

POPULATION

INTRODUCTION

The socio-economic data available at the time of this writing is a conglomeration of data provided by the Kentucky State Data Center, OKI Regional Council of Governments, 2010 U.S. Census data, recent U.S. Census estimates, as well as the Boone County Planning Commission.

History

Boone County was established in 1798 and inhabited by 1,500 persons. From the early 1800's until the 1850's Boone County experienced relatively steady population growth. This population growth was related to the County's position on the Ohio River and the dominant form of travel at the time, the steamboat. The steamboat era resulted in the growth and prosperity of Boone County's river towns, such as Belleview, Petersburg, and Taylorsport. The inland crossroad towns of Burlington, Florence, Walton, Union, and Verona were dominated by farming activities and the harvesting of hardwood forests.

In the mid to late 1800's, Boone County's population growth began to stagnate and experience losses. The dominant form of travel was shifting from the steamboat to the locomotive. The rail lines that traversed Boone County only passed through Florence, Walton, and Verona. Accordingly those areas and towns that were served by the railroads prospered and gained population, while the unserved areas stagnated and lost population.

The 1940's marked the beginning of the automobile era, and Boone County subsequently reversed its decline in population into positive population growth. Boone County's population has increased dramatically since the early 1960's due in large part to the readily available transportation access provided by the interstates and related roadways, as well as from the airport. Unincorporated Boone County has experienced the greatest population growth, while the City of Florence is the Boone County city that has experienced the greatest level of population growth. Most of this growth is due to in-migration rather than natural population growth. **Table 2.1** describes Boone County's population by municipality since 1960.

TABLE 2.1 - BOONE COUNTY POPULATION BY MUNICIPALITY SINCE 1960

	1960	1970	1980	1990	2000	2010
Florence	5,837	11,457	15,586	18,624	23,551	29,951
Union	n/a	n/a	601	1,001	2,893	5,379
Walton	1,530	1,801	1,651	2,034	2,450	3,635
Unincorporated	14,573	19,554	28,004	35,930	57,097	79,846
TOTAL	21,940	32,812	45,842	59,579	85,991	118,811

Source: U.S. Census

The growth in Florence has been a result largely due to its location along the main interstate system in the northern Kentucky area (I-71/I-75), past annexations, and zoning map amendments on the west side of the city which allowed denser residential development. Union has seen increase as a result of the continued residential growth coming from the Florence area southward along the new US 42. Walton has also increased because of annexations and residential zoning map amendments mainly on the north and east sides of the city. The total population gain in the unincorporated county area was even greater for the 2000-2010 decade than in the 1990's.

Population Trends, 1960-2010

Since 1960, the population of Boone County increased from 21,940 to 118,811 persons in 2010. The sharpest increase, in terms of a recent decade growth rate, occurred between 1960 and 1970 when the population increased by 49.6%. The largest increase in numbers over a decade occurred in the 2000-2010 time period when the population increased by 32,820 people. The latter half of the 1990's through the end of 2008 reflected a housing and in-migration boom in response to low interest rates, increased sanitary sewer service, business

climate, and national building and lending trends. Since 2008, due to a slowdown in the economy, natural population growth in Boone County has continued to increase while in-migration has become less of a contributor to the population growth. **Table 2.2** shows the difference in the growth rate between the first half and the second half of the decade. Instead of growing at a rate of about 4,000 people per year as seen between 2000-2005, the second half saw growth at approximately 2,500 per year.

TABLE 2.2 - BOONE COUNTY RECENT GROWTH

	2000	2005*	2010
Boone County Total Population	85,991	106,272	118,811
Difference from past 5 years		+20,281	+12,539
People added per year average		4,000	2,500

*Sources: *KY State Data Center Estimates (University of Louisville) and U.S. Census*

Although Boone County only makes up a small percentage of the OKI regional population, it has been growing faster than any other county in the region (**Table 2.3**). Boone County has been the third fastest growing county by percentage in the Commonwealth of Kentucky behind Spencer County’s 45% and Scott County’s 42.7% (both with smaller overall population) from 2000 to 2010, and has had the third largest total population increase in the state for that same time period behind Jefferson and Fayette counties. The rural characteristics of neighboring Gallatin and Grant counties are evident in their growth rates of four percent and fourteen percent respectively for the same time period.

TABLE 2.3 – OKI REGION POPULATION CHANGE

	1990	2000	2010	Change 2000-10
Boone	57,589	85,991	118,811	38.2%
Campbell	83,866	88,616	90,336	1.9%
Kenton	142,031	151,464	159,720	5.5%
Butler	291,479	332,705	368,130	10.6%
Clermont	150,187	177,977	197,363	10.9%
Hamilton	866,228	845,303	802,347	-5.1%
Warren	113,909	158,486	212,693	34.3%
Dearborn	38,835	46,130	50,047	8.5%
TOTAL	1,744,124	1,886,672	1,999,447	6.0%

Source: U.S. Census

The majority of Boone County’s population growth has occurred in the areas of Florence, Oakbrook, Burlington, Richwood, Hebron, Union, and more recently in the northern portion of the Walton area. **Figure 2.1** shows the 2010 Census Tract boundaries. **Table 2.4** lists the 2010 population in each census tract. The Census County Divisions (CCD), shown in **Figure 2.2**, remain unchanged from 2000 to 2010. Several Census Designated Places (CDP) have been added for the 2010 Census, as shown in **Figure 2.3**.

The three incorporated municipalities in Boone County (Florence, Walton, & Union) have experienced steady population growth since 1960. Florence, the largest city, has experienced the greatest increase. Florence's size is a reflection of its proximity to I-75 and related roadways. Its population has continued to increase through infill housing and annexations.

Even with the strong population growth in Boone County, some areas have experienced the opposite. For example, the airport area zones had lost population during the 1990s due to airport buyouts and the development of manufacturing and industrial parks.

Population Density

Population density refers to the number of persons per square mile of land area, and serves as an indicator of the degree of settlement in an area. As seen in **Table 2.5**, Boone County's population density has steadily increased in recent decades to become closer to that of its more urbanized neighboring counties and less like the overall rural characteristic of the state.

TABLE 2.5 – COUNTY POPULATION BY SQUARE MILE

	1960	1970	1980	1990	2000	2010
Boone	89	133	186	234	343	483
Kenton	741	794	841	874	905	986
Campbell	571	582	548	553	587	596
Kentucky Overall	77	81	92	93	101	109

Source: U.S. Census

OKI Traffic Analysis Zones (TAZ's) are also used to track population growth, primarily for transportation planning. **Figure 2.4** (2010 TAZ population density) shows that the majority of the higher density population in Boone County is located in the eastern portion of the County near the I-71/75 corridor. The established sections of Florence contain the highest population density up to 7.8 persons per acre (or over 5,000 per square mile). Many recent residential subdivisions have been developing at about 3 dwelling units per acre, which yields a density over 8 persons per acre. The lowest density areas are located in western Boone County. Most of these areas have less than one person per ten acres.

Daytime Population

Daytime Population is defined as the total number of people coming into the county (including those who do not leave the county) minus the number of people who leave the county. In 1996, Boone County had a day-time estimated population of 143,855 persons, which is double the night time population of the county at the time. Of the 88,719 non-resident people who came into the County daily in 1996, 34% came to work, 29% were airport travelers, 24.5% were retail customers, 9% were restaurant patrons, 2% were Turfway Racetrack patrons, 1% stayed in hotels and .5% were movie theater patrons. This information is included here to demonstrate that the Florence/airport areas in particular support much daytime employment, consumer, and travel activity. This increase in daytime activity requires public services just as the resident population does. There is great difficulty in coming up with a daytime population number because it is impossible to determine if people are being counted multiple times or not during the course of the day. Different methodologies have been employed in determining such figures; none of which a so-called accepted standard. When an agreed upon method of determining daytime population becomes the norm, the detailed study from 1996 will need to be updated.

Rural and Urban Population

U.S. Census classifies a county's population as either urban, rural farm, or rural non-farm. In 1940 Boone County's population was classified as completely rural and was considered primarily agricultural in character. By 1990, the urban portion comprised 61.3% of the population, the suburban (rural non-farm) portion comprised 36.4% of the population, and the rural farm portion comprised only 2.3% of the population. Since 1990, the U.S. Census' American Community Survey (ACS) indicates that the estimated rural vs. urban geographic boundaries have not been adjusted for each decennial census count, so that the figures provided in the census may provide little benefit to demographic analysis or planning efforts.

In a regional context, Boone County is less urban than neighboring Kenton and Campbell Counties but more so than the overall Commonwealth of Kentucky. This reflects the extensive residential subdivision development that has occurred in Boone County outside the official U.S. Census urban boundary.

Table 2.4 - 2010 US Census Tract Population
(see figure 2.1)

701	6,680
702	6,368
703.01	5,506
703.05	5,644
703.07	11,018
703.08	9,807
703.09	6,184
703.11	2,538
703.12	3,053
703.13	3,057
703.14	4,865
704.01	8,566
704.02	8,254
705.02	4,229
705.03	6,179
705.04	7,759
706.01	2,593
706.04	3,045
706.05	5,535
706.06	4,163
706.07	3,768
9801	0

Migration

Migration statistics are basic indicators of the economic situation within an area. Generally, if the local economic climate is poor, a negative migration is experienced as local residents relocate to areas with brighter economic situations. If the local economic climate is good, a positive migration is experienced as outside residents move to the area. Boone County experienced a period of stagnated and negative growth, or out-migration, from the late 1800's to the mid 1900's because the limited rail line service and the consolidation of farms enabled by machinery. However, from 1950 through 2010, Boone County experienced a significant positive migration rate due to the County's bright economic situation, the airport, interstate highways, desired residential amenities, its proximity to downtown Cincinnati, and the subsequent suburban growth patterns.

In a regional context, Boone County's positive migration rates higher than Kenton and Campbell Counties and the overall state. It should be noted that an area can experience negative migration but still have increases in population due to birth rates that compensate for the out-migration. A detailed look at recent Boone County migration (**Table 2.6**) reveals that the number of people moving into the county is greater than the number of movers within the county. Historically many new residents have come from Kenton County. **Table 2.7** shows that although the overwhelming percentage of Boone County residents were born in the U.S., over forty percent of the total population was born outside Kentucky. This is an indicator of strong in-migration over many years.

TABLE 2.6 – PERCENT MIGRATION JULY 2008 TO JULY 2009

Boone County Residence One Year Previous	Per Pop Over Age 1
Lived in Same House	84.5%
Lived in Different House in Boone County	7.0%
Lived in another Kentucky County	5.3%
Lived in Another U. S. State	3.5%
Lived Abroad	0.7%

Source: American Community Survey (ACS)

TABLE 2.7 – PLACE OF BIRTH, 2009 BOONE COUNTY POPULATION

Location	Percent
United States	94.9%
(Kentucky)	54.2%
(Another U.S. State)	40.8%
U.S. Territory or Abroad to U.S. Parents	1.0%
Another Country	4.1%

Source: American Community Survey (ACS)

Age and Sex Distribution

Boone County's median age in 2010 was 35.7 which is younger than the Kentucky median age of 38.1. Over time, the older age groups have increased their proportion of the total population. **Table 2.8** indicates that the 45-64 and 65+ age groups have increased in percentage in Boone County since 2000 while the younger age groups have decreased. As is the case nationwide, people are generally having fewer children while living longer.

Due to the strong presence of the 20-64 age group, the dependency ratio for Boone County is relatively low. The dependency ratio measures the number of dependent persons, defined as those that fall into the age groups of 0-19 and 65 and older, against the number of productive persons, defined as those who fall into the age group of 20-64. The closer the dependency ratio approaches 100, the greater the tax burden on the area's economy to provide necessary community facilities and services. The proportion of Boone County's male population, 49.5 percent, to female population, 50.5 percent, was essentially even in 2010. This is similar to previous decades.

TABLE 2.8 – AGE OF BOONE COUNTY POPULATION

Age	2000		2010	
	Number	Percent	Number	Percent
0-4	6,849	8.0	9,019	7.6
5-19	20,011	23.3	27,225	22.9
20-44	33,872	39.3	40,342	34.0
45-64	18,318	21.3	30,912	26.0
65+	6,941	8.1	11,313	9.5

Source: 2010 U.S. Census

Racial Composition

Boone County's population is relatively homogeneous in racial composition with the majority of the population defined as white (see **Table 2.9**). Boone County's 1980 non-white population (Black, American Indian, Eskimo, Asian, etc.) comprised 1% of the total population. The non-white population is rising slightly as the percentage of non-white population in 2000 was 4.8%, and in 2009 had increased to 6.6%. In a regional context, Boone County's 2000 percentage of 8.2% non-white population compares to that of Kentucky (12.2%), Kenton County (9%), and Campbell County (5.7%). Northern Kentucky as a whole has a relatively small non-white population.

The Hispanic population is not considered as a separate race by the U.S. Census Bureau. It is considered an ethnicity. According to the Census, in 2000 there were 1,702 (2.0%) Hispanic or Latino persons in Boone County of any race, and in 2010, there were 4,205 (3.5%).

TABLE 2.9 – RACIAL COMPOSITION OF BOONE COUNTY POPULATION

Race	2000		2010	
	Number	Percent	Number	Percent
White	81,822	95.2	109,050	91.8
African-American	1,306	1.5	2,992	2.5
American Indian	200	0.2	228	0.2
Asian	1,108	1.3	2,534	2.1
Other	1,555	1.8	4,007	3.4

Source: 2010 U.S. Census

Educational Attainment

Educational attainment is primarily measured in terms of the percentage of high school graduates among persons who are 25 years old and older. Boone County's percent of high school graduates increased between 2000 and 2010, as seen in **Table 2.10**. In 2010, Boone County's percent of high school graduates for persons 25 years old and older was higher than the state of Kentucky – 90.5 percent in Boone County to 81.9 percent in overall Kentucky, as was the percent bachelor's or higher degree – 31.9 percent in Boone County to 20.5 percent in overall Kentucky.

TABLE 2.10 – BOONE COUNTY EDUCATION DEGREES HELD, PERSONS AGED 25+

Level	2000	2010
High School	85.1%	90.5%
Associates	5.7%	8.8%
Bachelors	15.8%	18.8%
Graduate/Professional	7.1%	9.3%

Source: 2010 U.S. Census and ACS

Households and Family

The basic reporting unit, in terms of demographic data is the household. According to Census results and the American Community Survey (ACS), the average household size in 1990 was 2.85 persons, 2.73 in 2000, estimated to be 2.71 in 2005, and 2.75 in 2010. Household size has been projected by the ACS to level off near 2.66 in subsequent years. Household data is also discussed in the Housing Element.

A household can either be classified as a family household or a non-family household. A family household has been defined as two or more persons who are related by blood, legal adoption, or marriage. According to the 2010 U.S. Census, family households comprised 73.7 percent of the total number of households (down from 75 percent in 2000) and non-family households comprised 26.3 percent of the total number of households (up from 25 percent in 1980). Family households can represent married persons who are more likely to remain in the area in which they are currently residing. Non-family households generally represent single persons who are relatively transitory and career mobile.

The 2000 total number of families in Boone County was 23,435, which increased to 31,862 in 2010, at which time the percentage of families who were married couples totaled 78.5 percent.

Population Projections

Population projections are derived from statistical analysis procedures that consider both recent and historical population trends. Population forecasts for a political entity the size of Boone County are generally considered realistic. Population forecasts for political entities such as Florence, Walton, or Union are generally considered more tentative due to the possibility that annexations may affect the population growth.

Population forecasts for Boone County are derived from two main sources. The first source of population forecast is the Kentucky State Data Center at the University of Louisville. The Kentucky State Data Center provides the official population forecasts for Kentucky. The second source of population forecast is the Ohio-Kentucky-Indiana Regional Council of Governments (OKI). In addition, the Boone County Planning Commission staff updates population data based on residential growth, and has on occasion generated its own forecasts.

Kentucky State Data Center Forecasts

The Kentucky State Data Center's population forecasts for Boone County were made by utilizing the age-sex cohort survival population forecasting methodology. This particular methodology generates population forecasts for County residents by sex and age groups through the examination of the three components of population change: births, deaths, and migration. The age-sex cohort survival population forecasting methodology is the most commonly utilized population forecasting model and is considered to be relatively accurate. The Urban Studies Center has forecasted Boone County's 2010, 2020, and 2030 populations at 121,080, 153,545, and 186,373 persons respectively. These forecasts are larger than those from the 2000 Comprehensive Plan update where the Kentucky Data Center forecasted the 2020 Boone County population to be 139,000. These projections are lower, however, than those contained in the 2005 Comprehensive Plan because of the economic conditions and changes in the housing market of the past few years. With the release of the U.S. Census Boone County population of 118,811, the subsequent projections will likely be adjusted downward by the State Data Center.

OKI Traffic Zones Forecast

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) divided Boone County into separate transportation analysis zones (due to transportation being OKI's main planning function) and generated population projections for each zone through the year 2030. **Figure 2.5 and Figure 2.6 cartographically** show OKI's population projections for 2020 and 2030 using the traffic zones. **Table 2.11** summarizes the TAZ projections by region as shown on **Figure 2.7**.

Traffic zones around the airport have decreased in population due to past airport buyouts. The western and southern portions of the county as well the established portions of Florence are expected to increase only slightly. The expected high growth areas are Hebron, Burlington, the western portion of the Florence region, Walton, and Union. Over the next 25 years suburban growth of approximately eight persons per acre will continue to spread westward into western Boone County. Established sections of Florence will maintain their current densities. The

northern section of the County and the middle section including the Burlington and Camp Ernst Road areas will also experience an increase in population density. The land in the western portions of the county should remain rural at less than one person per 5 acres and less than 1 person per 10 acres in some areas. As with the State Data Center’s projections, these figures are likely to be reduced when OKI adjusts their numbers to take into account the economic slow-down of the past several years.

Table 2.11 - OKI TAZ "regions" population estimates

TAZ REGION:	2020	2030
Airport	4,141	3,886
Hebron	15,086	17,886
Burlington	29,155	34,538
Florence	32,385	34,153
Union	33,568	41,886
Richwood/Walton	22,085	27,761
western	15,184	20,468
southern	6,414	8,074
COUNTY TOTAL	158,018	188,652

source: OKI Regional Council of Governments

The northern and middle sections of the county are expected to increase by over 500 percent. The western portions of the county, as well as the established sections of Florence, are expected to only increase slightly. Areas around the airport are expected to decrease in population as the airport expands. All other areas of the county are expected to continue to grow significantly.

The OKI population forecasts for Boone County were made for each population analysis zone by considering three factors: (1) Housing changes for a given period of time in order to determine the proportion of individual population analysis zone growth relative to overall County growth; (2) The existing land uses; (3) The capability for future growth, based on location in the Cincinnati region, job growth, and infrastructure.

Determining the growth capability of a population analysis zone involved the physical constraints on available land and public facilities, Boone County planning studies, and local knowledge concerning the growth of Boone County. The population data compiled by the Boone County Planning Commission has been utilized in the Boone County Transportation Plan and other planning documents.

CONCLUSION

Boone County's rapid growth since 1940, although slowed over the last few years, is anticipated to generally continue through the year 2030 when OKI estimates 188,652 people will live in Boone County, compared to the 118,811 residents in 2010 according to the 2010 Census. As mentioned previously, these estimates will likely be adjusted down a bit to account for the recent conditions in the economy. Florence has also experienced rapid growth since 1940; however, its growth is anticipated to be modest in the future unless the city annexes additional residential areas. Boone County's percent of urban population is growing increasingly closer to that of Kenton and Campbell Counties. Some changes in population characteristics will affect housing and other features of the county. For example, Boone County is defined by a decreasing proportion of young and middle aged persons, while the median age will continue to grow older, and the percentage of Boone County's married couple households is anticipated to decrease. The county's population will continue to become more diverse in terms of race and ethnicity as well.

Geographically, Boone County's greatest areas of future population growth are anticipated to occur along KY 237 north of I-275, east of Camp Ernst Road and west of U.S. 42 through the Union and Richwood west areas. The western areas of Boone County are anticipated to experience modest population growth mainly in the form of non-subdivision single family residences and small, low density subdivisions.

The continuing low-density development in Boone County does not match some of the higher density residential land use areas recommended on the 2025 Future Land Use Map during the 2000 Comprehensive Plan update. The result in 2000 was that additional land outside the 2020 recommended urban land use areas was planned for suburban or urban development for the 2025 Land Use Plan. This was considered again during the 2005 update for the 2030 Future Land Use Map in light of existing and planned infrastructure. Boone County population growth, as projected by OKI and the KY State Data Center, can be accommodated beyond 2030 with currently allocated land. However, relatively level land will become shorter in supply if current development patterns continue. This basic analysis helps in forming recommendations for the other elements in this plan including the Land Use Element.

Figure 2.1 - 2010 Census Tracts

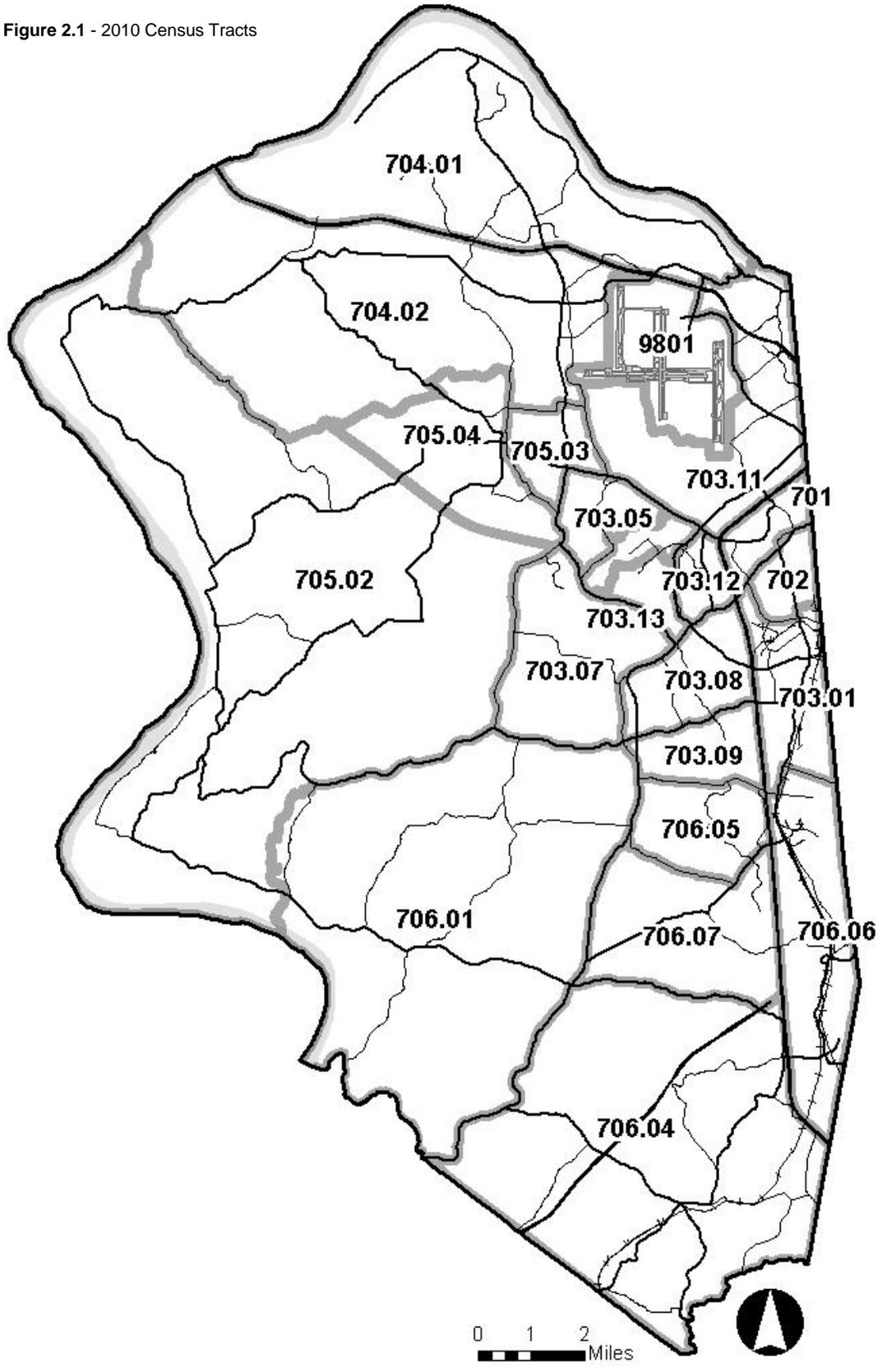


Figure 2.2 - Census County Divisions

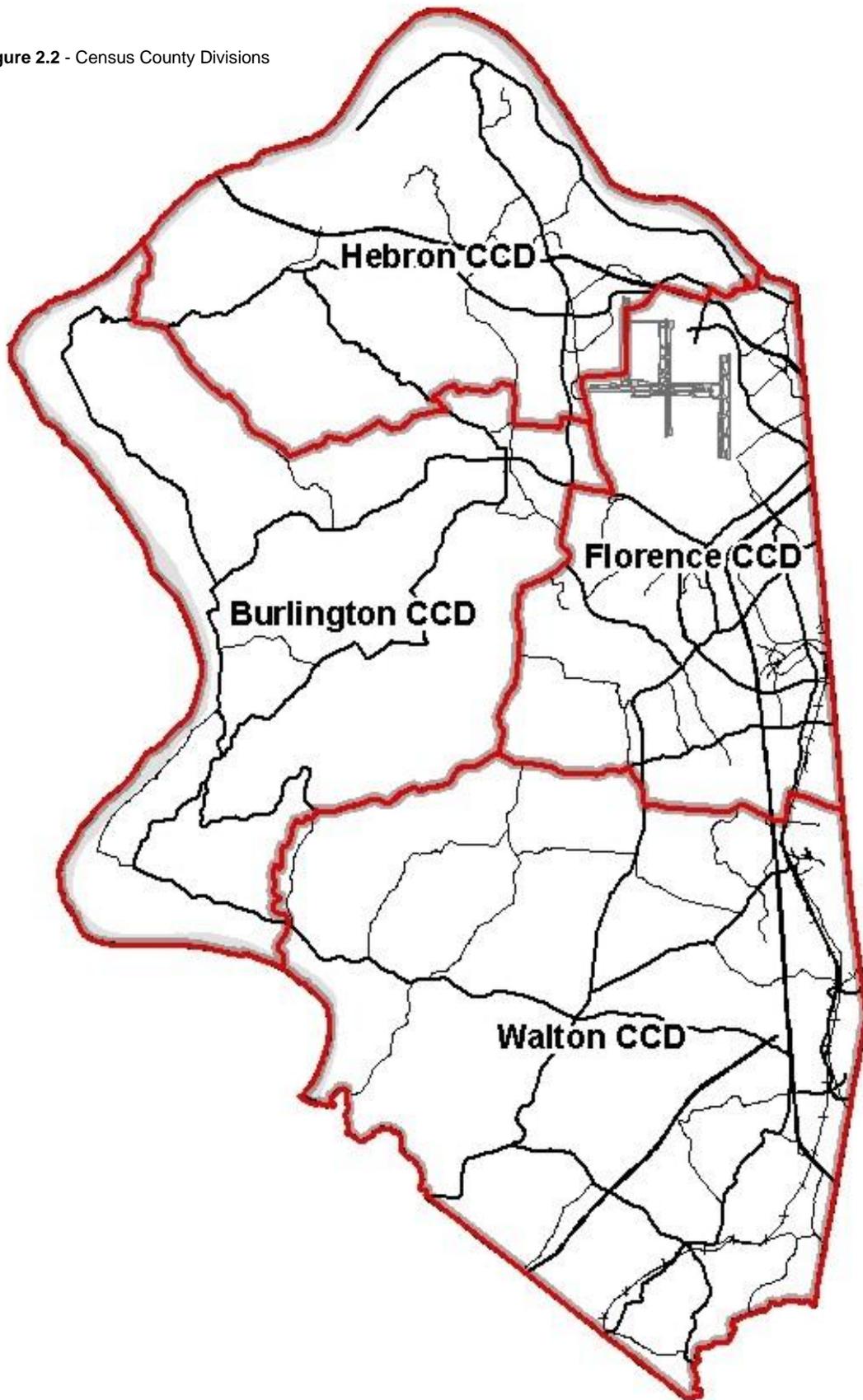


Figure 2.3 - Census Designated Places

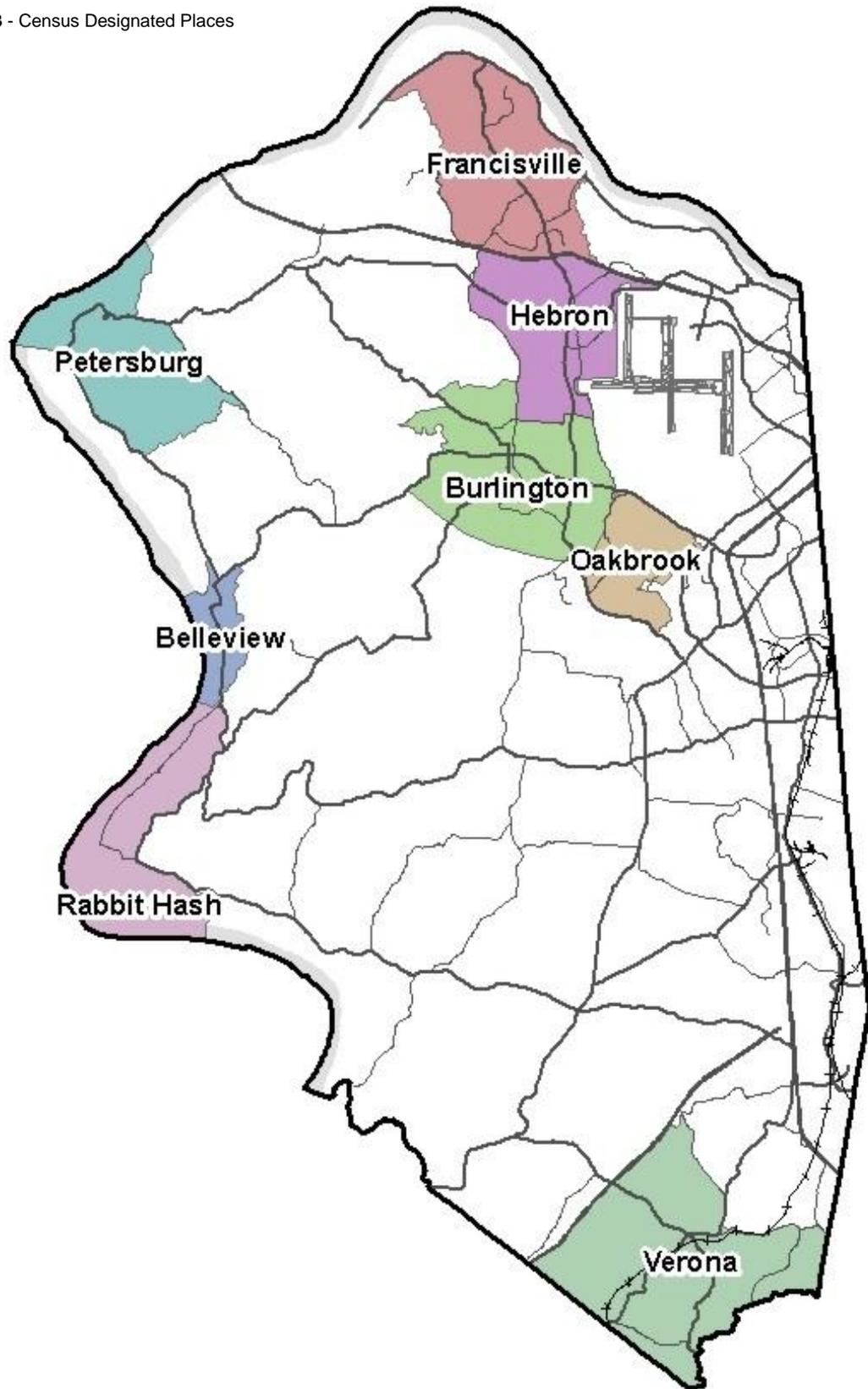


Figure 2.4 - 2010 TAZ Population Density

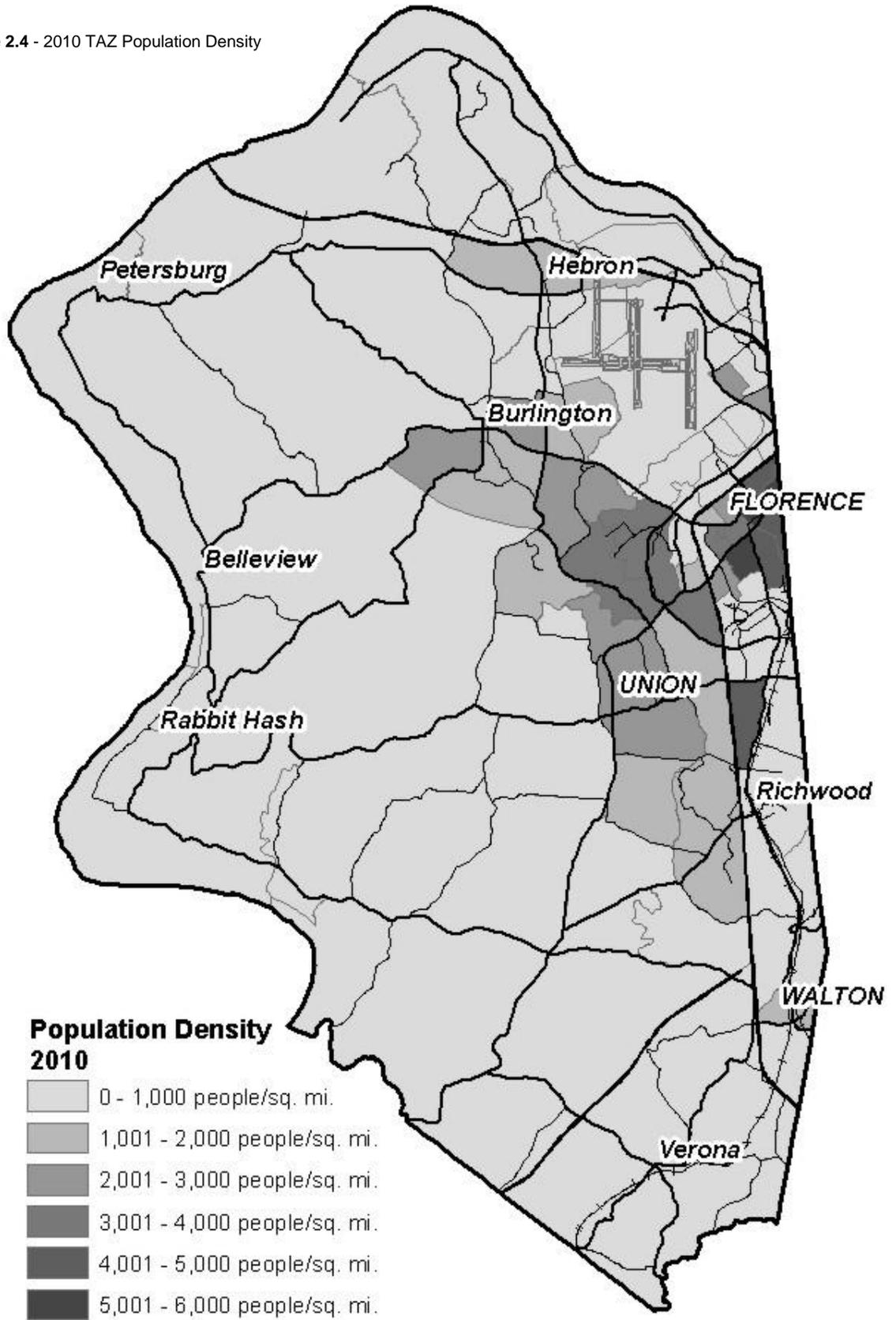


Figure 2.5 - 2020 TAZ Population

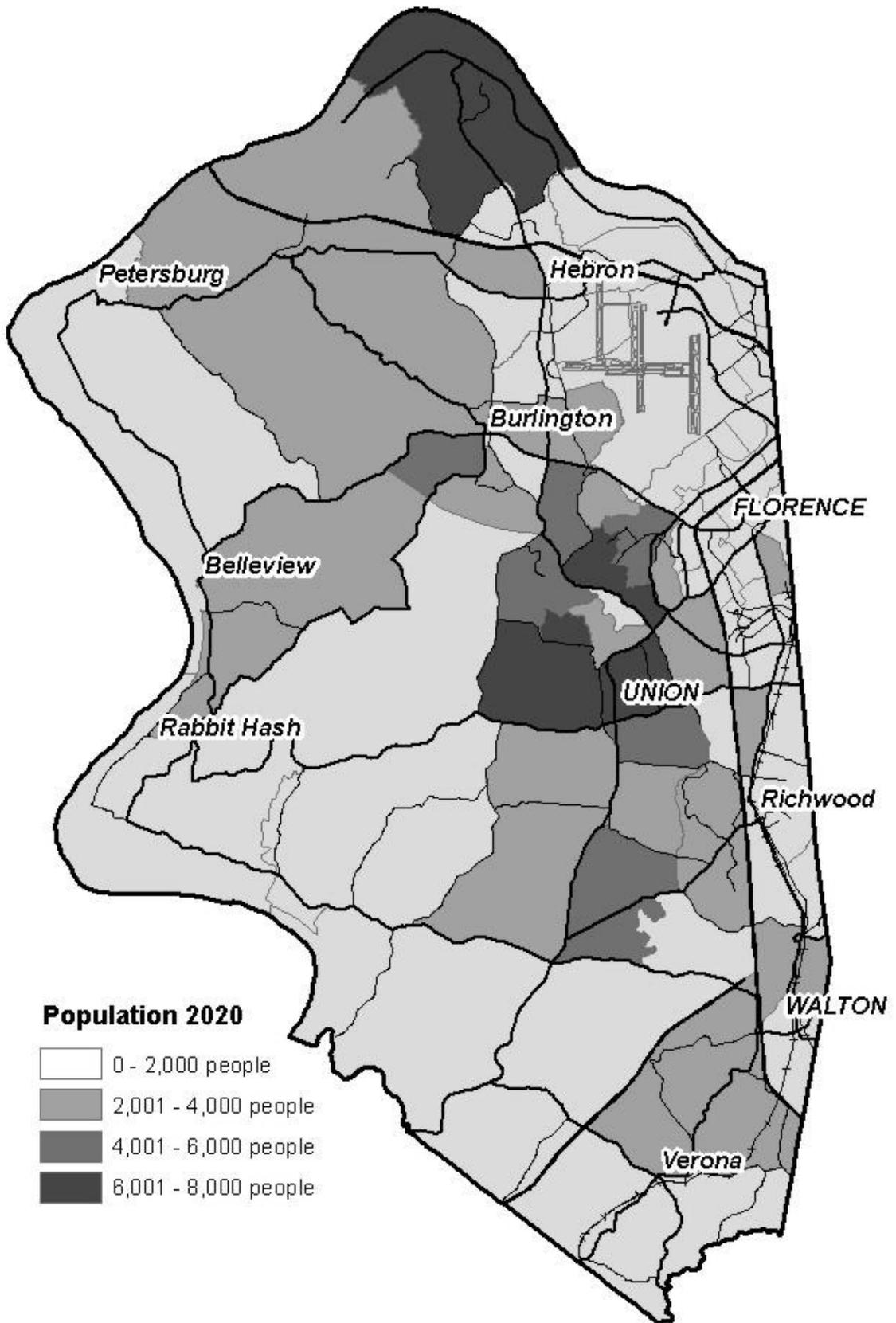


Figure 2.6 - 2030 TAZ Population

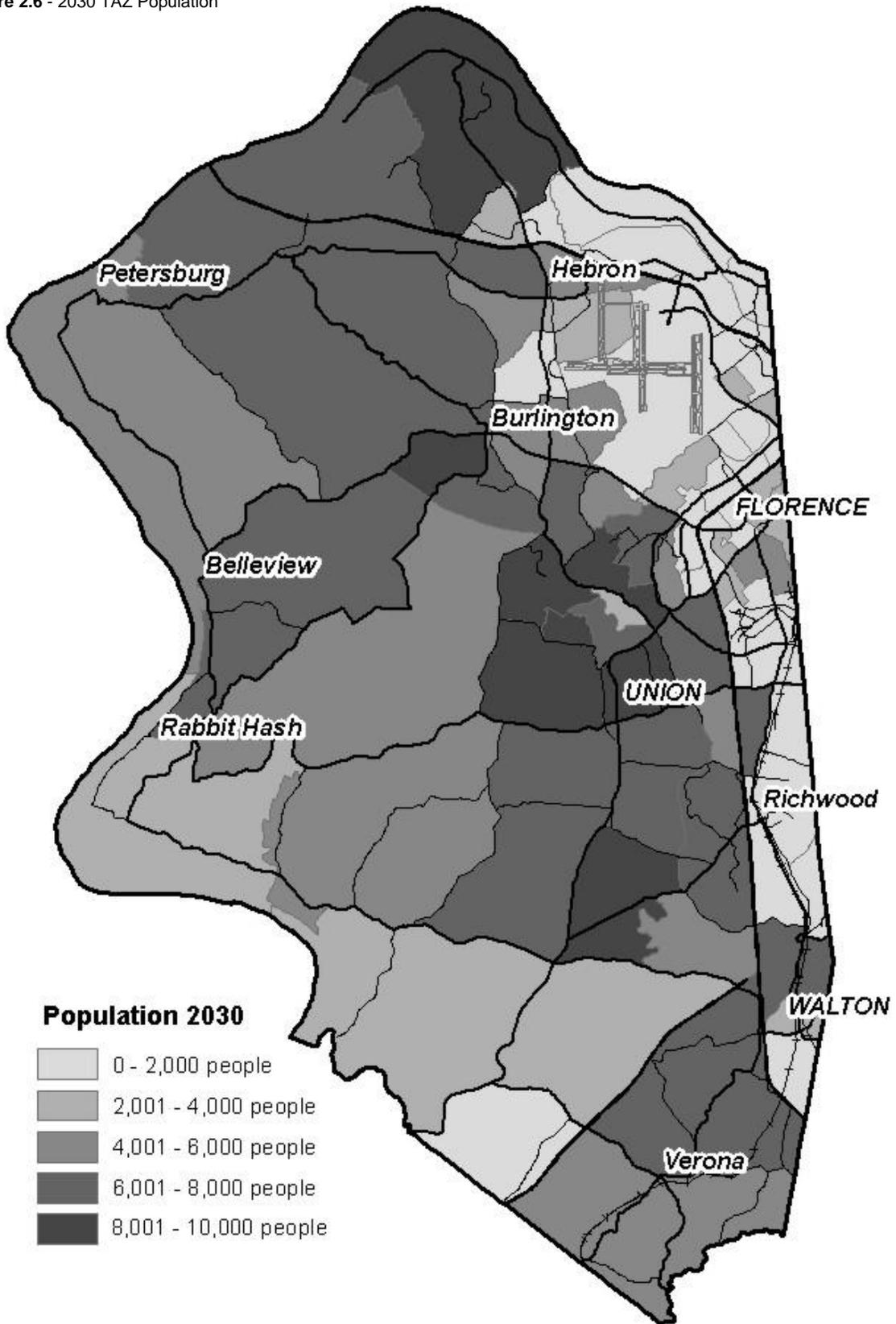


Figure 2.7 - OKI TAZ "regions"



