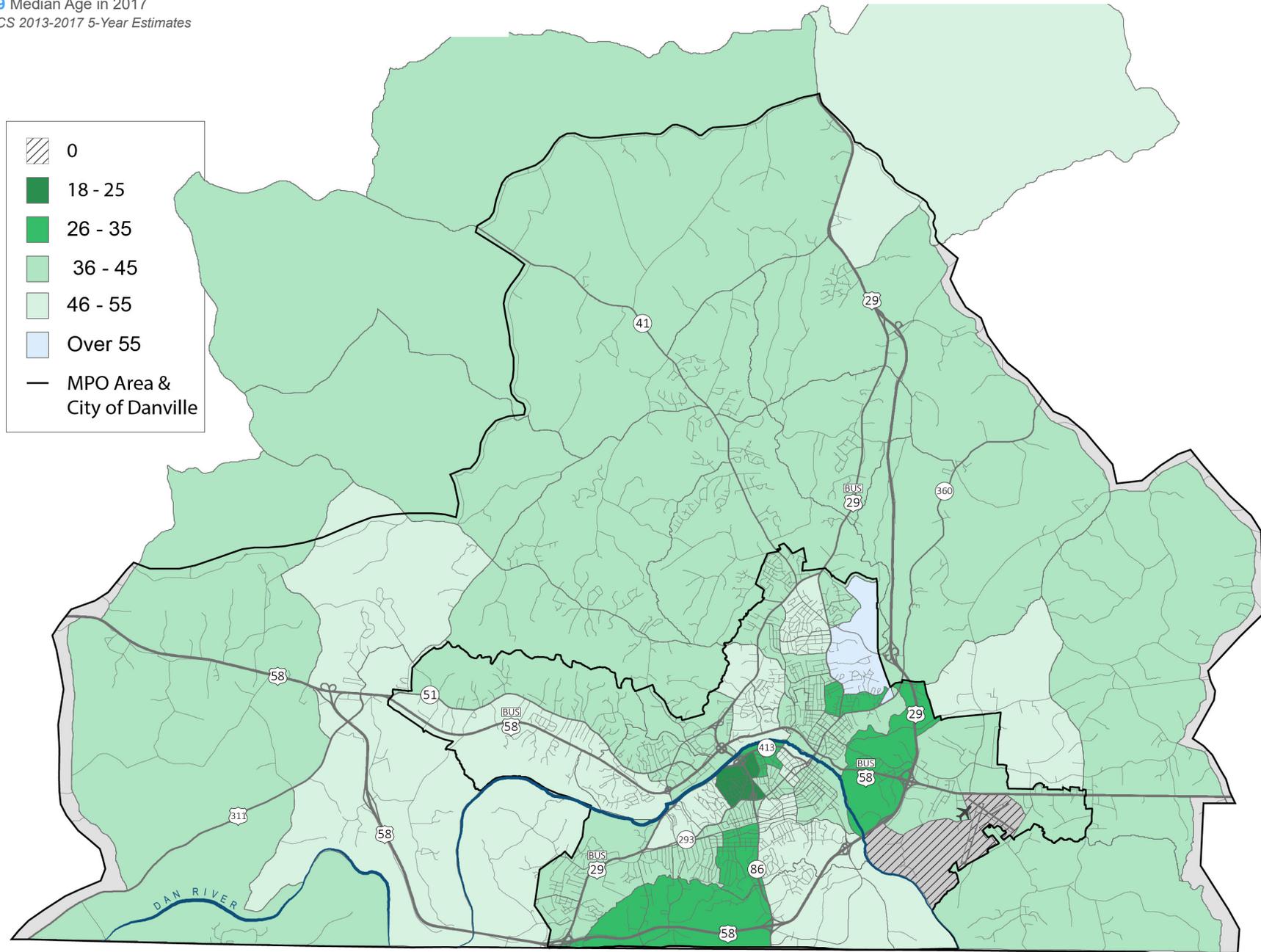


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Figure 39 Median Age in 2017
 Source: ACS 2013-2017 5-Year Estimates



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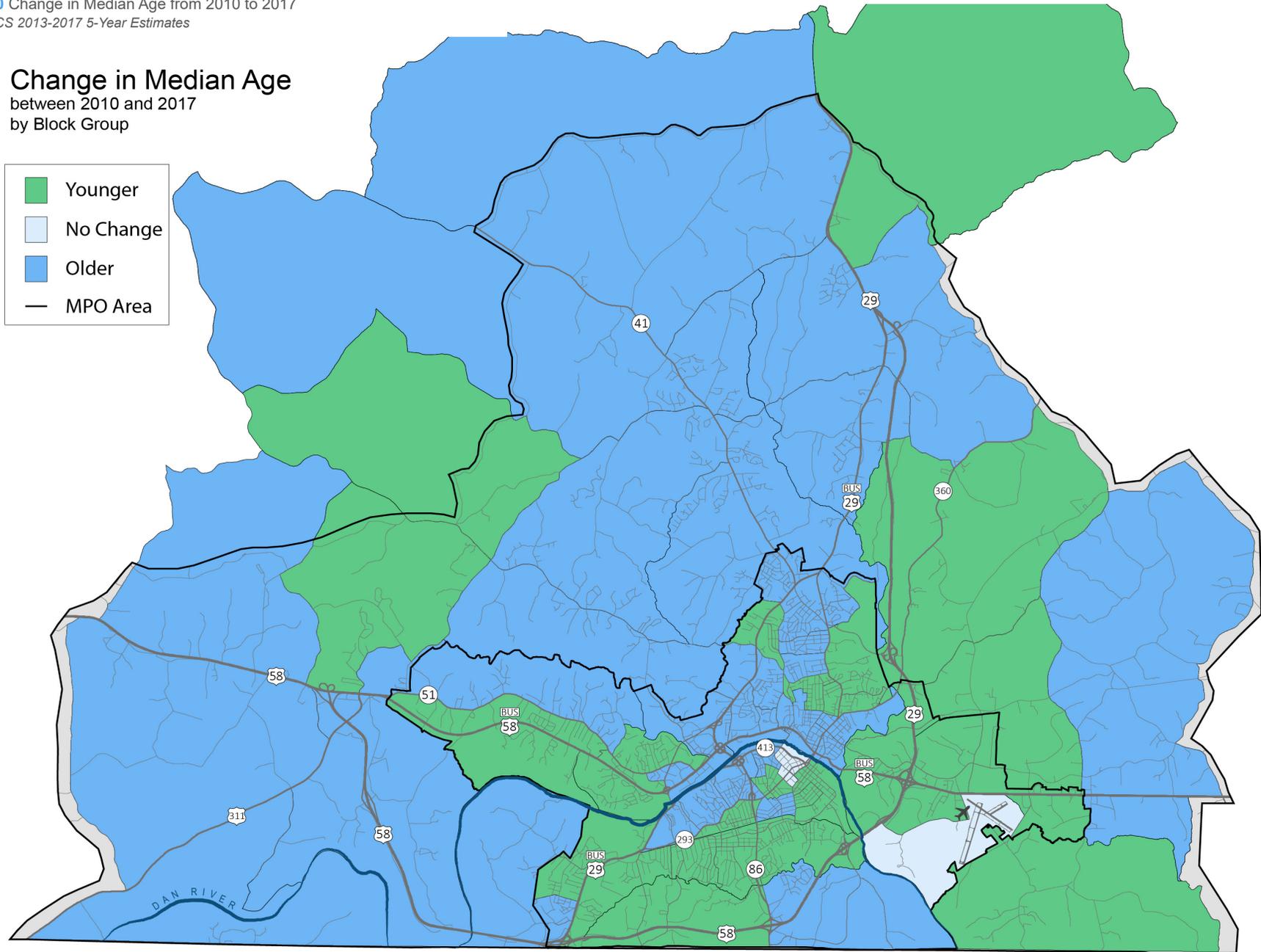


Figure 40 Change in Median Age from 2010 to 2017

Source: ACS 2013-2017 5-Year Estimates

Change in Median Age between 2010 and 2017 by Block Group

- Younger
- No Change
- Older
- MPO Area



0 0.5 1 2 3 Miles

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Employment and Commuting Trends

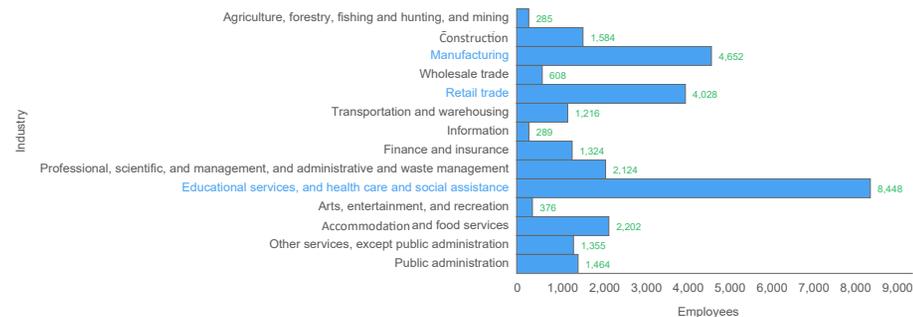
Employment in the MPO

Jobs in the MPO are largely concentrated along US Route 29 Business/Piney Forest Road and in the River District and Airport/Industrial Planning Areas. **Figure 43** shows the employment density in the MPO. **Figure 44** shows the largest employers in the MPO area. In terms of the number of employees, the top five employers in the MPO are:

1. Goodyear Tire & Rubber Company
2. Pittsylvania County School System
3. Southern Virginia Regional Health System - Danville
4. Danville Public Schools
5. Nestle

The largest employers of the area roughly reflects the breakdown of employment by industry, which can be seen in **Figure 41**. It should be noted that the Ikea plant closed at the end of 2019.

Figure 41 Employment by Industry 2017
Source: ACS 2013-2017 5-Year Estimates



The distribution of employers and employment areas constitutes significant activity centers throughout the region. The activity centers attract a large share of daily trips. According to the 2017 National Household Travel Survey, trips to and from work are the second most common type of trips made in the U.S. Consequently, the area's employment centers are an important data point in the development of the recommendations of this plan.

Commuting Trends

Commuting in the MPO Today

MPO area commuters are overwhelmingly dependent on private automobiles for their commutes. As seen in **Figure 42**, approximately 83% of area commuters drove to work alone in 2017. **Figure 45** shows the breakdown of commute times for area residents. The commute times suggest that most MPO residents live relatively far from their places of work, given that about two-thirds of commute times are over 15 minutes.

Figure 42 Means of Transportation to Work 2017
Source: ACS 2013-2017 5-Year Estimates

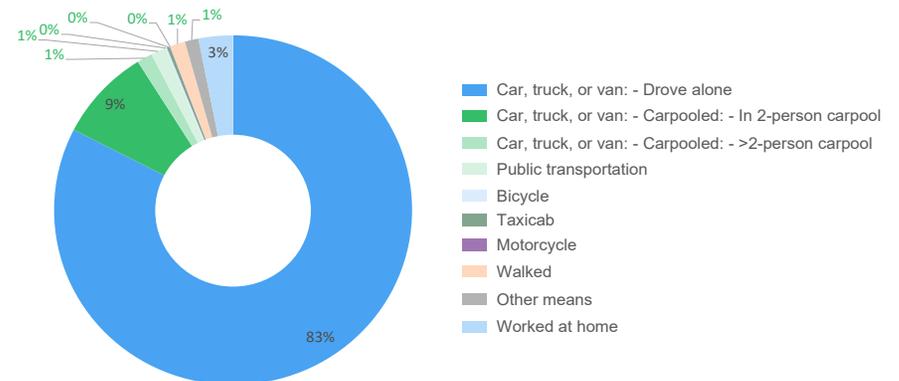
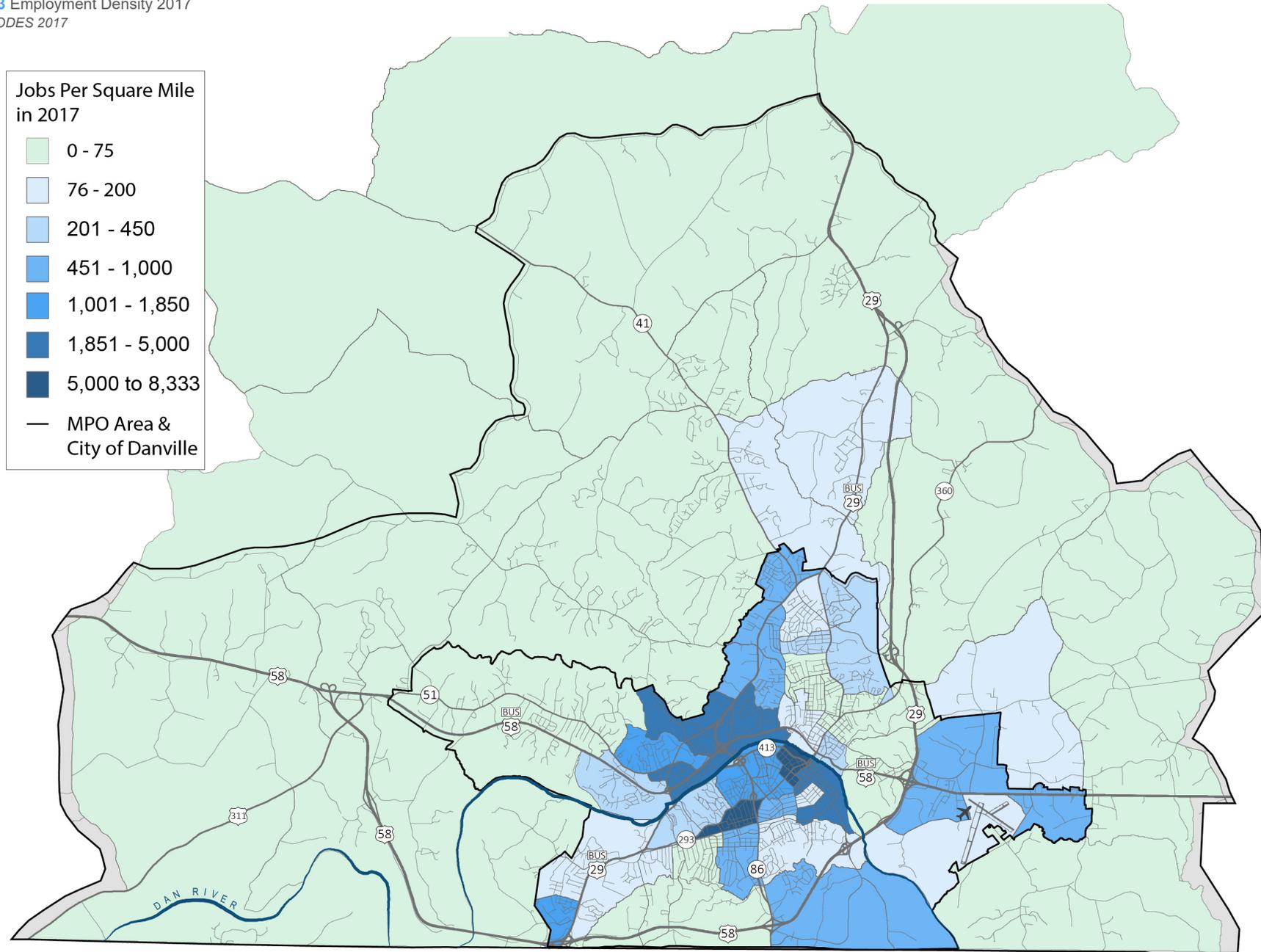


Figure 43 Employment Density 2017
 Source: LODES 2017



0 0.5 1 2 3 Miles

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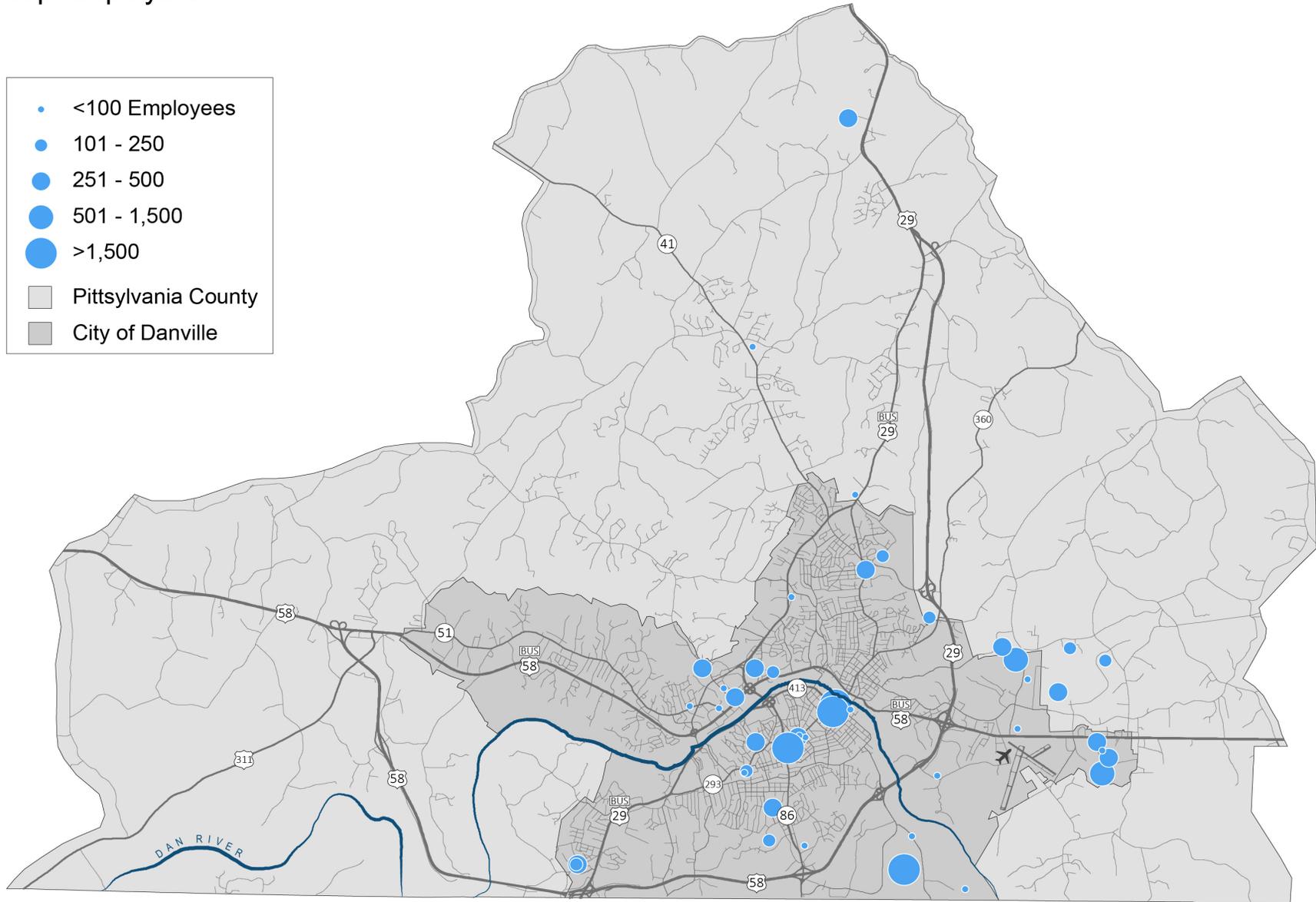


Figure 44 Top Employers in 2018
 Source: Danville Area Chamber of Commerce,
 Danville Pittsylvania Chamber of Commerce

Top Employers

↑ Pittsylvania County
 ● Pittsylvania County School System

- <100 Employees
- 101 - 250
- 251 - 500
- 501 - 1,500
- >1,500
- Pittsylvania County
- City of Danville



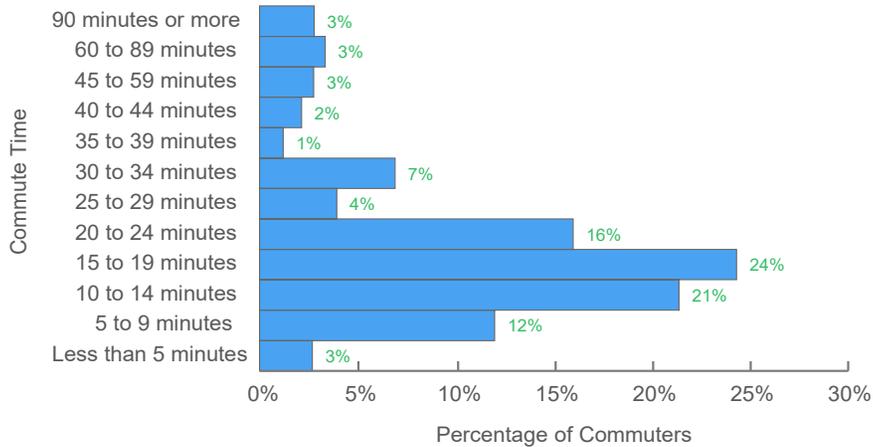
0 0.5 1 2 3 Miles

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Figure 45 Commute Time to Work 2017

Source: ACS 2013-2017 5-Year Estimates



Commuting Trends in the MPO

Figures 46 & 47 show the commuting patterns in the region in 2017. The maps depict the origins and destinations of workers in the MPO in 2017, along with a summary of the workers employed in the MPO and the workers who live in the MPO. The maps reveal that the MPO region has strong economic ties to a wide ranging area including Greensboro, NC and Richmond, VA. The MPO area also has a higher inflow of commuters than outflow. To build on the flows of workers coming in and out of the MPO from around the greater region, the MPO should identify projects that will enhance the road and rail networks that serve commuters in the area.

Figure 46 Origin of Workers in 2017

Source: LODES

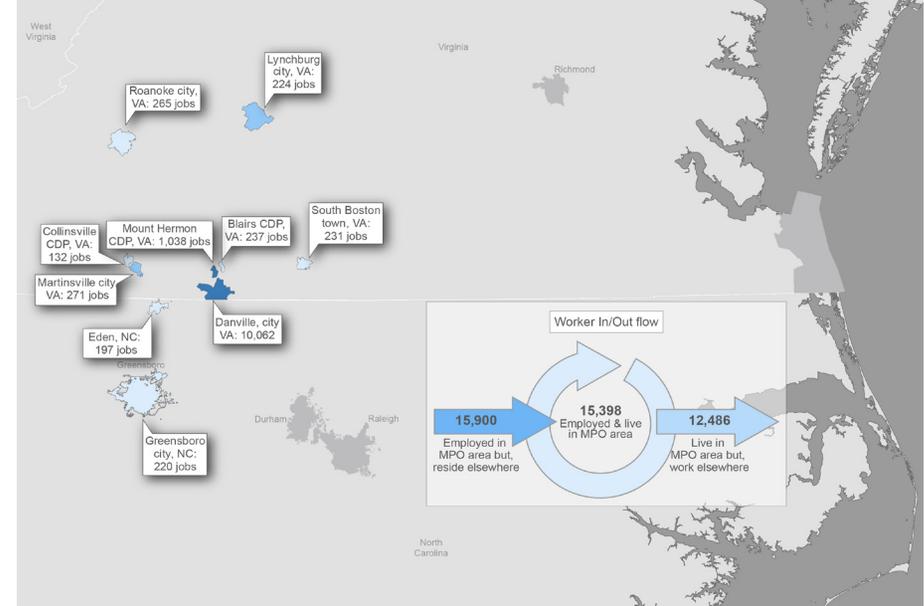


Figure 47 Destination of Workers in 2017

Source: LODES

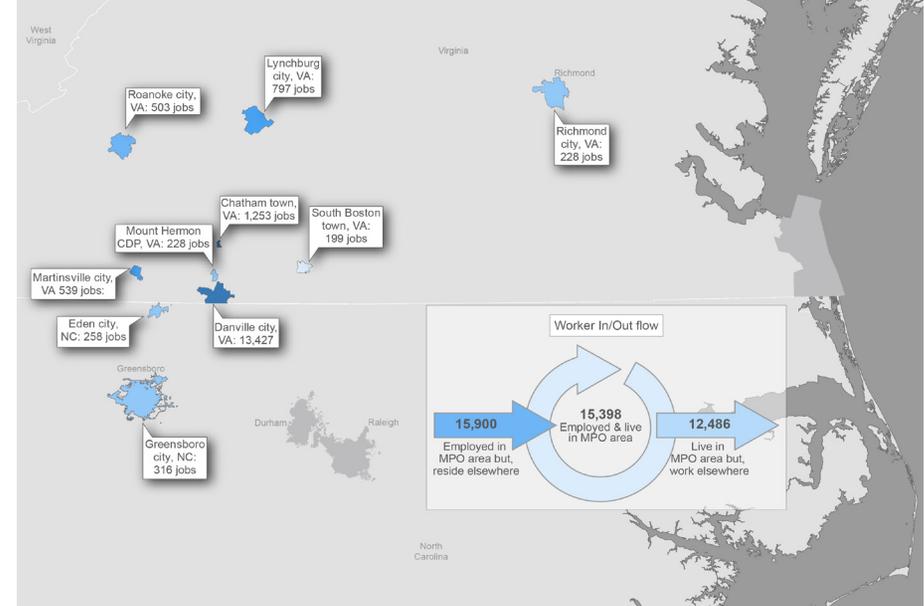
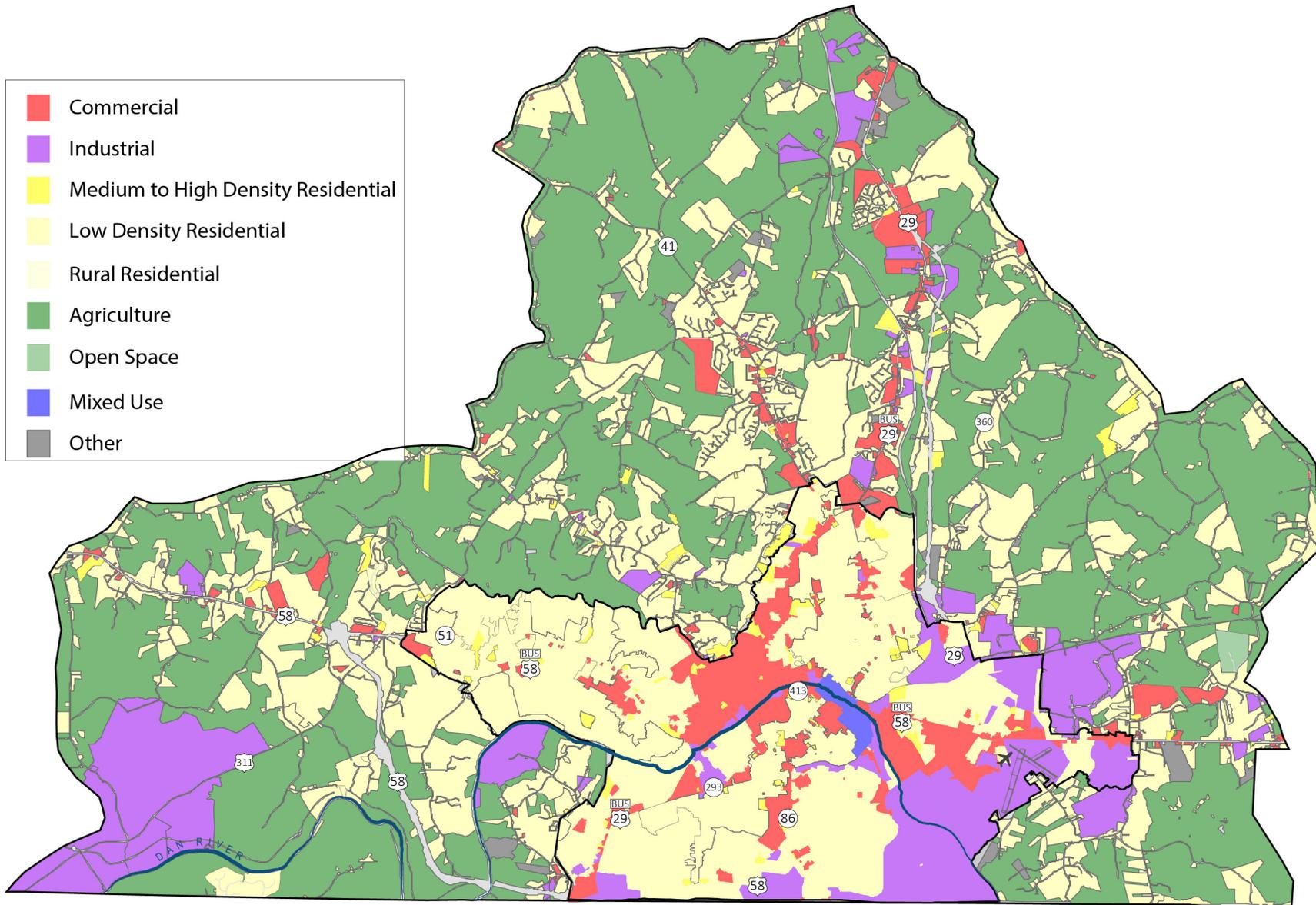


Figure 48 Generalized Existing Land Use Map
 Source: City of Danville, Pittsylvania County



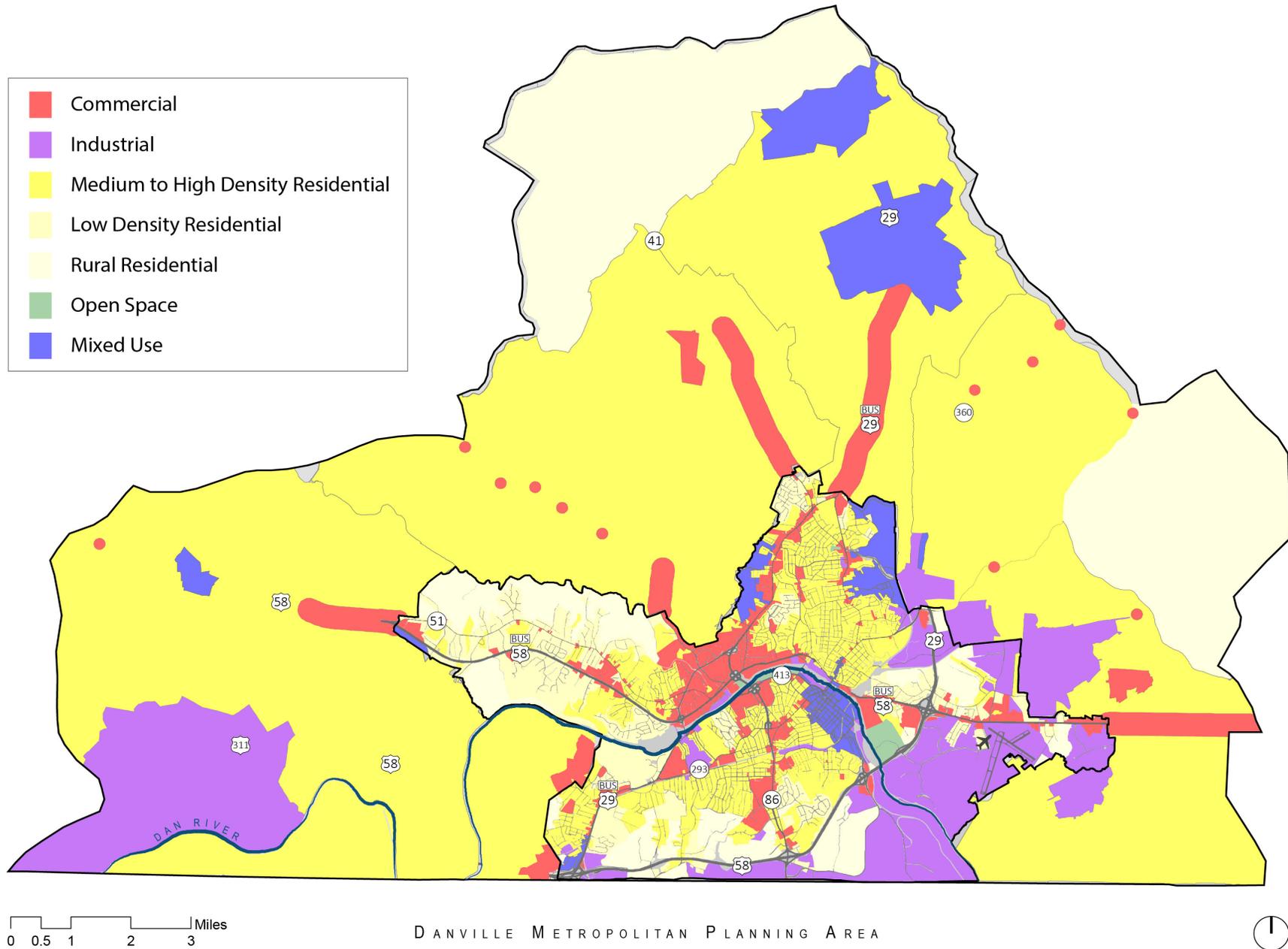
0 0.5 1 2 3 Miles

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Figure 49 Generalized Future Land Use Map

Source: City of Danville, Pittsylvania County



Existing and Future Land Use Policies

Existing Land Uses

The land use regulations of the City of Danville and Pittsylvania County portion of the MPO exert a significant influence on the transportation system. **Figure 48** shows a generalized land use map based on the existing zoning ordinances of the two localities. The existing land use regulations in the MPO create large swathes of generally homogenous activities. Employment centers are concentrated in the Piedmont Drive/Mt. Cross Road, Piney Forest Road, South Boston Road and Airport/Industrial Planning Areas. Beyond those concentrated areas, employers are largely distributed along several corridors of US Route 58/Westover Drive, State Route 41/Franklin Turnpike and US Route 29 Business/Piney Forest Road.

Future Land Uses

Figure 49 shows a generalized map of the future land uses in the MPO. Both jurisdictions envision an increase in medium to high density residential and mixed-use designations. The policies for future land uses in the region comprise an important factor when considering which transportation projects should be submitted for funding.

Conclusions

The MPO is undergoing a significant change in demographics. The data displayed in the previous pages reveals population decline and aging in the MPO in the coming decades. However, some areas, such as the River District Planning Area have experienced gains in younger residents in recent years. Additionally, the region saw increases in people commuting into the region and people who both live and work in the region.

The decrease in population creates the opportunity to redesign key elements of the transportation system, however recent development projects, such as a new casino and Berry Hill Industrial Park, may also alter these trends. The population decline is the likeliest cause of the lack of over-capacity facilities in the network. As will be seen in the following chapter, the abundance of roadway capacity is likely to persist into 2045, even with development of a new casino and other attractions. Given the surplus of roadway capacity, the region has the opportunity to reallocate space on its roads for alternative transportation modes.