



BOYD AND GREENUP COUNTIES, KENTUCKY



KYOVA

BOYD AND GREENUP COUNTIES TRANSIT STUDY

Prepared for:



KYOVA Interstate
Planning Commission
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FINAL STUDY
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This report was prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the West Virginia Department of Transportation (WVDOT/WVDOT), the Kentucky Transportation Cabinet (KYTC), the Ohio Department of Transportation (ODOT) and local communities. The contents of this report reflect the views of KYOVA Interstate Planning Commission which is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the West Virginia Department of Transportation (WVDOT/WVDOT), the Kentucky Transportation Cabinet (KYTC), the Ohio Department of Transportation (ODOT), the U. S. Department of Transportation, the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA). This report does not constitute a standard, specification or regulation.

INTRODUCTION

The KYOVA Interstate Planning Commission is the Metropolitan Planning Organization (MPO) for the Huntington, WV-KY-OH Transportation Management Area (TMA) of Cabell, Wayne, and a portion of Putnam County, WV, Boyd and Greenup counties, KY, and Lawrence County, OH. KYOVA has an agreement with the Regional Intergovernmental Council (RIC) to retain the planning functions for a portion of Putnam County, WV. As the region’s MPO, KYOVA is responsible for ensuring wise and coordinated use of federal- and state-level transportation funds. The planning boundary for KYOVA is shown in the map below in Figure 1.

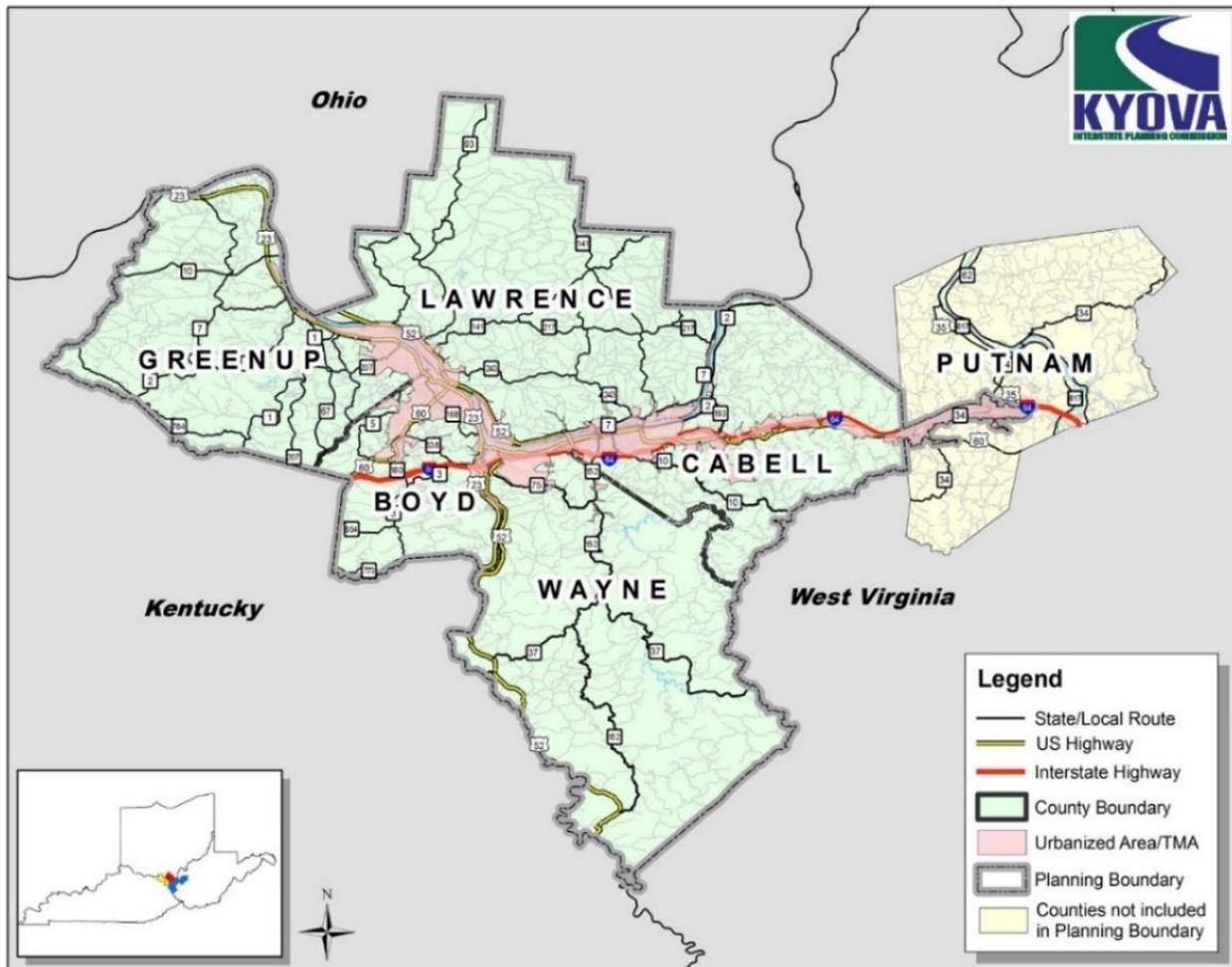


Figure 1: KYOVA Region Planning Boundary

To further these objectives, KYOVA commissioned the development of the Greenup and Boyd County Transit Study. The purpose is to examine the fixed route and human services transit accommodations that exist within the KY portion of the MPO, and to identify strategies to better connect with the larger region. The Existing Conditions Memorandum highlights and assesses demographics, economics, and fixed route transit services within Boyd and Greenup Counties, as well as within the MPO area. This data helps better understand people’s travel patterns both within and outside Boyd and Greenup Counties. This report provides a summary of existing conditions, a high-level analysis of existing transit gaps, and local and regional policy and service recommendations. Please note that portions of this report were created using data from 2016 and may not reflect the most recent changes to transit in the study area. All maps are included in PDF form at the end of this document.

EXISTING CONDITIONS

POPULATION ESTIMATES

The Huntington-Ironton-Ashland urbanized area became a TMA in 2010, meaning the area attained a population greater than 200,000. TMAs are subject to special planning and programming requirements. Following the urbanized area’s designation as a TMA, the KYOVA Interstate Planning Commission merged with the Ashland Metropolitan Planning Organization to form a single agency. At this time, KYOVA assumed the responsibility for metropolitan planning within Boyd and Greenup Counties in Kentucky.

Boyd and Greenup Counties have both experienced a slight population decrease within the last decade.

Geography	2000	2011*	2014*
Boyd County	49,752	49,368	49,242
Greenup County	36,891	36,974	36,656

Data Source: U.S. Census Bureau (* indicates ACS 5-year estimates)

According to 2011 American Community Survey (ACS) 5-year estimates, Boyd County had 49,368 people and Greenup County had 36,974. 2014 estimates show a slight decrease in population in both counties. ESRI BAO Population Forecasting shows the combined 2020 population of the two counties will be 85,336, showing a decrease of about 500 people. Households in the two counties follow a similar trend to population, with a nominal decrease from 34,546 in 2000 to 34,294 in 2015. Household size largely remained the same.

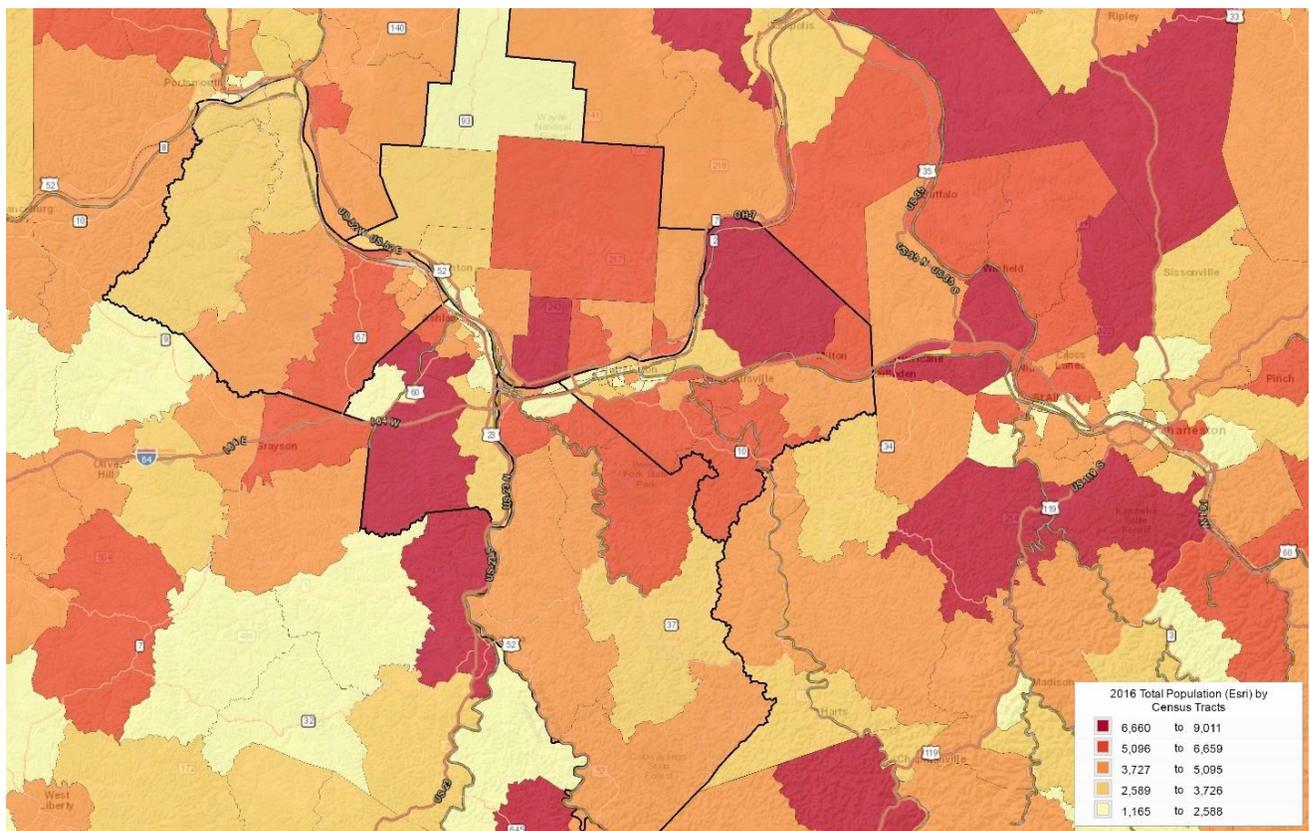


Figure 2: KYOVA Region Total Population

TRAVEL PATTERNS

TRAVEL TO WORK

Out of the approximately 31,000 workers (age 16+ years), 85% of the population in Greenup and Boyd Counties drives alone. An additional 10% carpool to work. 2.1% of the population use walking as their primary travel mode. Public transportation accounts for only 0.3% of resident workers in the two counties. The remaining percentage of workers either worked from home or used other means of traveling.

Means of Transportation to Work	Total	Percent
Drove Alone	26,200	84.7%
Carpooled	3,133	10.1%
Public Transportation	96	0.3%
Walked	662	2.1%
Other means	279	0.9%
Worked at home	547	1.8%
Total	30,945	100%

Data Source: U.S. Census Bureau (2009-2013 ACS 5-Year Estimates)

TRAVEL TIME TO WORK

75% of the workers in Greenup and Boyd Counties (excluding those who work from home) have a commute time of less than 30 minutes. Nearly 95% of the population has a commute time of less than one hour. The average travel time to work for commuters is 22 minutes.

Travel Time to Work	Total	Percent
Less than 10 minutes	5,727	18.8%
10-19 minutes	10,660	35.1%
20-29 minutes	6,229	10.5%
30-39 minutes	4,191	13.8%
40-59 minutes	1,934	6.4%
Over 60 minutes	1,657	5.5%
Total	30,398	100%

Data Source: U.S. Census Bureau (2009-2013 ACS 5-Year Estimates)

EMPLOYMENT (SOURCE: LEHD ON THE MAP, 2014)

People travel from all over the larger 5-county area of the MPO to work in Greenup, Boyd, Lawrence, Cabell, and Wayne Counties. Jobs are concentrated heavily along the Ohio River, US-23 and US-52. Large concentrations of people work in Flatwoods, Russell, Ashland, Ironton, Kenova, Ceredo, Huntington, and Barboursville.

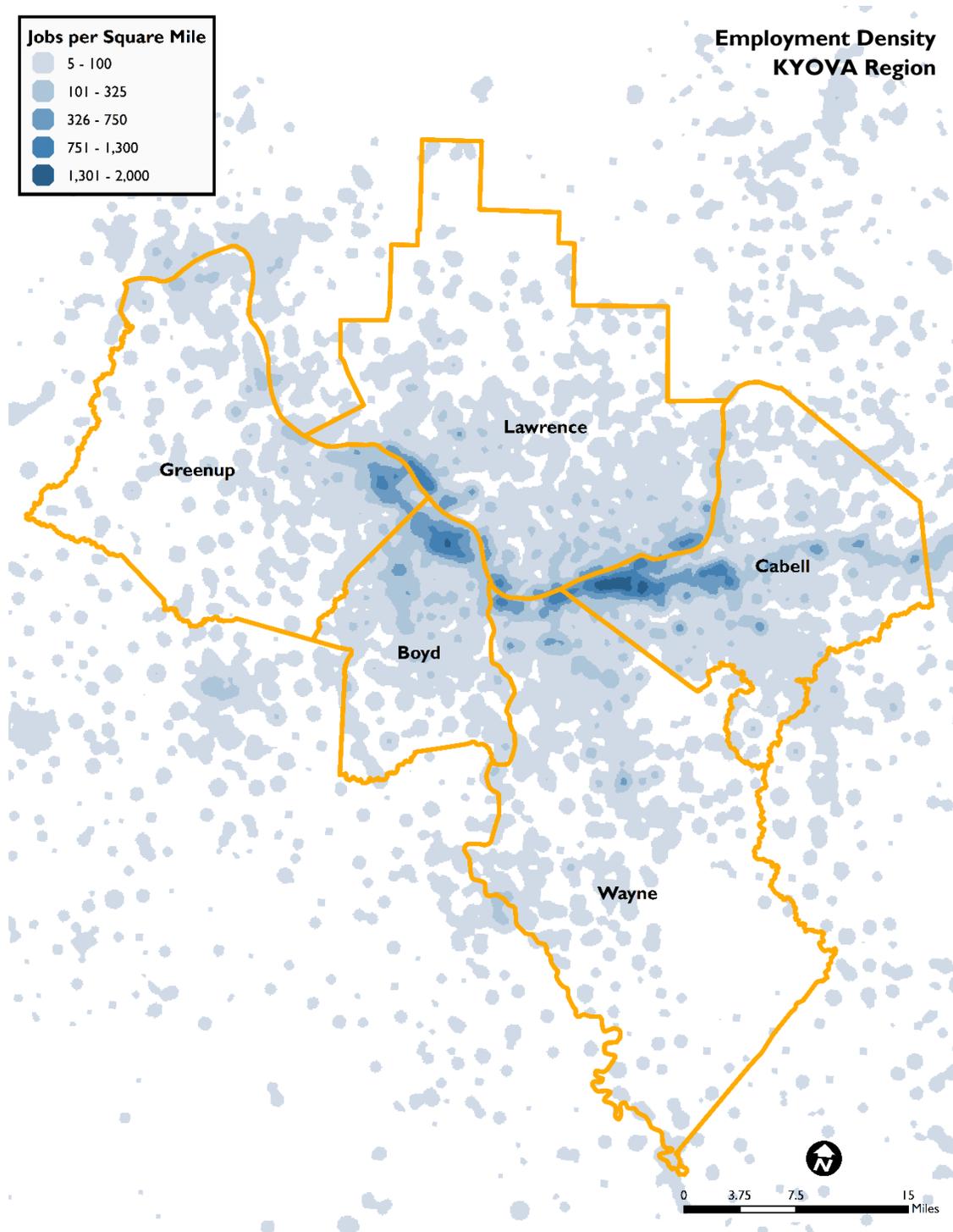


Figure 3: KYOVA Region Employment Density

Individuals working in the five-county MPO area primarily live within the same area. Concentrations of employees within the KYOVA area live largely along the Ohio River. Other notable concentrations are along US-60 in Boyd County, US-52/US-23 moving south along Boyd and Wayne Counties, and I-64 through Barbourville.

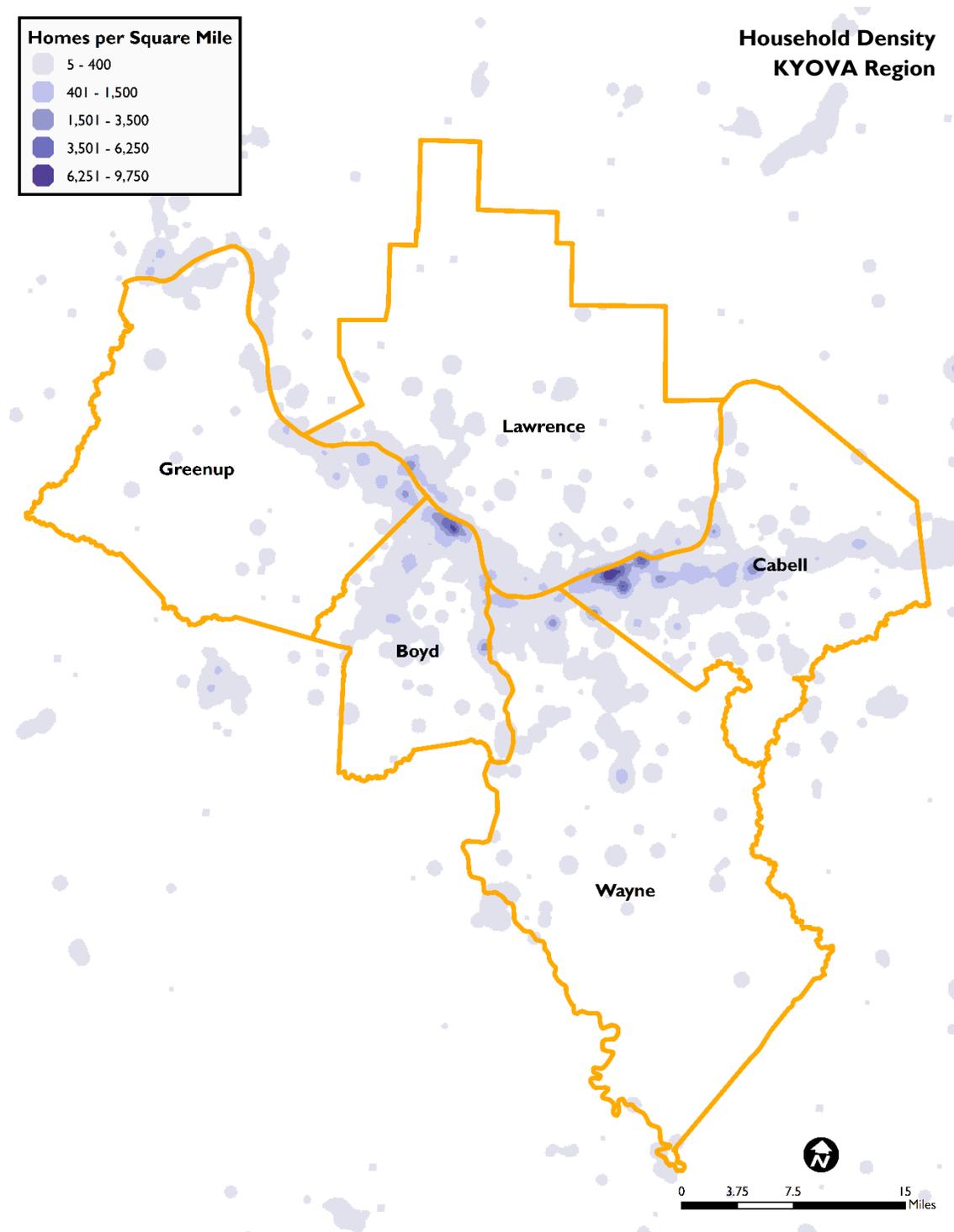


Figure 4: KYOVA Region Household Density

TRANSIT DEPENDENT POPULATIONS

POVERTY

Poverty is an important consideration for transportation options. The Federal Highway Administration (FHWA) found that households in poverty spend a higher proportion of income on transportation expenses and are often disproportionately represented by minority populations. As the highest users of multimodal travel modes (carpool, transit, bike, and walk), this segment of the population is most often in need of transportation solutions that can offer easier access to employment opportunities. Approximately 20% of the households located in Boyd and Greenup Counties are considered to be living under the national poverty level. The median household income is approximately \$41,980 while the per capita income is \$23,464.

Households by Income (Boyd & Greenup)	Total	Percent
Total	33,995	100.0%
Less than \$10,000	3,519	10.4%
\$10,000 to \$14,999	2,529	7.4%
\$15,000 to \$19,999	2,220	6.5%
\$20,000 to \$24,999	2,269	6.7%
\$25,000 to \$29,999	2,218	6.5%
\$30,000 to \$34,999	2,097	6.2%
\$35,000 to \$39,999	1,628	4.8%
\$40,000 to \$44,999	1,271	3.7%
\$45,000 to \$49,999	1,725	5.1%
\$50,000 to \$59,999	2,992	8.8%
\$60,000 to \$74,999	3,371	9.9%
\$75,000 to \$99,999	3,294	9.7%
\$100,000 to \$124,999	2,228	6.6%
\$125,000 to \$149,999	1,127	3.3%
\$150,000 to \$199,999	722	2.1%
\$200,000 or more	785	2.3%
Median Household Income	\$41,920	
Average Household Income	\$58,348	
Per Capita Income	\$23,464	

Data Source: U.S. Census Bureau (2009-2013 ACS 5-Year Estimates)

When looking at the five-county MPO area, median household income is significantly lower in the areas bound by US-52 and US -23 along downtown Ashland and Huntington, with census tracts marking median household incomes of less than \$29,000. The same trend is highlighted when looking specifically at the percentage of households living below the poverty level. This trend is decreases substantially right outside of those areas.

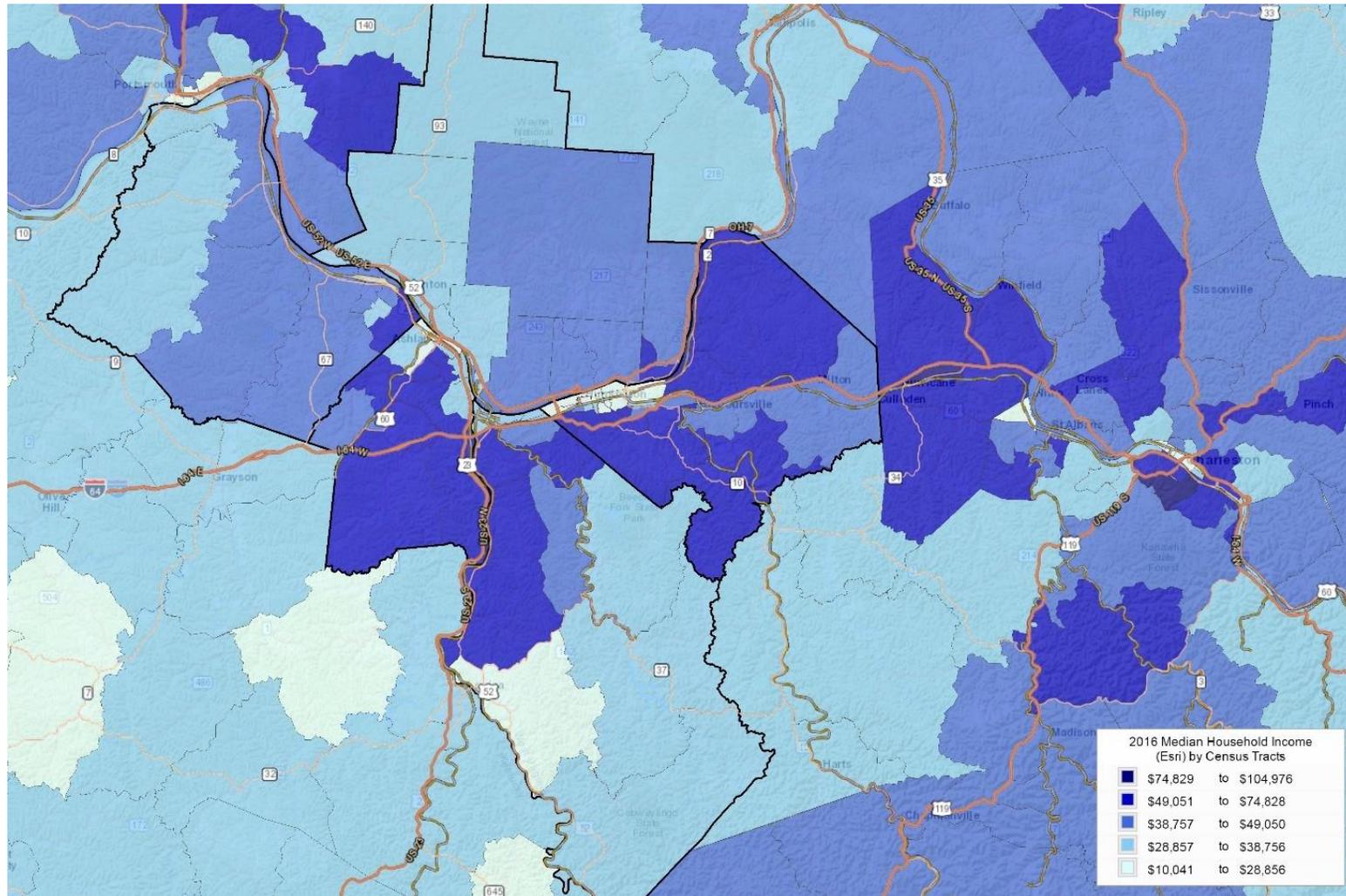


Figure 5: KYOVA Region Median Household Income

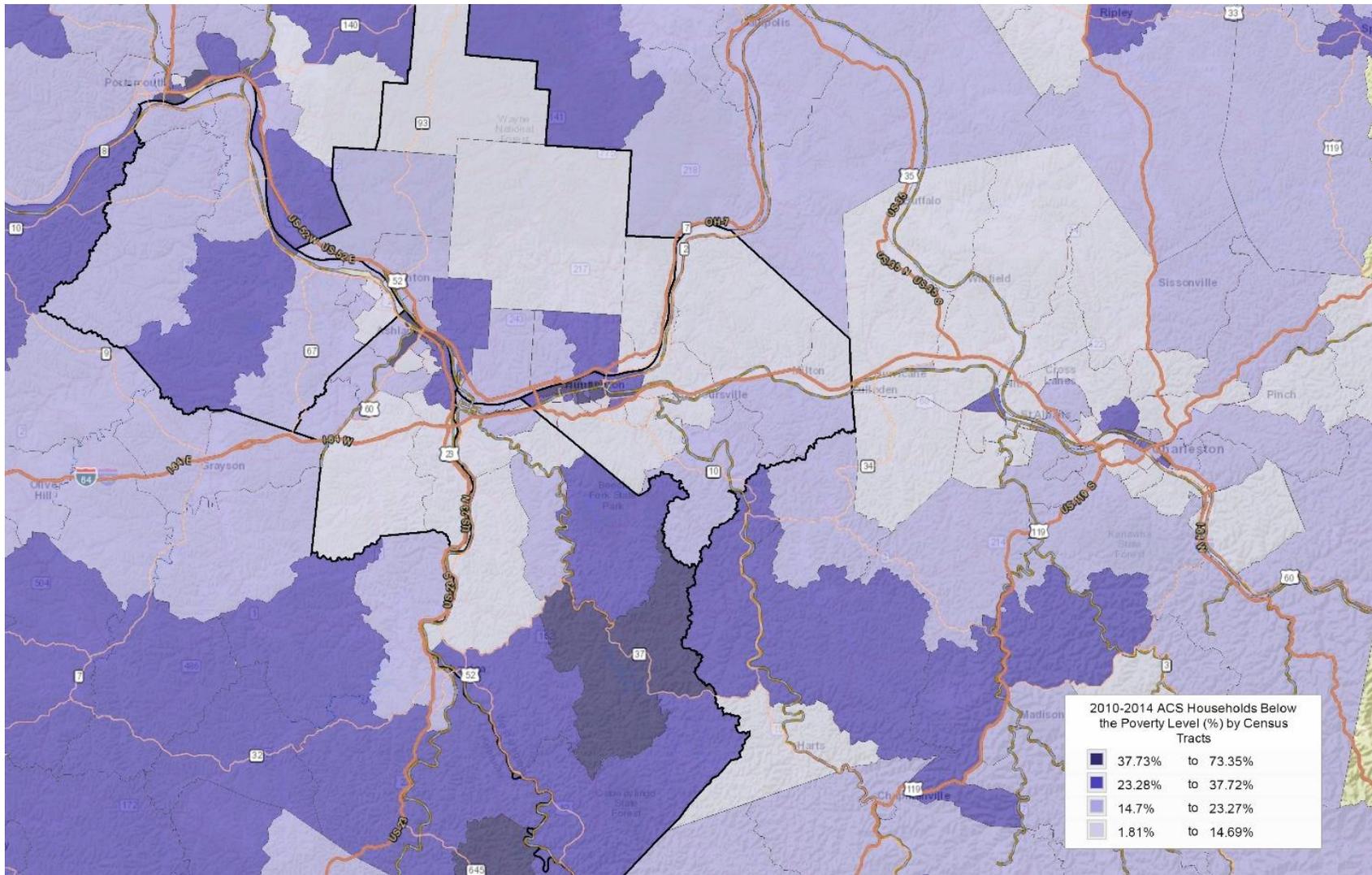


Figure 6: KYOVA Region Households Below the Poverty Level

OLDER PERSONS

Like other places in the country, Boyd and Greenup counties are witnessing an increase in age cohort of those over the ages 65. Across the nation, nearly 75% of older persons are living in areas that require a high-level of reliance on personal vehicles. As this population starts to “age in place”, their transportation needs will be different than working age cohorts. As the population starts to decide to drive less or are unable to drive, the population will likely look for public transportation to supplement their mobility needs. This presents a significant but familiar mobility challenge. By 2020, the population over 65 years of age is estimated to account for over 20% of the total population in Boyd and Greenup Counties.

Population (65+) (Boyd and Greenup Counties)	Percent
2010	16.8%
2015	18.8%
2020	21.2%

Data Source: U.S. Census Bureau (2009-2013 ACS 5-Year Estimates)

Looking at the geographic location of those in the 65 years and older range across the region, this cohort is concentrated particularly near Russell, Ceredo, Kenova, and south Huntington.

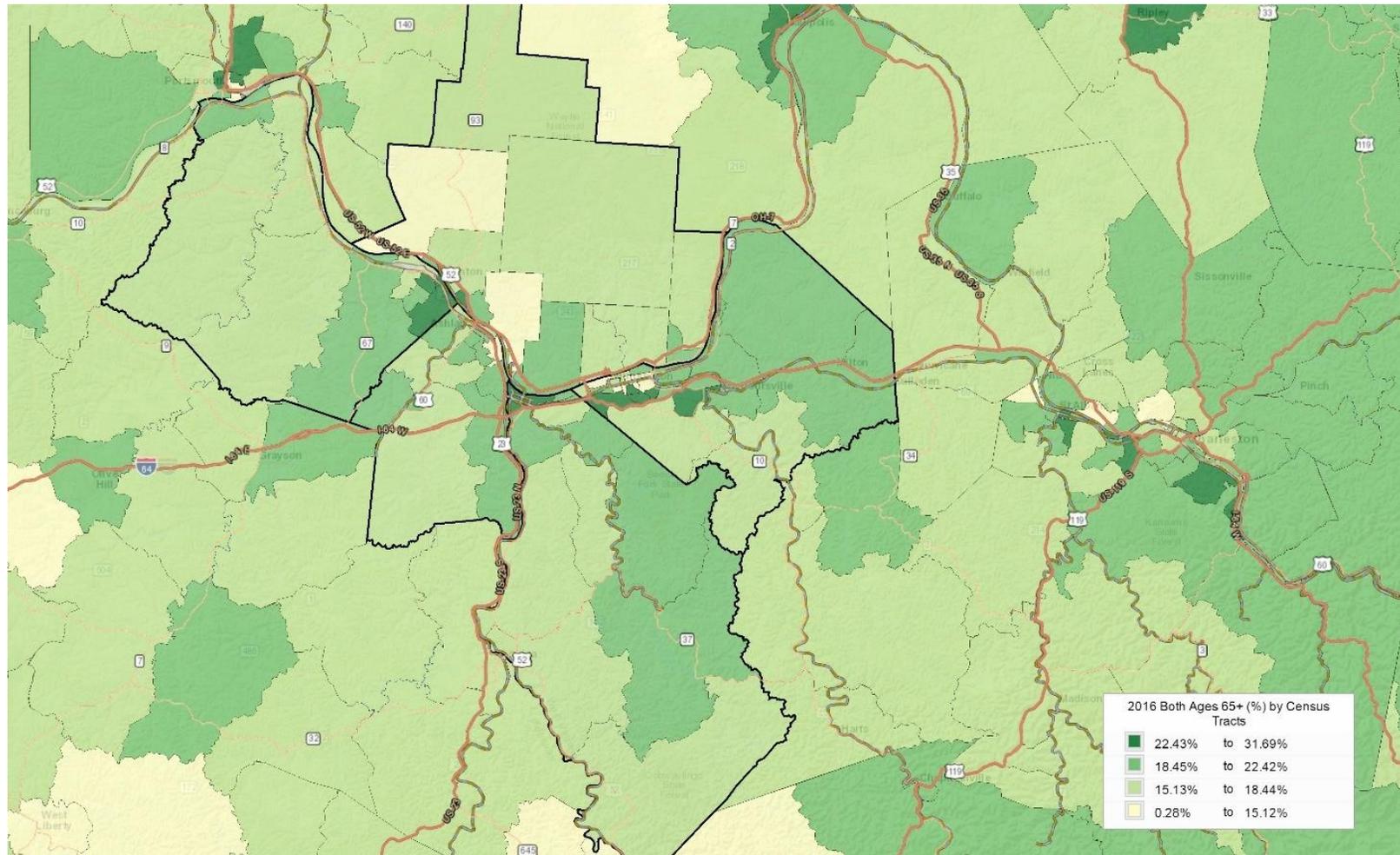


Figure 7: KYOVA Region Population 65 Years and Older

VEHICLE AVAILABILITY

Households without access to personal vehicles depend on biking, walking, taking transit, or sharing rides with others to meet their daily transportation needs. These are the community members who perhaps face the greatest mobility challenges on a daily basis. Transportation alternatives to personal vehicles are essential to ensure that residents can travel to work, and reach essential services and amenities. Out of the nearly 34,000 households in Greenup and Boyd Counties, approximately 8% of the households do not have access to a vehicle.

Occupied Housing Units by Vehicles Available		
Owner occupied	Total	Percent
No vehicle available	956	2.8%
1 vehicle available	6,338	18.6%
2 vehicles available	10,839	31.9%
3 vehicles available	4,591	13.5%
4 vehicles available	1,389	4.1%
5 or more vehicles available	385	1.1%
Renter occupied		
No vehicle available	1,732	5.1%
1 vehicle available	4,512	13.3%
2 vehicles available	2,425	7.1%
3 vehicles available	550	1.6%
4 vehicles available	202	0.6%
5 or more vehicles available	76	0.2%
Average Number of Vehicles Available	1.8	

Data Source: U.S. Census Bureau (2009-2013 ACS 5-Year Estimates)

When looking at zero-vehicle households, concentrations exist largely in Ashland, Ceredo, Kenova, and Huntington.

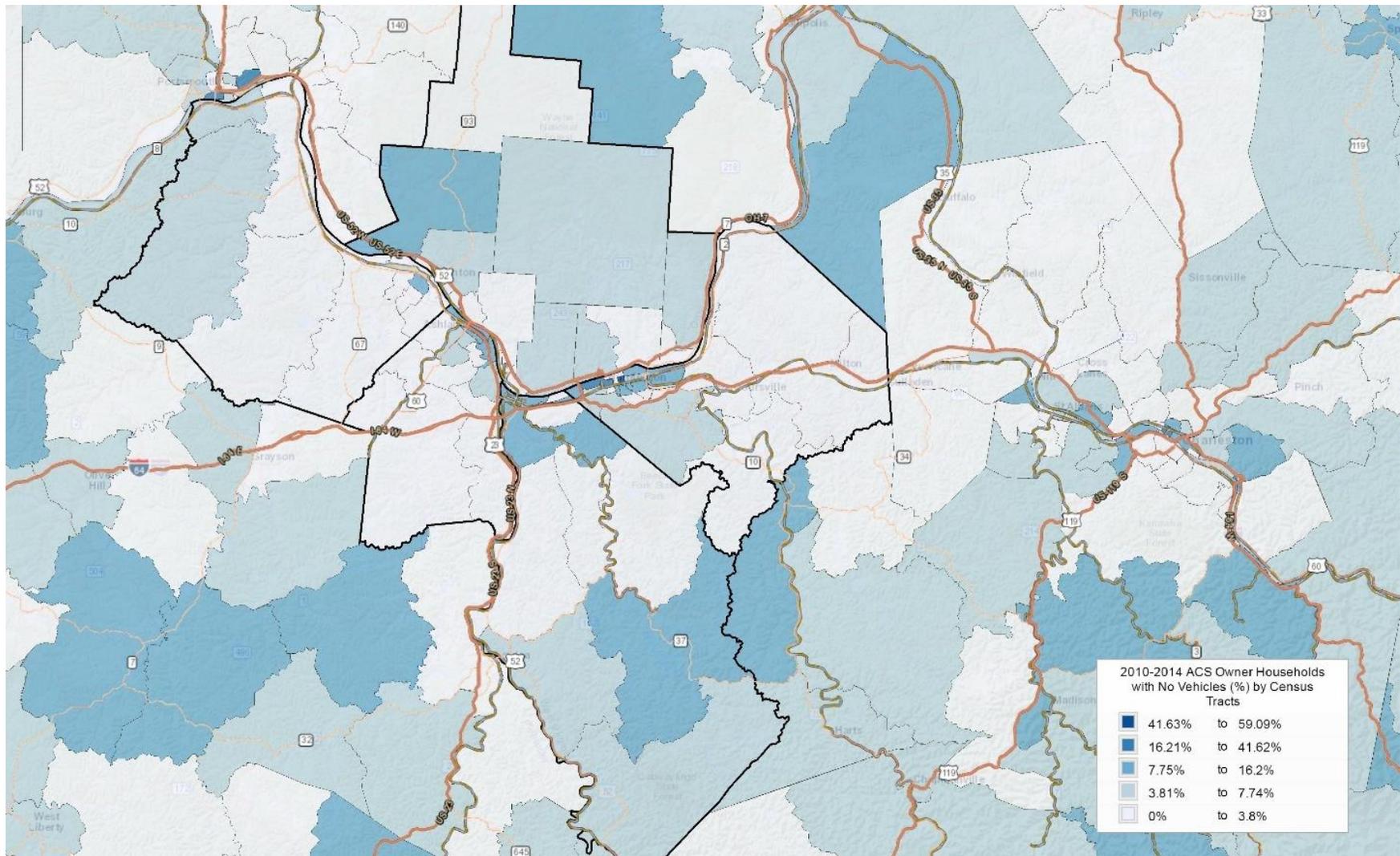


Figure 8: KYOVA Region Zero Vehicle Households

TRANSIT PROVIDERS

There are two public transportation organizations that operate fixed route transit service in the KYOVA region: Tri-State Transit Authority (TTA) and Ashland Bus Service (ABS). There is also one public transportation organization that operates a deviated fixed route service in the KYOVA region: Tri-River Transit Authority operating Wayne X-Press. A map of the fixed routes is shown below. (Update: As of July 1, 2017, Lawrence County Transit of the Lawrence County Port Authority will begin operating fixed route service.)

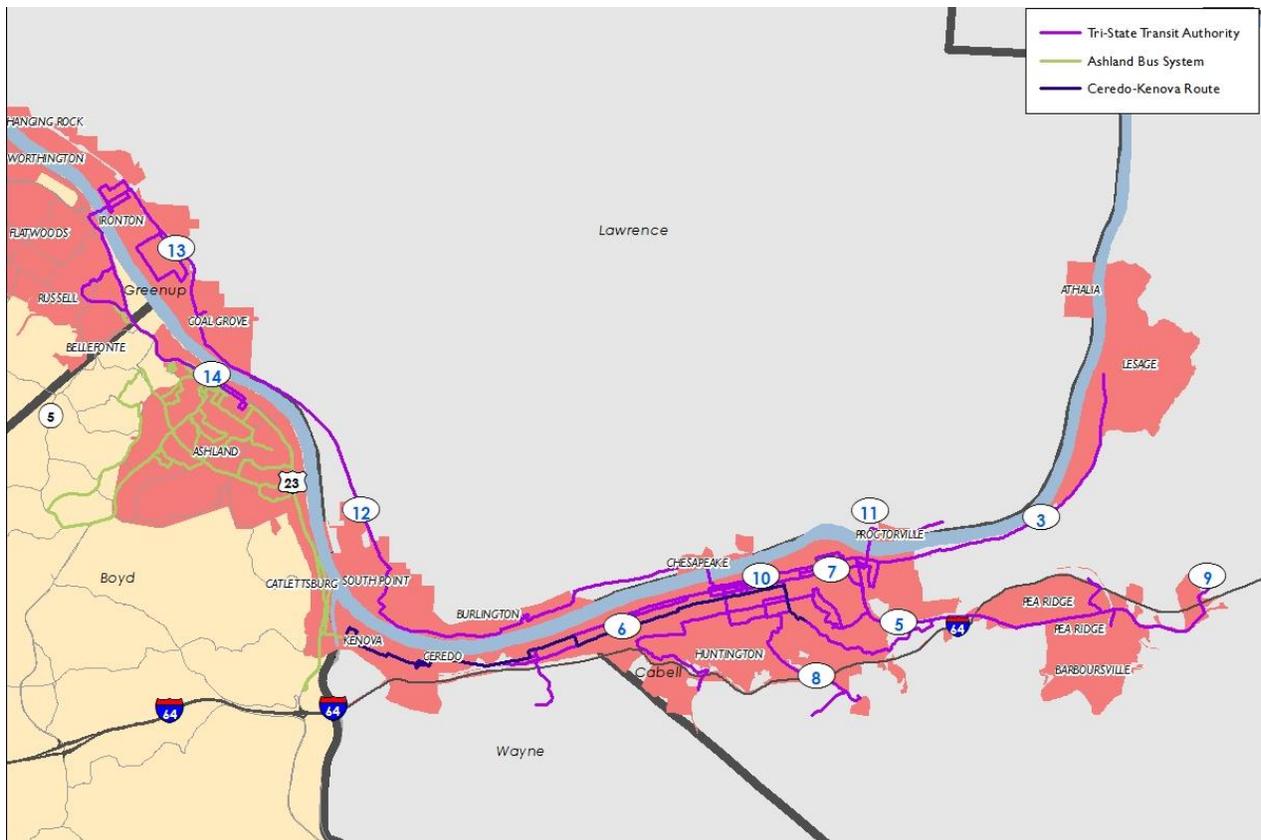


Figure 9: Regional Fixed Route Service

Other transportation services are offered in this area by a number of Human Service Transportation Agencies (HSTAs):

- Northeast Kentucky Community Action Agency – Kentucky
- Cabell-Wayne Association of the Blind, Inc. – West Virginia
- Cabell County Community Services Organization (CCCSO) – West Virginia
- Area Agency on Aging District 7, Inc. (AAA7) – Ohio
- Lawrence County Jobs and Family Services – Ohio
- Lawrence County Mental Retardation/Developmental Disabilities (MR/DD) – Ohio

TRI-STATE TRANSIT AUTHORITY (TTA)

TTA provides various transportation services in Cabell County as well as Lawrence County, under contract with the County's Port Authority. The services include fixed route, ADA paratransit, and non-emergency medical transportation trips. TTA offers the following fixed routes:

- Route 1 – Ceredo/Kenova
- Route 2 – Vo-Tech Center/Huntington Hospital/Prester Center (Southside)
- Route 3 – Third Avenue
- Route 4 – 9th & 11th Avenue
- Route 5 – Walnut Hills/Walmart/Internal Medicine Group
- Route 6 – Madison Avenue
- Route 7 – Barboursville
- Route 8 – Hal Greer/John Marshall Medical Center/Pullman Square
- Route 9 – Milton
- Route 10 – Marshall Shuttle
- Route 10.1 – Marshall Shuttle
- Route 11 – Burlington Walmart, Ironton Transit Cafe, Ashland Depot, Ceredo Plaza
- Route 12 – Ceredo Plaza, Ashland Bus Depot, Ironton Transit Cafe, Burlington Walmart
- Route 13 – Pullman Square, Chesapeake Community Center, Ohio University, Rome, St. Mary's Hospital, Marshall University
- Route 14 – Pullman Square, Chesapeake, Burlington, Wal-Mart
- Route 20 – PM South/Late Service (Walnut Hills/Wal-Mart/Pea Ridge Plaza/Target/Huntington Mall)
- Route 30 – PM North/Late Service (K-Mart/Wal-Mart/Huntington Mall)
- Route 40 – PM West/Late Service (Washington Avenue/Madison Avenue/Kinetic Park)

TTA operates 9 fixed bus routes as well as a shuttle service serving Marshall University-Pullman Square. TTA Ohio operates 4 routes in Lawrence County with weekday service. Three evening routes (20, 30, 40) are offered until 11 PM that serve larger activity centers. In general, the TTA provides services Monday through Saturday and does not operate on Sundays or major holidays. Services are typically offered from around 6 AM to 7 PM. Operating times shift based on the route and the types of riders served.



KEY CONSIDERATIONS

The following service statistics for TTA were obtained from the National Transit Database for the year 2014.

- Annual unlinked trips: 927,895
- Operating expenses per Vehicle Revenue Hour: \$39.97 for Demand Response; \$97.70 for Bus
- Operating expenses per Unlinked Passenger Trip: \$19.71 for Demand Response; \$6.50 for Bus
- Buses operating in maximum service: 10 for Demand Response; 27 for Bus

The maps on the following page display the fixed routes offered in West Virginia and Ohio by TTA. Route numbers are labeled in blue.

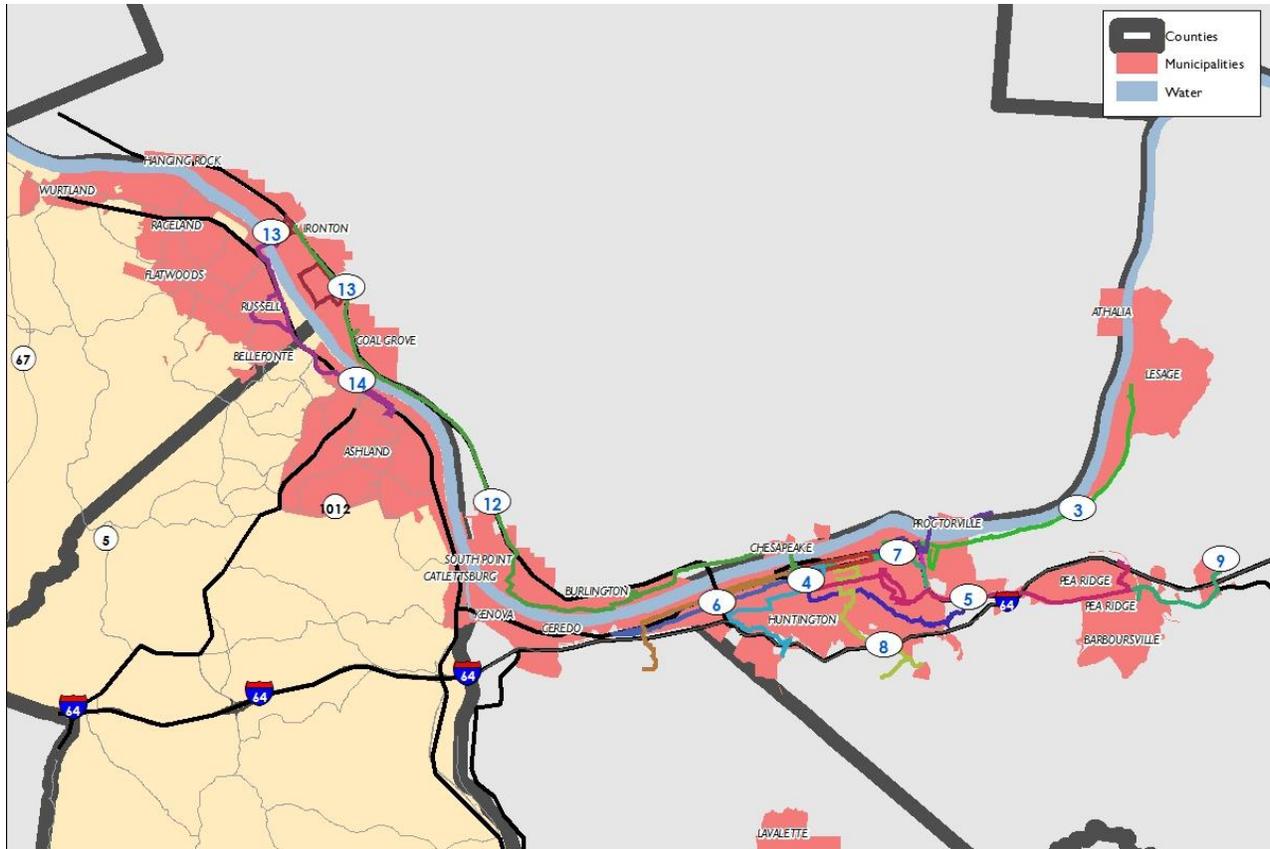


Figure 10: Tri-State Transit Authority Fixed Routes

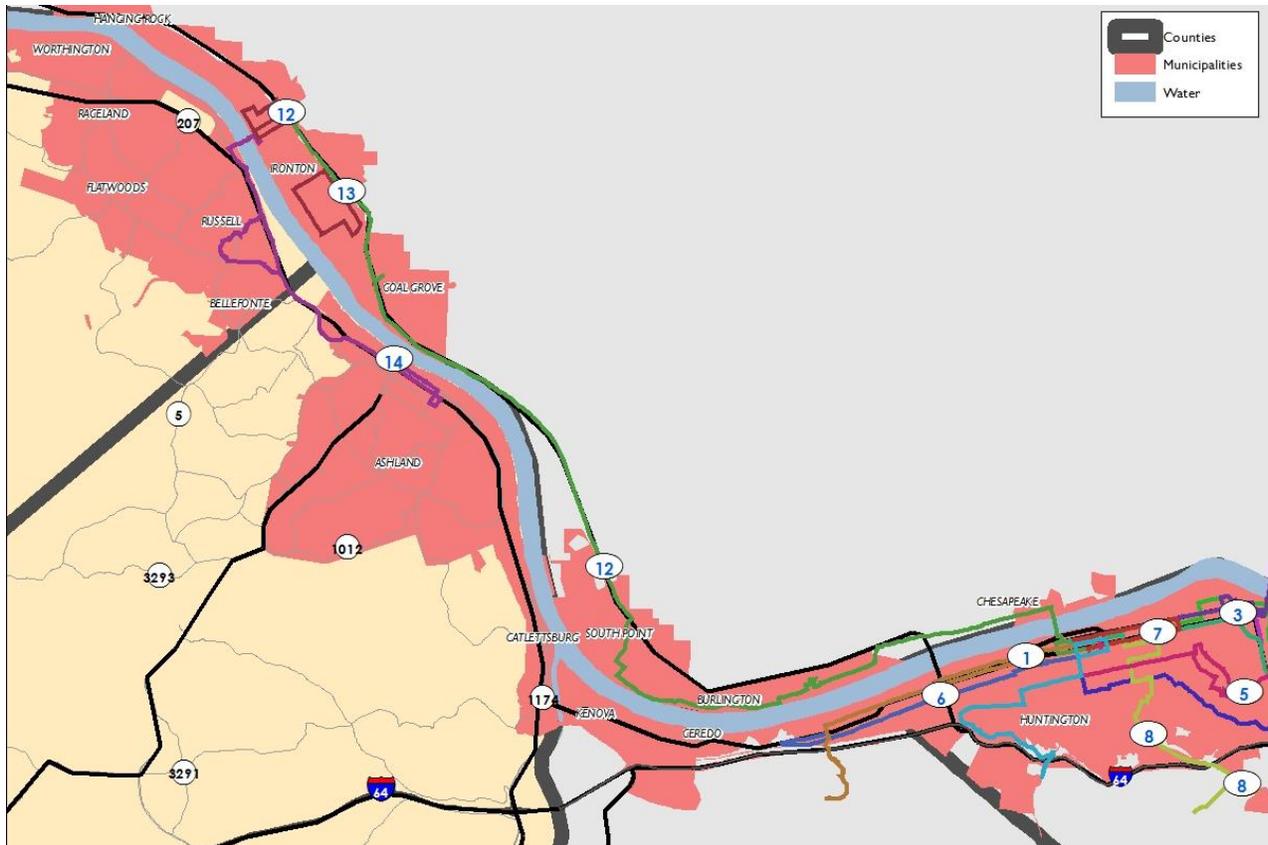


Figure 11: Tri-State Transit Authority Fixed Routes

ASHLAND BUS SYSTEM

The City of Ashland Bus System (ABS) operates routes throughout Ashland and adjacent communities. The routes include:

- 13th Street (Kroger, Save-a-lot, Library)
- Crosstown (Kroger, Blackburn (various stops), Scope Towers)
- 29th Street (YMCA, ACTC, Kroger)
- Catlettsburg (Courthouse, Foodland, Scope Towers)
- Downtown (Wal-Mart, Aldi, Kroger, Mall)

The routes resemble a hub-and-spoke approach with buses starting at the Historic Transportation Center at 99 15th Street. All the routes operate Monday through Friday except for the 13th Street route. Service typically starts at 7-8AM and ends at 5:30PM.



KEY CONSIDERATIONS

The following service statistics for the Ashland Bus Service were obtained from the National Transit Database for the year 2014. The map below displays the fixed routes offered by the Ashland Bus Service.

- Annual unlinked trips: 139,073
- Operating expenses per Vehicle Revenue Hour: \$28.51 for Demand Response; \$73.54 for Bus

- Operating expenses per Unlinked Passenger Trip: \$17.72 for Demand Response; \$6.12 for Bus
- Directly operated buses: 4 for Demand Response; 6 for Bus

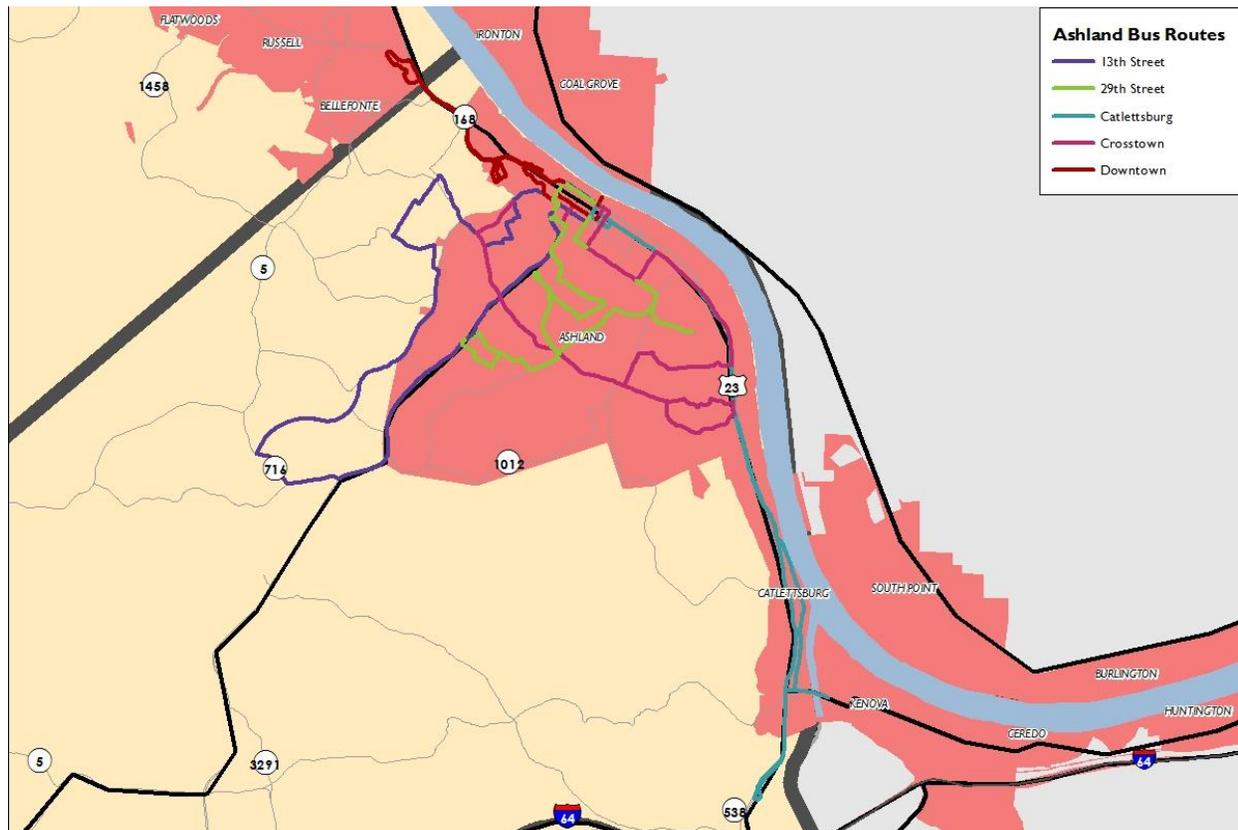


Figure 12: Ashland Bus Service Fixed Routes

WAYNE X-PRESS

Wayne X-press is a service of Wayne County Community Services Organization, Inc. (WCCSO), and operates both deviated fixed route and non-emergency medical transportation services in Wayne County. These routes include:

- Mountaineer (Jennies Creek, Crum, Rt. Fork Bull Creek, Steeptown)
- Dunlow (Big Branch, Licklog, Brush Creek, Dunlow Center)
- Ft. Gay (Forth Gay Exxon, High St., Vancouver St., Cass St., Palace St., Apperson St., Fort Gay Center)
- Pioneer (Newcomb, Big Branch, DHHR, Wayne Center, Charter House, Kenova Ave., Wilson Ck., Wal-Mart)
- Wayne to Trout Hill Route
- Wayne to Huntington Route

The routes listed above accommodate route deviation—meaning that passengers can be picked up or dropped off within ¾ mile of a bus route. Service operates from Monday through Friday and typically operate within limited hours between 7AM to 5PM. Routes such as Mountaineer and Dunlow operate one outbound and one inbound trip a day. Reservations must be made at least one day before the trip occurs. The bus fare with trip deviation is \$2.00. Wayne X-Press also offers connections to the TTA system via the Wayne to Huntington Route.



KENTUCKY HUMAN SERVICE TRANSPORTATION AGENCIES

NORTHEAST KENTUCKY COMMUNITY ACTION AGENCY (NKCAA)

The NKCAA provides rural transportation services for residents of Boyd, Carter, Elliott, Greenup, and Lawrence Counties. The services are available to the general public but citizens typically use the service to get to work and social services. Services are provided Monday through Friday from 8AM-5PM. The transportation service that is provided aims to help with last-mile connections between the non-urbanized area and the larger public transportation systems that are provided in the area. The Intercity Bus Service is operated on a demand response basis and the fare is \$5 a trip. The NKCAA also provides connections to the Greyhound Bus in Ashland, Morehead, and Lexington.

In the case that the NKCAA cannot provide a connection to a larger transit system, NKCAA offers demand responses that require a 24-hour notice for scheduling rides. Rates are typically as follows:

- In city limits: \$1.00 per stop
- 1-5 miles: \$5.00 per round trip
- 6-20 miles: \$10.00 per round trip
- 21-50 miles: \$25.00 per round trip
- Over 50 miles: \$1.00 per mile per round trip (\$25 + \$1 per mile over 50)



NKCAA services are funded through contract revenue and the Office of Transportation Delivery.

WEST VIRGINIA HUMAN SERVICE TRANSPORTATION AGENCIES

CABELL-WAYNE ASSOCIATION OF THE BLIND, INC

The Cabell-Wayne Association of the Blind, Inc. is a private, non-profit agency that provides free transportation (among other assistance) to those who are visually-impaired. Trip purposes typically include employment, school, and medical needs. The group receives no financial support from the FTA or from the state but rather operates through donations and fundraising organizations.



CABELL COUNTY COMMUNITY SERVICES ORGANIZATION (CCCSO)

CCCSO is also a private, non-profit agency that provides transportation (among other types of assistance) to the disadvantaged community (elderly, low income, disabled citizens). CCCSO's transportation program operates under donations, Medicaid, and a levy from Cabell County. The services provided are typically for medical and shopping purposes.



OHIO HUMAN SERVICE TRANSPORTATION AGENCIES

AREA AGENCY ON AGING DISTRICT 7, INC. (AAA7)

The AAA7 is a private, non-profit that is designated by the state to serve as the administrative agency for several federal and state programs. These programs provide services for the elderly and those with disabilities. AAA7 refers people to other providers of transportation services based on their needs. AAA7 relies on the Ironton-Lawrence County Community Action Organization to provide service to its users in Lawrence County.

IRONTON-LAWRENCE COUNTY COMMUNITY ACTION ORGANIZATION (ILCAO)

The Ironton-Lawrence County CAO agency provides demand response services for residents of Lawrence County. This service is primarily focused on getting people from their homes to the fixed route service offered by TTA-Ohio, the service that Lawrence County Port Authority authorizes through TTA.

LAWRENCE COUNTY JOBS AND FAMILY SERVICES (JFS)

The Lawrence County JFS offers non-emergency transportation services administered by the County for eligible Medicaid customers. Ample notice is needed for this benefit and the appointment that the customer is attempting to reach must be paid by Medicaid as well.



LAWRENCE COUNTY BOARD OF DEVELOPMENTAL DISABILITIES (LCBDD)

LCBDD provides transportation to citizens with developmental disabilities. Transportation services provided include trips for employment, school, and medical purposes. The program serves over 500 individuals of all ages.

GEOGRAPHIC GAP ANALYSIS

The gap analysis focuses in on geographic gaps. The geographic gap analysis leverages demographic data to identify locations of population groups who are more likely to require and use transit services.

For the geographic gap analysis, demographic data was obtained from the U.S. Census Bureau's 5-Year American Community Survey from 2010 to 2014. Data from the block group level within Boyd and Greenup Counties were used to accommodate a higher level of granularity. The following five demographic breakdowns were used for this analysis:

- Population Density
- Age (65 years and older)
- Household Income
- Minority
- Zero-Vehicle Households

ANALYSIS METHODOLOGY

Each demographic breakdown was analyzed separately and then summarized in the composite demographic analysis to look at geographic needs for transit in Boyd and Greenup Counties. A scoring system is the foundation of this analysis. The Huntington-Ashland, WV-KY-OH Metropolitan Statistical Area (MSA) was used as the base. If a given block group contained a percentage of the target demographic breakdown that was larger than the overall percentage of the MSA, it was given a score of 1 or 2. If the block group had a lower percentage of the target demographic breakdown, the block group was given a score of 0. The table below includes a breakdown of points and MSA base values for each demographic breakdown.

Table 1: Demographics of Huntington-Ashland, WV-KY-OH MSA

Demographic Breakdown	Huntington-Ashland, WV-KY-OH MSA
Population Density	167.4 persons per sq. mi.
0 points	Less than 167.4 persons per sq.mi.
1 point	More than 167.4 persons per sq.mi.
Percent of Population 65 Years and Older	17%
0 points	Less than 17%
1 point	More than 17%
Household Income (median)	\$42,766
0 points	Less than \$42,766
1 point	More than \$42,766
Percent Minority Population	5%
0 points	Less than 5%
1 point	More than 5%
Zero-Vehicle Households	2.5%
0 points	Less than 2.5%
2 points	More than 2.5%

COMPOSITE GAP ANALYSIS

The results of this analysis show areas with the highest transit propensity are in red and orange. Areas with low composite scores are in blue and green, indicating low demographic need and low propensity for transit. For Boyd and Greenup Counties, the areas of highest need generally follow US 23 and are largely concentrated in the municipalities that line the Ohio River.

Both the TTA and ABS offer fixed route transit services in a concentrated portion of this area identified with high transit propensity, from Russell to Ashland. TTA serves riders along US 23 from Russell to Ashland on Route 14 with connection opportunities to Ironton through TTA Route 13. ABS offers all five of their routes in the larger Ashland area from just south of Russell to Kenova.

The analysis also highlights areas in the two-county region that have high propensity for transit but currently do not have any fixed route services. This area is concentrated starting in Greenup and follows US 23 along Wurtland, Flatwoods, and Raceland. Other notable concentrations of underserved areas with high transit propensity are near the I-64 corridor, west of the Ohio River, and South Shore.

Based on this demographic analysis, the following roadways warrant consideration for expanded bus service:

- US 23
 - North of Ashland to the City of Greenup
- Industrial Parkway (KY 67)
 - North of Argillite Road to US 23
- East Kentucky Road (KY 1)
 - North of Argillite Road to US 23
- Caroline Road/Bellefonte Road (KY 693)
 - US 23 to US 23 (loop)
- Bellefonte Princess Road (KY 5)
 - US 23 to US 60

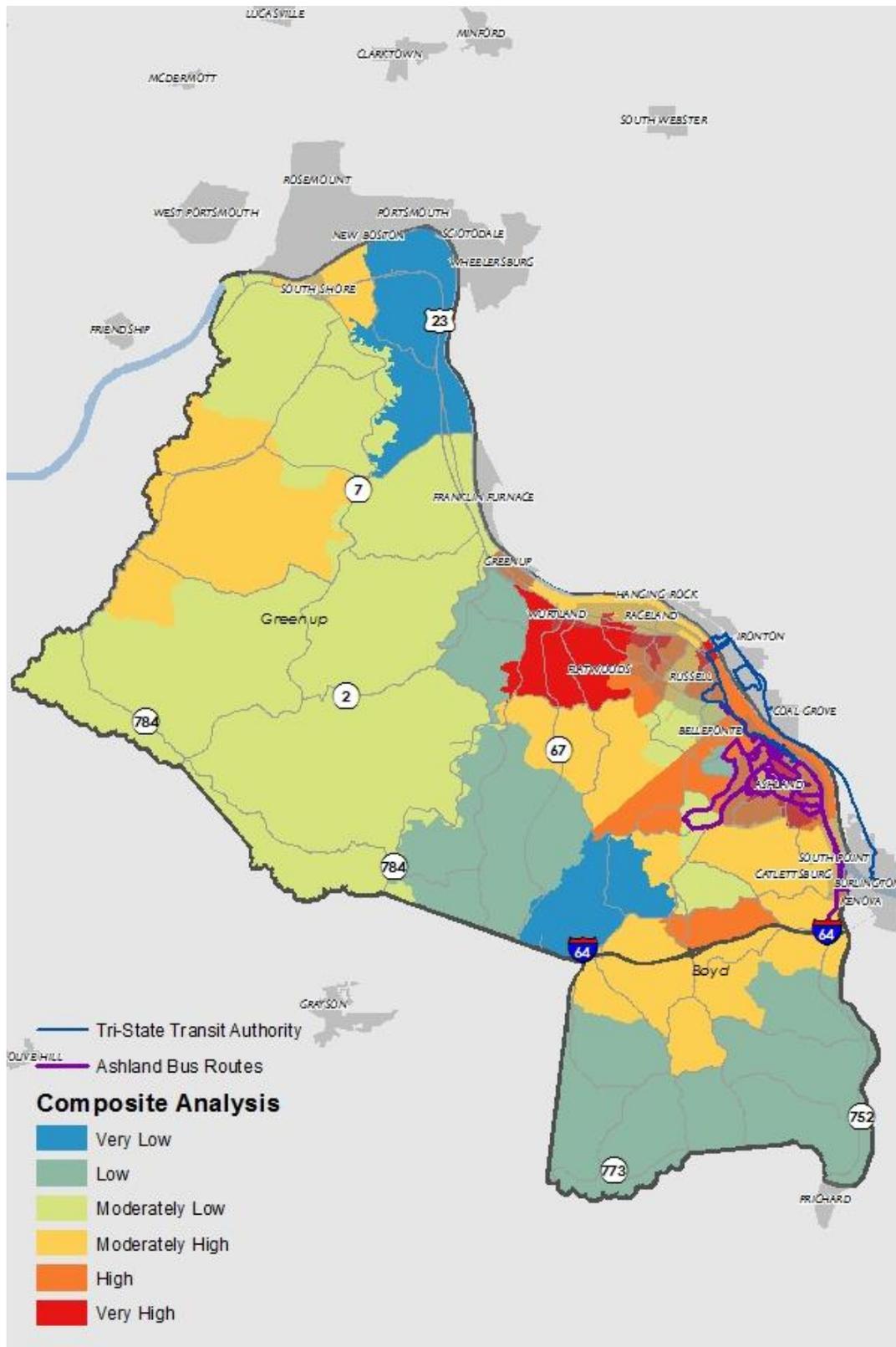


Figure 13: Composite Analysis of Boyd and Greenup Counties

POPULATION DENSITY

Population density is an important measure in transit propensity because it considers the internal capture of all residents in the area. Average population density in the MSA is about 167 persons per square mile. In Boyd and Greenup Counties, areas that are above the MSA’s population density are centered around the eastern portion of the boundary between Boyd and Greenup Counties.

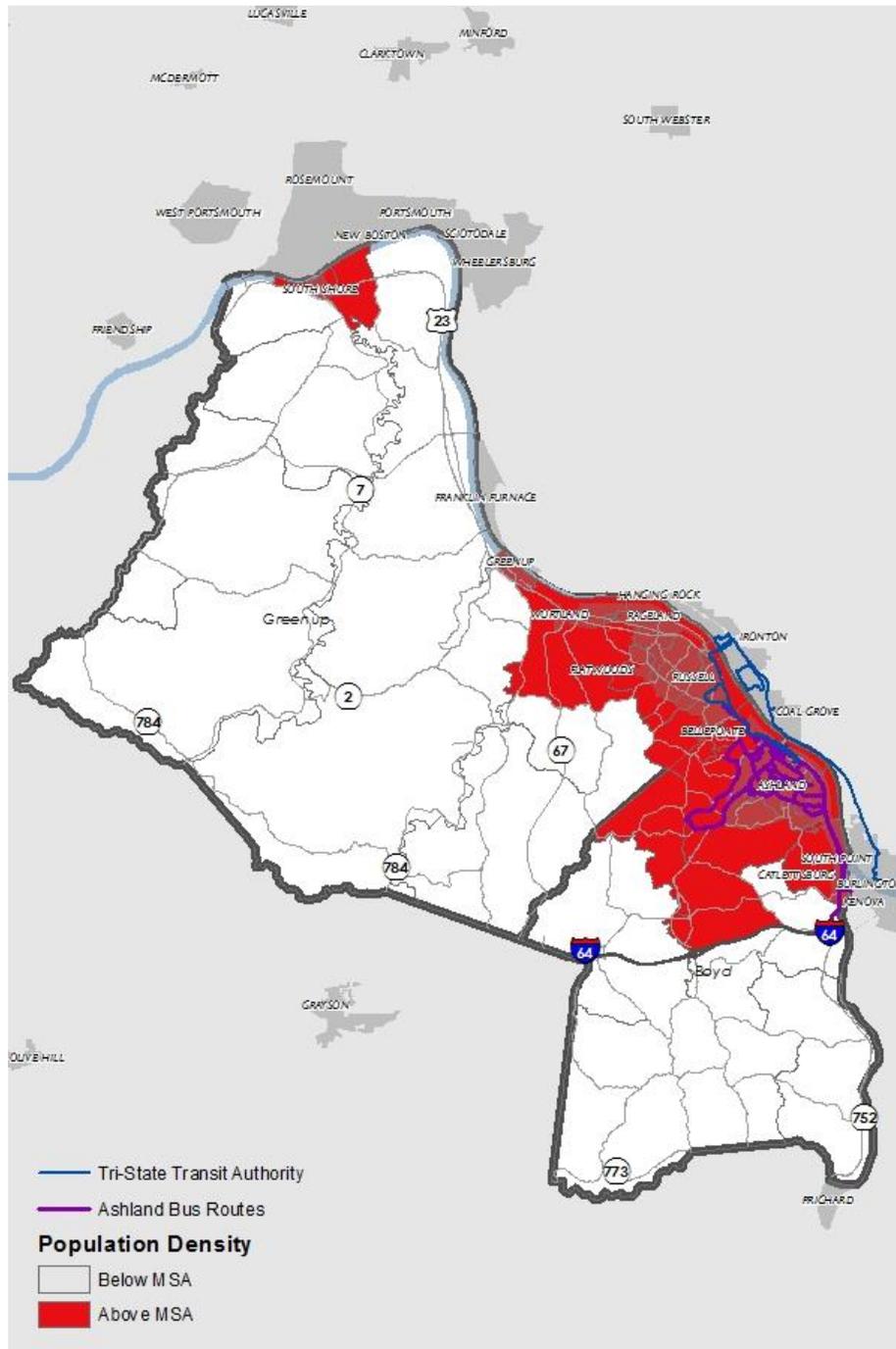


Figure 14: Population Concentrations in Boyd and Greenup Counties

AGE

Older persons travel differently as they reach retirement. This population may not be able to drive or may choose not to drive. With nearly 75% of the older persons across the nation living in areas that require a high-level of vehicular dependency, the transit system needs to respond to the needs of these users particularly if they choose to age in place. On average, about 17% of the population in the MSA are considered 65 years and older.

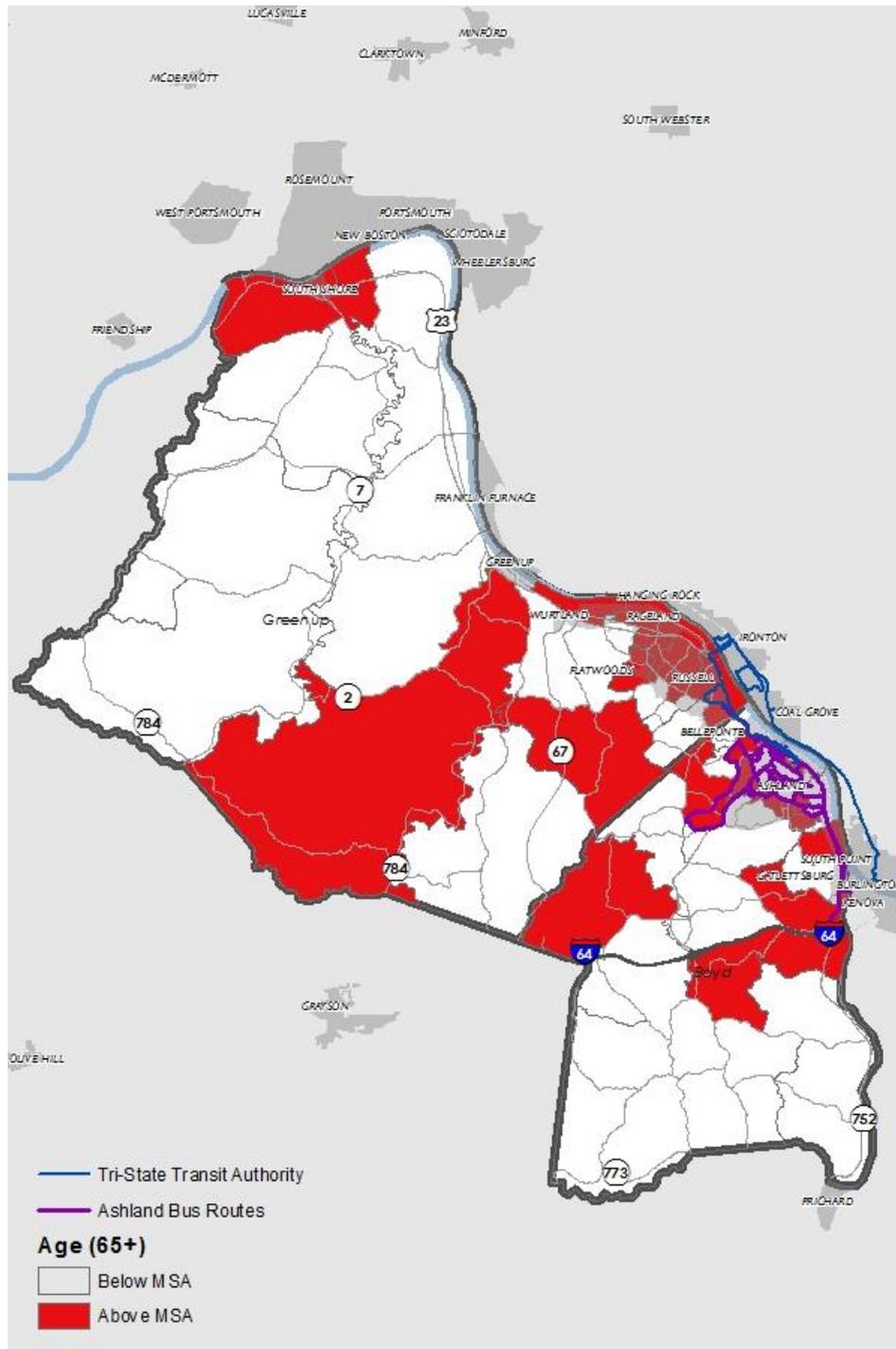


Figure 15: Concentrations of People Aged 65+ in Boyd and Greenup Counties

HOUSEHOLD INCOME (MEDIAN)

The Federal Highway Administration (FHWA) found that households in poverty spend a higher proportion of income on transportation expenses. Typically, this segment of the population is most often in need of transportation solutions that can offer easier access to employment opportunities. Areas that have a median household income lower than the MSA include the northern half of Greenup County and specific pockets of Boyd County near Ashland, Catlettsburg/Kenova/Burlington, and north of I-64.

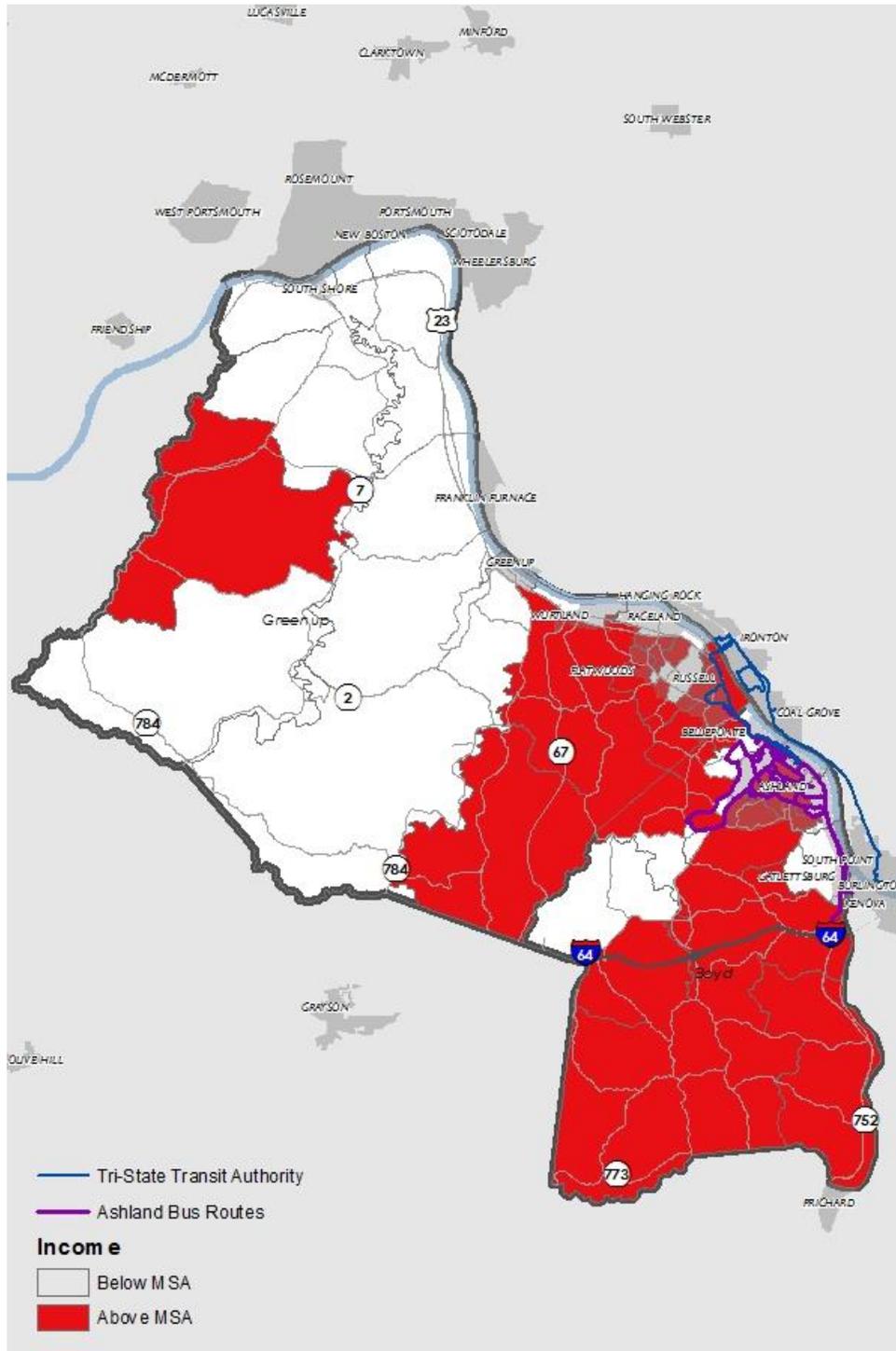


Figure 16: Low-Income Concentrations in Boyd and Greenup Counties

MINORITY

Federal transportation policy requires the consideration of needs of those traditionally underserved by existing transportation systems, such as low income and minority households. Understanding where concentrations of minority populations are located will help to ensure equitable transportation services for all racial groups. In the two-county region, there are two pockets of block groups that have a higher percentage of minority population than the MSA. These blocks are concentrated around Ashland as well as the larger Greenup, Wurtland, Flatwoods, Raceland area.

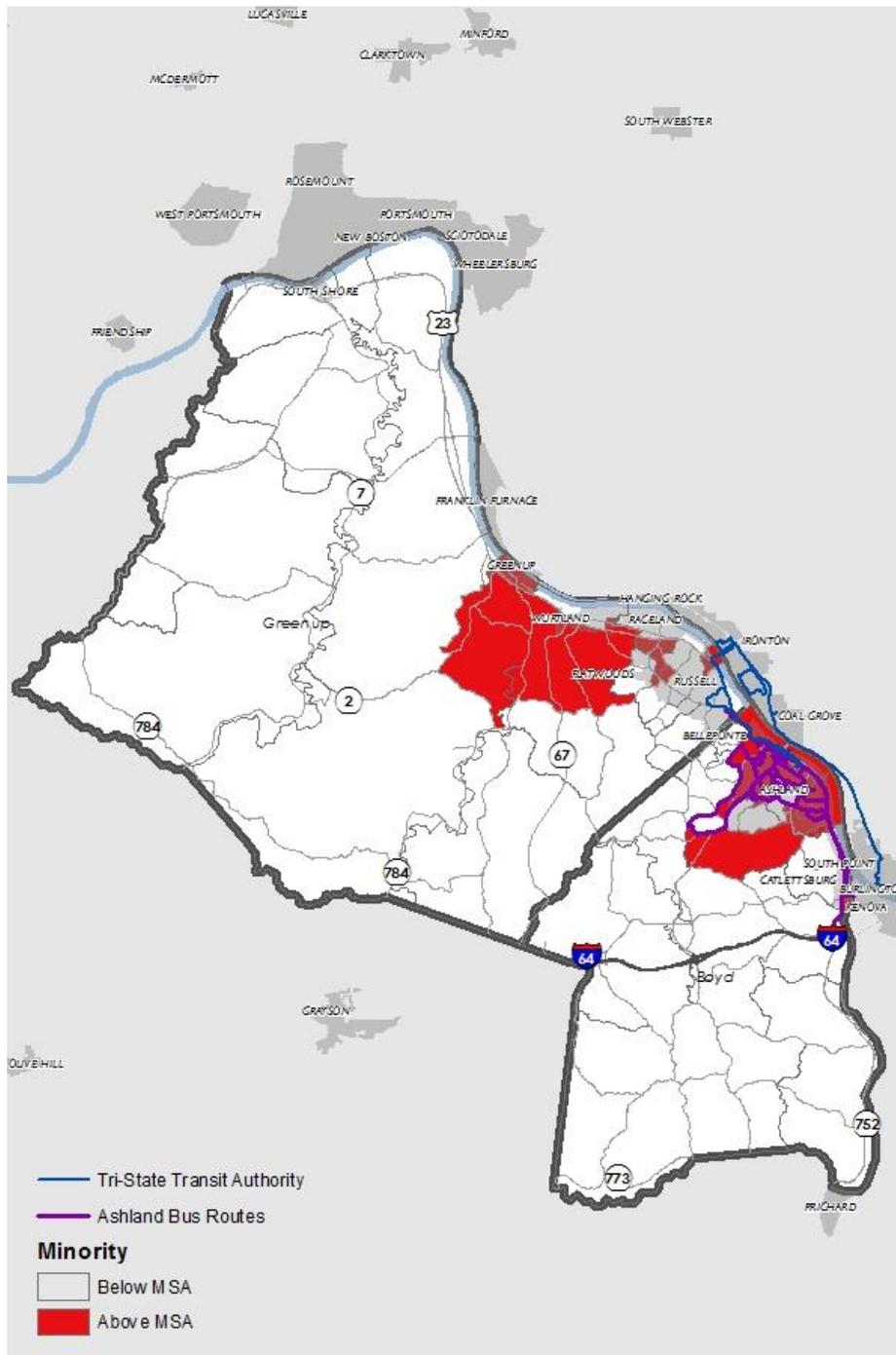


Figure 17: Minority Population Concentrations in Boyd and Greenup Counties

RECOMMENDATIONS

Public transit does not exist separately from other transportation modes and land uses. Consistent public transportation options are necessary to accommodate those who are mobility-impaired and those who can already move about freely, offering a real travel choice to everyone. The primary goal for this transit study is to balance policy recommendations, service priorities, and conceptual routes that can really begin to offer Boyd and Greenup County residents viable transportation options.

STAKEHOLDER ENGAGEMENT

Beyond the data that was collected and analyzed for the gap analyses, local stakeholders were engaged to help to ground the analysis and to understand any local issues and concerns they had heard from constituents. The following agencies and organizations attended the Stakeholder Meeting held on January 30, 2017:

- Northeast Kentucky Community Action Agency
- FIVCO Area Development District
- Lawrence County Transit
- Ashland Bus System
- Russell Independent School District
- City of Catlettsburg
- City of Flatwoods
- City of Raceland
- Greenup County

During the meeting, stakeholders were asked to think about gaps in the existing system, both geographically and service-related. The stakeholders began to draw on maps to indicate areas where gaps existed and possible coordination opportunities between the transit providers. Areas in Boyd and Greenup Counties that were identified as clear gaps in the system included:

- Wurtland
- Raceland
- Flatwoods
- Worthington
- Greenup
- South Shore

Stakeholders also identified major destinations and coordination opportunities for the system to strive to accommodate in future plans:

- Downtown Greenup (future transfer station)
- Kyova Mall

POLICY RECOMMENDATIONS

In order to better serve the Boyd and Greenup County areas, a combination of policy recommendations and service recommendations were developed as part of this study. These recommendations are discussed in more detail in the following sections.

PRODUCTIVITY VS. COVERAGE

Like transit providers across the United States, providers in the KYOVA area struggle with productivity versus coverage. Focusing transit routes on coverage usually means the service must stretch over a greater geography to more places where people need transportation options. Routes focused on productivity serve stops with activity density in a mixture of land uses. These routes typically run frequently throughout the day and most likely provide a competent alternative to driving from a time perspective.

Observation: Transit routes in Boyd and Greenup Counties are fairly circuitous and/or sometimes offer one-way travel options but do not operate the same route back.

Recommendation: Create policy measures that allocate resources for each route type that focuses on the diversification of services by looking at frequency of service. (This may change based on the service provider and each provider’s mission to provide services.) Particularly for Boyd and Greenup Counties, which are a bit more rural in nature, it will be important to look at which routes warrant an increase in frequency vs which routes require a continuation of prioritizing coverage. Identify routes that will focus on increasing frequency and time span by looking at land use density, proximity, and available destinations. Identify other routes that will allow for more deviations from the “straightest path” but connect more communities and people. It will become crucial to take closer look at ridership numbers, types of riders, and hour of day travel patterns in order to manage competing interests.

SERVICE & RESOURCE COORDINATION

The larger KYOVA area has three fixed route services and various other human service transportation agencies serving the population. Due to the recent establishment of a Transportation Management Area (TMA) for the Huntington-Ashland-Ironton, WV-KY-OH urbanized area (See following map for the geospatial designation: Urbanized Areas in Boyd and Greenup Counties), the continued need for a coordinated system between these entities has risen as a high priority recommendation. According to the Federal Highway Administration (FHWA), an area designated as a TMA incurs additional requirements than smaller urbanized areas:

- Transportation plans and programs based on a continuing, comprehensive, and cooperative process carried by the MPO, State, and Transit Operators
- Congestion Management Process (CMP) is required
- FHWA and Federal Transit Administration (FTA) must certify the planning process every 4 years

Observation: Certain populations in the KYOVA region are potentially unserved due to coordination needs from transit providers. This includes the inability to provide service due to much needed funding clarifications and agency jurisdictional questions. It’s important to note here that the majority of routes that TTA and ABS operate are within the urbanized area.

Recommendation: In the case of resource coordination from the transportation providers in Boyd and Greenup Counties, one FTA formula fund comes to mind: 5311. 5311 funds are Formula Grants for Rural Areas that provides capital, planning, and operating assistance to support public transportation in rural areas with populations less than 50,000. Services that provide transportation to and from the urbanized area (TMA) are also eligible but the pick-up and drop-off location cannot both be in the urbanized area. Service types can include bus, shared-ride taxi, or other publicly/privately owned transportation operations that serve the general public on a regular basis in nonurbanized areas. It will be vital moving forward for the MPO (or a 5311 designated recipient) to coordinate with all agencies eligible for providing 5311 transportation as well as providing education and funding assistance opportunities for staff.

In the case of service coordination, it is recommended that the agencies consider getting under one transit trip database to create a coordinated transportation network (e.g., RouteMatch, Trapeze) This means that the trips that are scheduled from each organization live in one database; every other agency can see which trips have been scheduled by what client. Not only does this help to avoid potential duplications of trips and services, this allows for a holistic view on potential gaps in the system. With an increasing demand for public transportation services, it will be valuable moving forward for FTA’s designated recipient to better manage formula funds. This may be one of the many ways that the designated recipients can better maintain which trips fall under each formula fund all while maintaining better coordination.

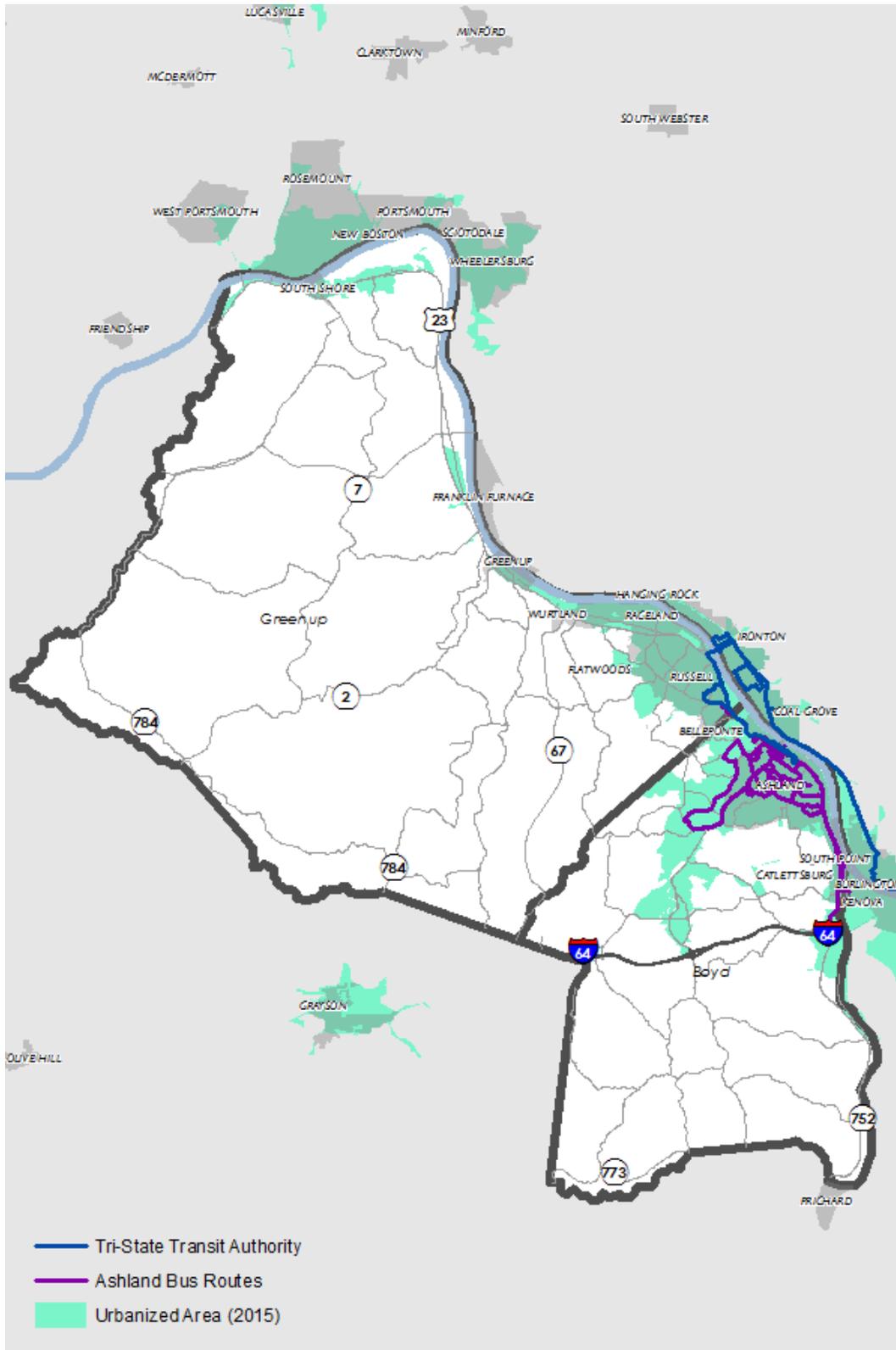


Figure 18: Urbanized Areas in Boyd and Greenup County

SERVICE RECOMMENDATIONS

FREQUENCY

Frequency is one of the most important factors in determining transit service quality. The more frequent a route operates, the less a rider is required to rely on a schedule and plan his/her trip. Greater frequency also creates a more attractive transit network, as riders do not have to wait as long to transfer between different routes. As a result, more frequent routes capture demand from both choice riders and transit-dependent riders, while less frequent routes are utilized primarily by people who are transit dependent.

Frequency is also one of the most challenging tradeoffs when planning transit service. The more resources that are spent on one route for increased frequency, the fewer resources there are to operate service in other locations. Therefore, higher frequency is associated with areas of higher ridership, while low frequency is associated with areas of lower ridership. Similarly, higher frequency routes are compatible with areas of high transit potential, meaning areas that would produce relatively higher ridership. These areas are often characterized by greater population and employment density, people with lower incomes, minorities, seniors, and zero-vehicle households. Places with high transit potential but low service frequency may indicate a service quality gap.

Observation: In order to identify potential service quality gaps caused by frequency, it is important to understand the transit service frequency provided in Boyd and Greenup Counties. The following are the routes operating in Boyd and Greenup Counties and their associated frequencies:

- Route 14: Two trips each peak period
- 13th Street: 60 minutes
- 29th Street: 120 minutes
- Catlettsburg: 60 minutes
- Crosstown: 120 minutes
- Downtown: 60 minutes

Recommendation: Ashland has either high or very high transit potential, as shown in Figure 6. The 13th Street route provides 60-minute service to the west side of Ashland, and the Catlettsburg and Downtown routes provide 60-minute service on US 23. The areas of Ashland with high transit potential in the center of the city and on the east side of town are served by 120-minute service. This level of service does not support an area with high transit potential.

The other gap highlighted is the connection between the northwest corner of Ashland and the southeast corner of Russell. These areas were calculated to have high or very high transit potential; however, there are only two trips connecting them each peak period. As additional funding is available, frequency improvements are recommended on Route 14, the 29th Street route, and the Crosstown route to better align service with transit potential.

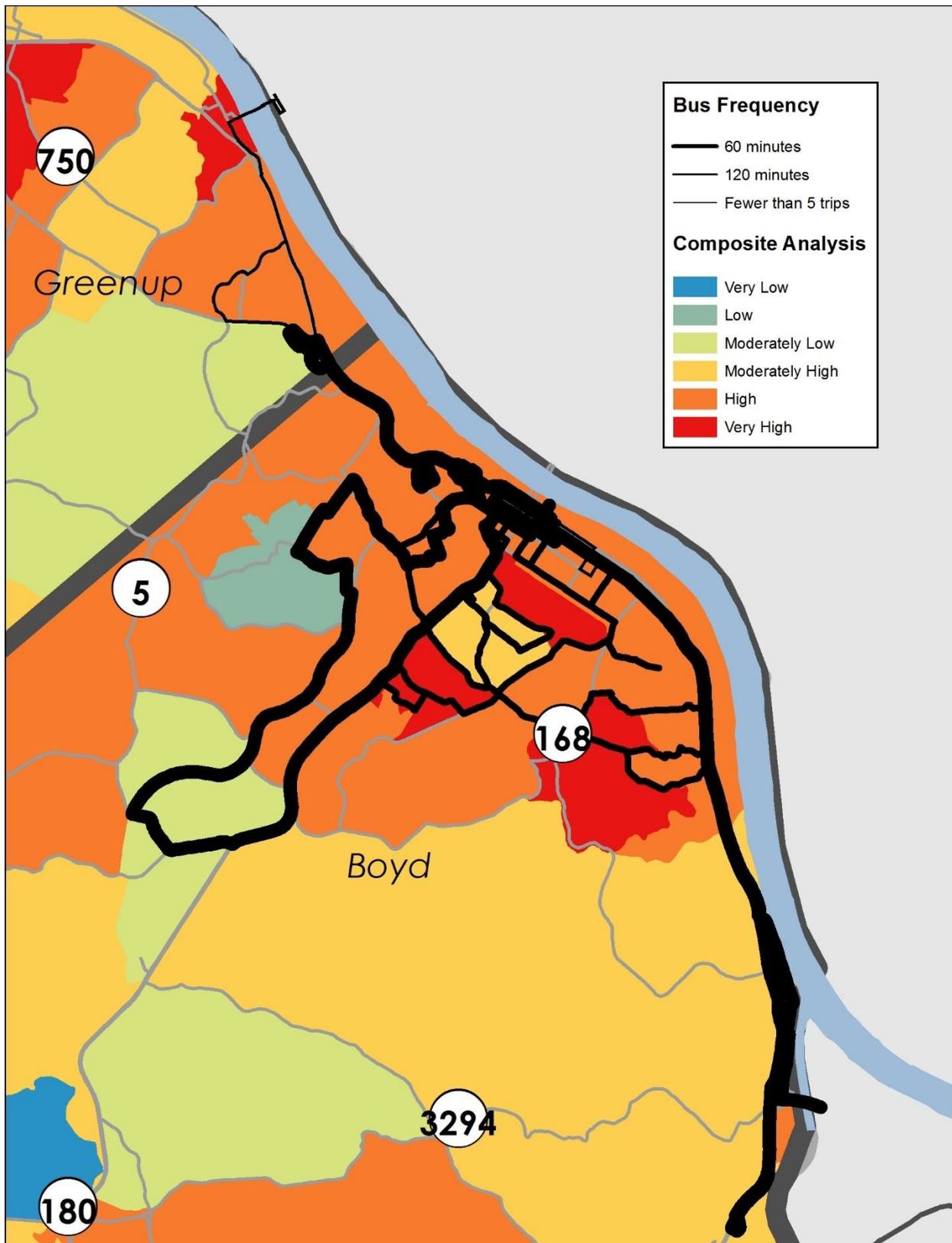


Figure 19: Service Gap Analysis of Frequency

SPAN

Transit service span is the length of time for which a route operates. Span affects service quality, because it determines the times in which those utilizing transit can travel. While transit routes may connect places that people travel between, if the service does not operate early or late enough it may not be a viable travel option. Therefore, consideration should be given to the types of destinations along a route.

Routes with higher ridership tend to have a longer span of service, while routes with less ridership tend to have a shorter span of service. Additionally, routes that are aimed at commuter services tend to only provide service during the morning and afternoon peak periods.

Observation: In order to identify potential service quality gaps caused by span, it is important to understand the span of transit currently provided in Boyd and Greenup Counties. The following are the routes operating in Boyd and Greenup Counties and their associated spans:

- Route 14: 4 hours total, 2 hours each peak period (6:45-8:45am; 4:15-6:15pm)
- 13th Street: 11 hours (7am-6pm)
- 29th Street: 10 hours (8am-6pm)
- Catlettsburg: 11 hours (7am-6pm)
- Crosstown: 11 hours (7am-6pm)
- Downtown: 9 hours (9am-6pm)

Recommendation: Most of the routes within Ashland have similar spans of service, as shown in Figure 7. All routes within Ashland end service around 6pm. The 13th Street route, the Catlettsburg route, and the Crosstown route begin operations at 7am, while the 29th street route starts at 8am, and the Downtown route starts at 9am.

Route 14 between the northwest corner of Ashland and the southeast corner of Russell has a shorter span of service due to its peak-only operations. While this route currently operates as a commuter service, the transit potential of the service area suggests that it may be able to support a greater span of service. As additional funding is available, explore expanding the span of Route 14 to all day service or adding a couple midday trips.

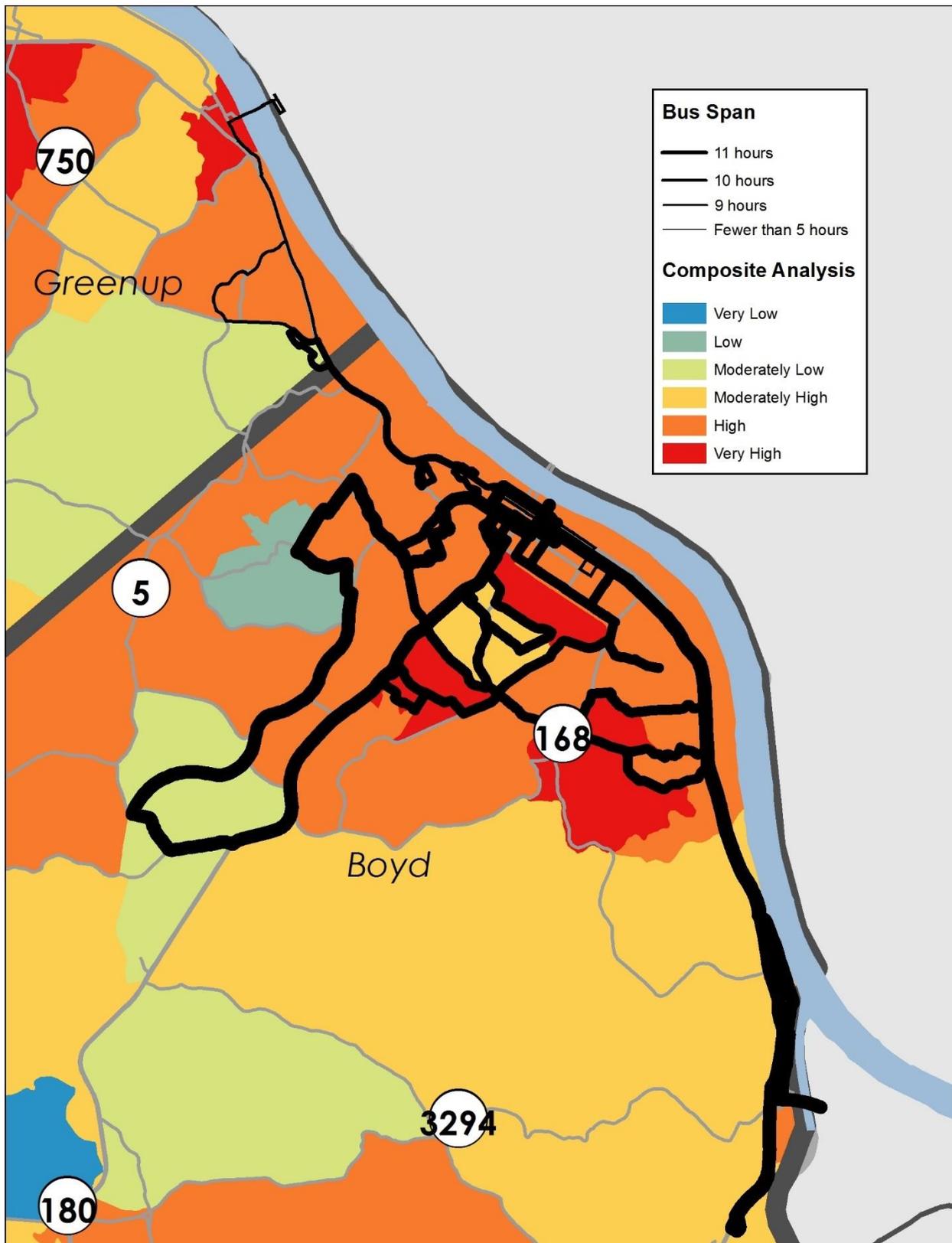


Figure 20: Service Gap Analysis of Span

RELIABILITY

Service reliability relates to the arrival of a bus at a stop compared to the time it is scheduled to be at the stop. While some deviation from the schedule is inevitable due to weather, traffic, and passenger needs, unreliable transit service is a service gap. Riders must have confidence that the service will arrive when scheduled to be able to use transit confidently as a transportation option.

Observation: The route schedules for transit service in Boyd and Greenup Counties emphasize that the service times are approximate.

Recommendation: Performing ride checks on the bus routes within Boyd and Greenup Counties would provide an indication of the routes that have service reliability gaps. If service reliability gaps are identified on any of the routes, making adjustments to the routing of the service or the schedule would address this gap.

ROUTING

EXISTING ROUTES

The routing of transit service has a large impact on people's ability to access their destinations as well as to understand the transit system. Directness is another tradeoff within transit systems. While direct routes are more efficient and easier to understand, customers also demand service near to key destinations. In addition to the tradeoff between directness and nearness, the street network also affects transit routing. It is challenging to provide direct service if the street in an area are circuitous and curvilinear rather than in a grid pattern.

Observation: As discussed in the policy recommendations section, several of the routes within Boyd and Greenup Counties are fairly circuitous. This makes it challenging for anyone who is less familiar with the system to feel comfortable riding it, since it is not clear where the route travels. The routes in Boyd and Greenup Counties also operate in one way loops. This service makes it challenging for those that are traveling a shorter distance in the opposite direction to that of the route.

Recommendation: As resources are available, restructure routes to be more direct and minimize deviations. The 29th Street route, while providing coverage to many areas, is the most circuitous and would benefit from restructuring. If loop route structures cannot be avoided, add bi-directional service so that customers can reach their destinations more efficiently.

NEW ROUTES

Based on transit demand and public input, the expansion of transit service by capturing a larger geography should be contemplated. Making sure that transit expansion is servicing those who need transportation services is of utmost importance.

Observation: There are areas within the two counties that have high demand potential for transit riders. Looking at these areas concurrently with the need expressed during the stakeholder engagement allows for a confirmation of areas that should be included in recommendations for new routes.

Recommendation: The recommendations for new routes for Boyd and Greenup Counties include short-term, mid-term, and long-term services to consider moving forward. The recommendations do not include specific details on what agency should provide which route. Rather, the new route recommendations present future expansion potential where the best return on investment most

likely lies. See following map for the recommendation locations: Transit Recommendations for Boyd and Greenup Counties.

In the short-term, it is recommended that an extension of services be provided to the Raceland, Flatwoods, and Russell area. The route that should be explored includes leveraging US 23, Bellefont Road, and Raceland Avenue.

In the mid-term, there should be consideration of a service that runs from South Shore, connecting through Greenup and Ashland. The demand for service in South Shore is not only evident in the spatial gap analysis, it was also brought up by the local stakeholders as a needed service.

The long-term connections needed include North-South connections along: KY 5, KY 67, and KY 1. The larger area that these North-South routes represent have been identified as areas of having high transit demand potential.

Most importantly, it will be vital for the agencies to continue to reinforce regional connections from Boyd and Greenup Counties to the rest of the region. The first regional connection is where TTA services connect over the river. The second regional connection at the City of Greenup does not currently exist but is recommended for further exploration of coordination opportunities. Similar to the City of Greenup regional connection, South Shore should be considered as a connection to the Portsmouth area.

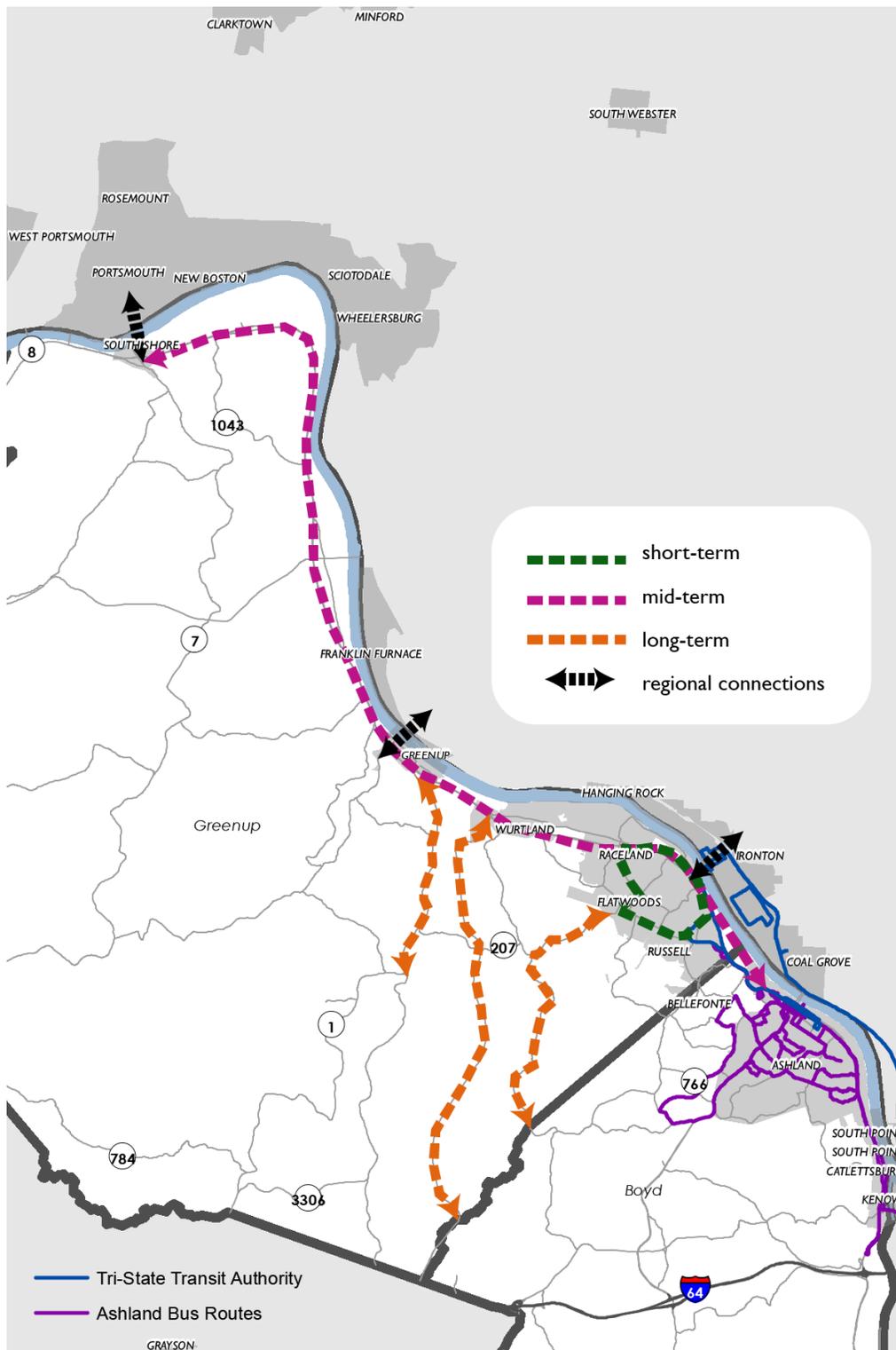


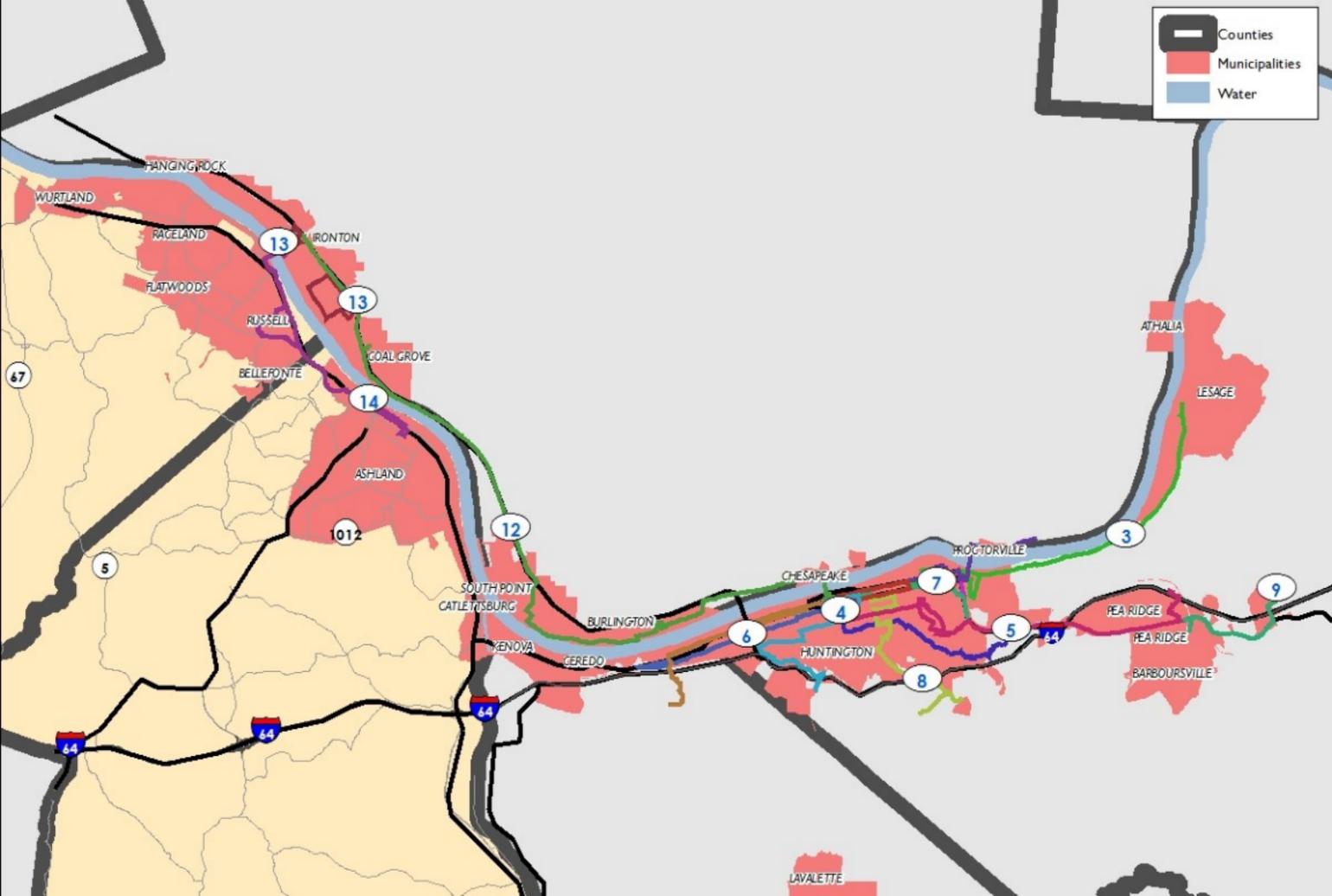
Figure 21: Transit Recommendations for Boyd and

CONCLUSION

The Boyd and Greenup County Transit Study offers a better understanding of where existing transit services in the two-county region can be improved as well as where regional connections and coordination opportunities exist. The overarching goal should continue to be to create a coordinated transportation network that is easily accessible by those who need services. Making sure to understand where current transit service exists and where potential future opportunities for transit expansion exist will ensure a cohesive experience for transit users and the agencies that service them. The recommendations included in this study are high-level and it is expected that more in-depth studies be conducted prior to implementing any new routes or restructuring existing routes.

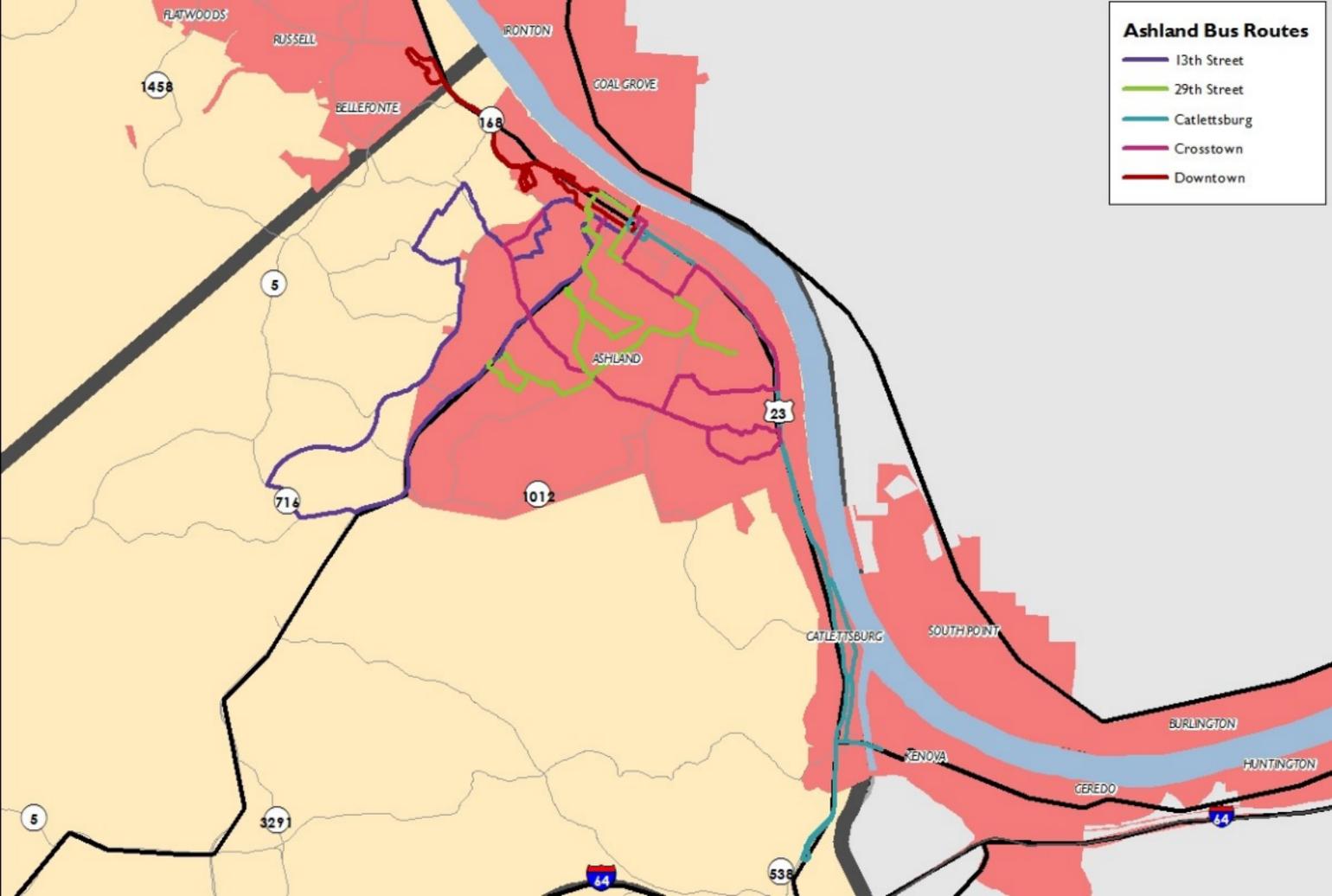
The Boyd and Greenup County Transit Study's recommendations are ultimately meant for consideration in the region's Metropolitan Transportation Plan and as a communication tool between member agencies and jurisdictions. Implementation of said recommendations will be dependent on identification of available funding, federal and state, and partnership with local, state, and federal agencies.

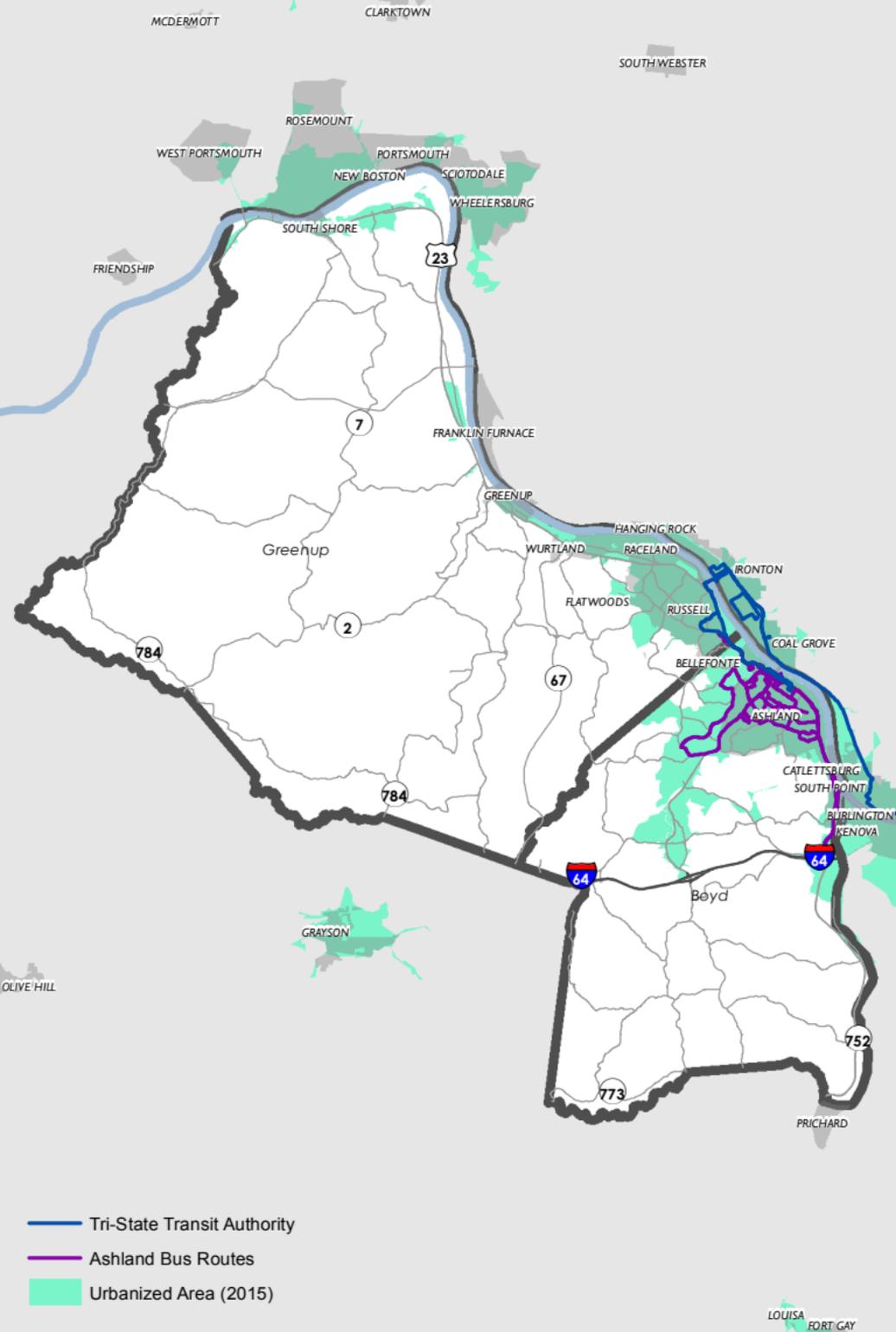
	Counties
	Municipalities
	Water



Ashland Bus Routes

- 13th Street
- 29th Street
- Catlettsburg
- Crosstown
- Downtown

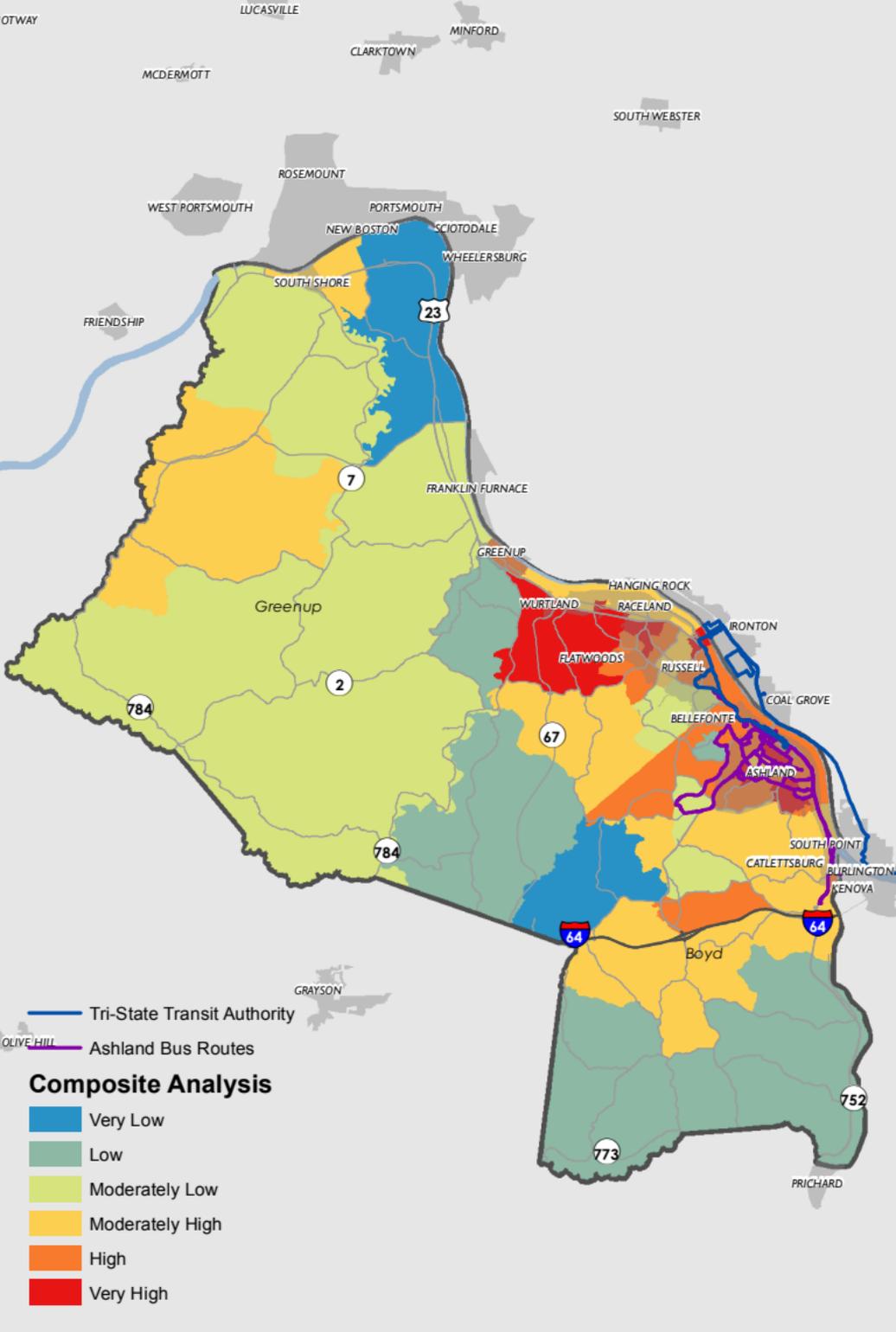


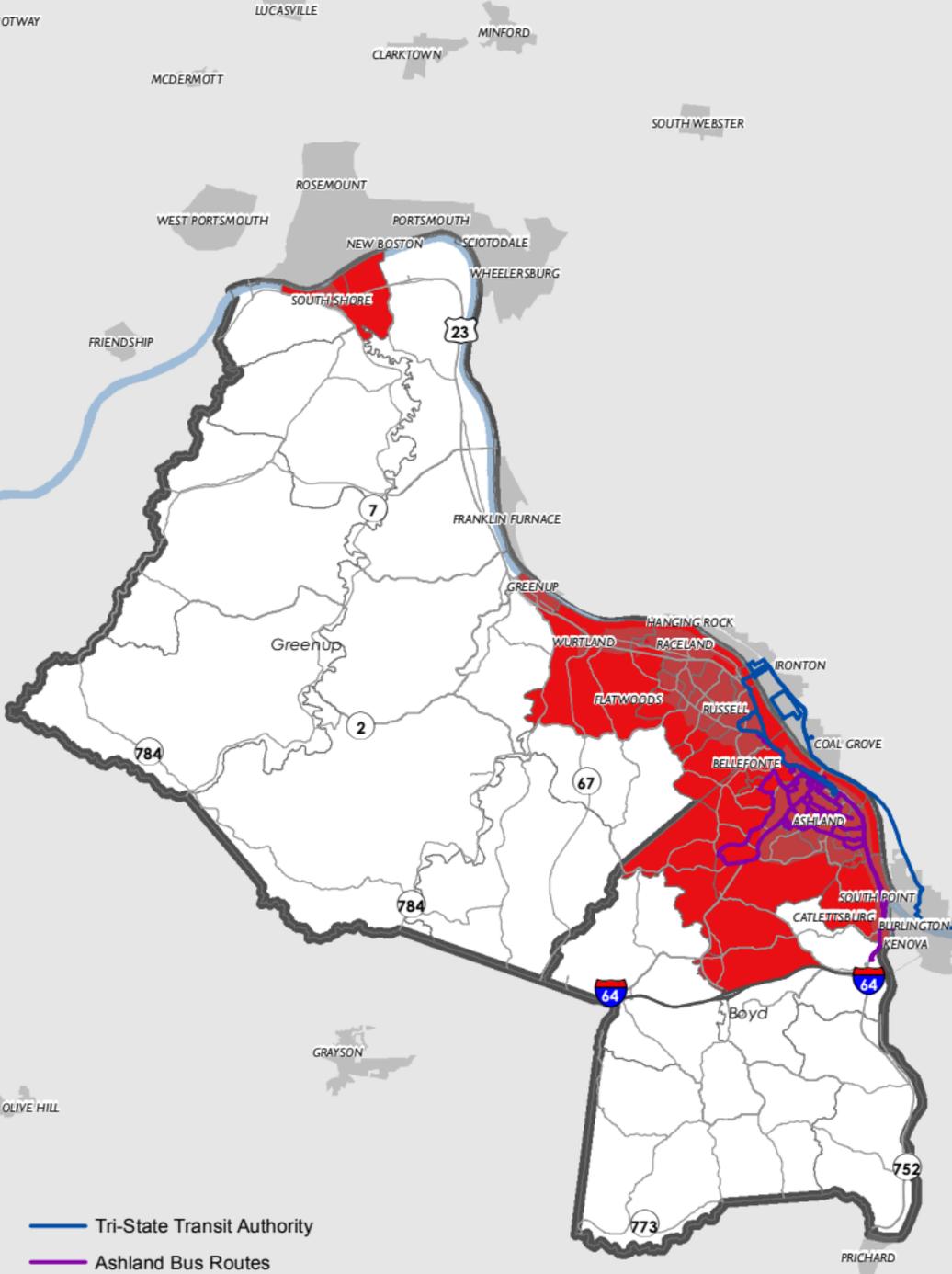


— Tri-State Transit Authority

— Ashland Bus Routes

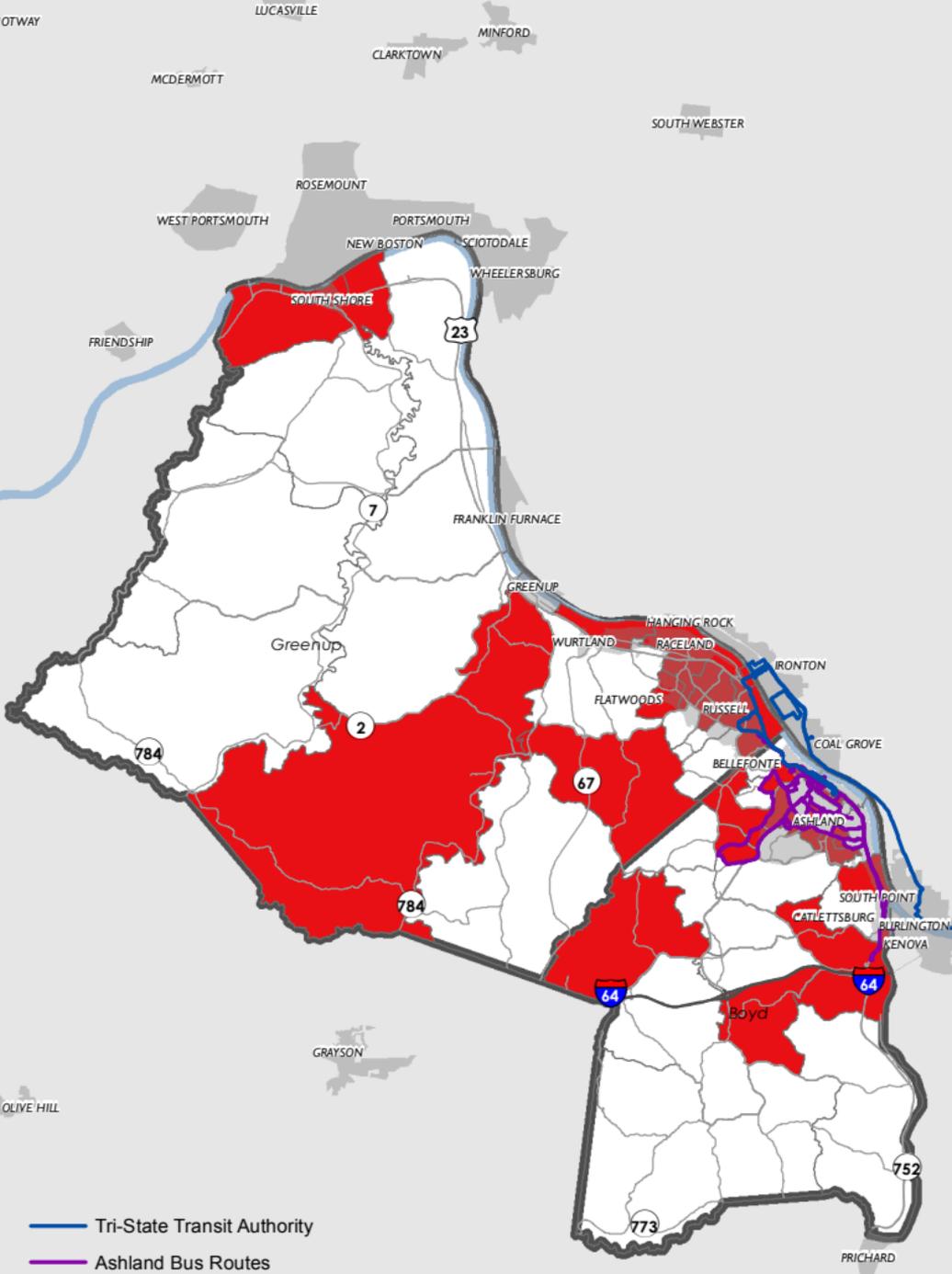
■ Urbanized Area (2015)





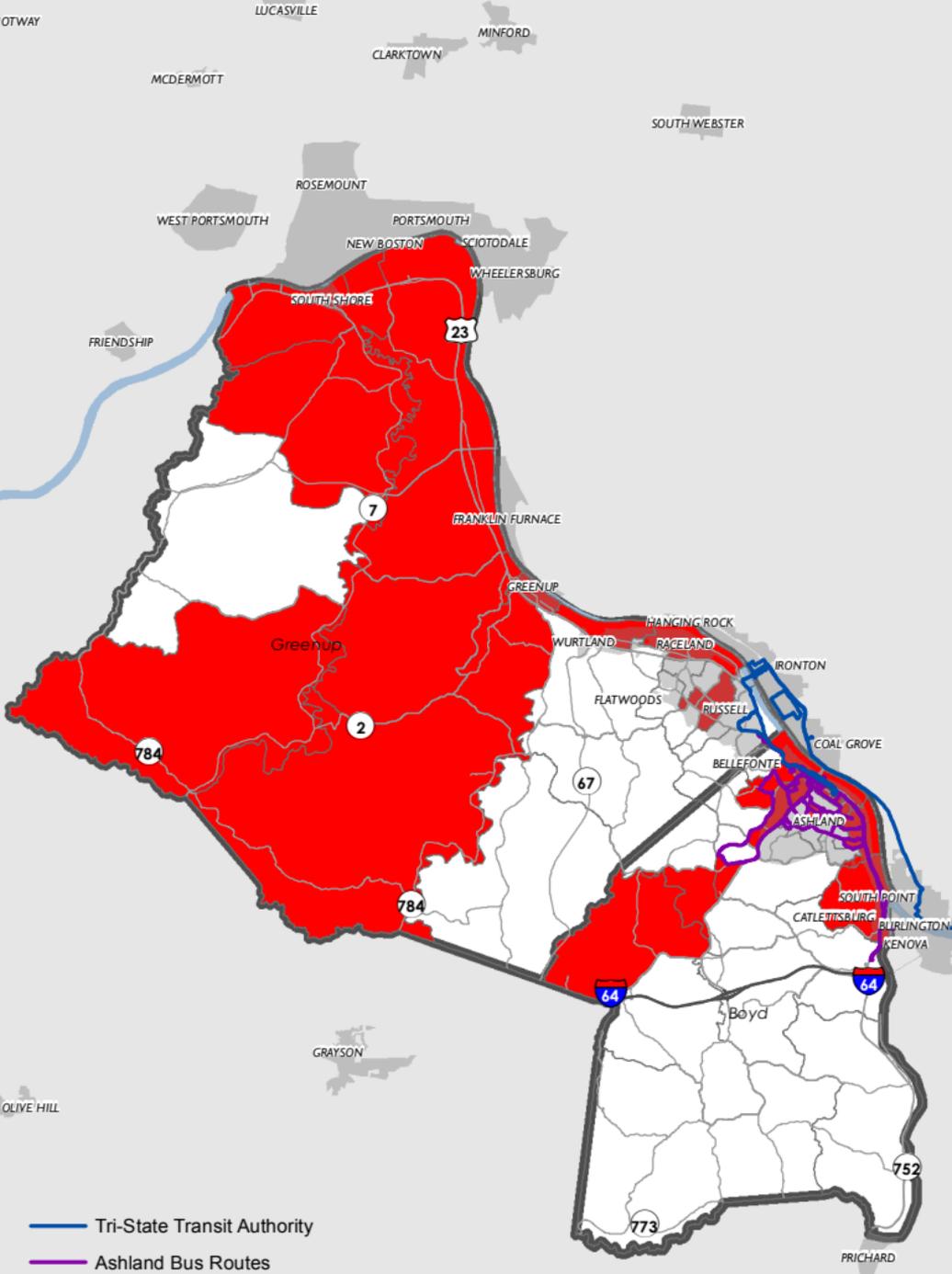
Population Density

- Below MSA
- Above MSA



— Tri-State Transit Authority
 — Ashland Bus Routes

Age (65+)
 □ Below MSA
 ■ Above MSA



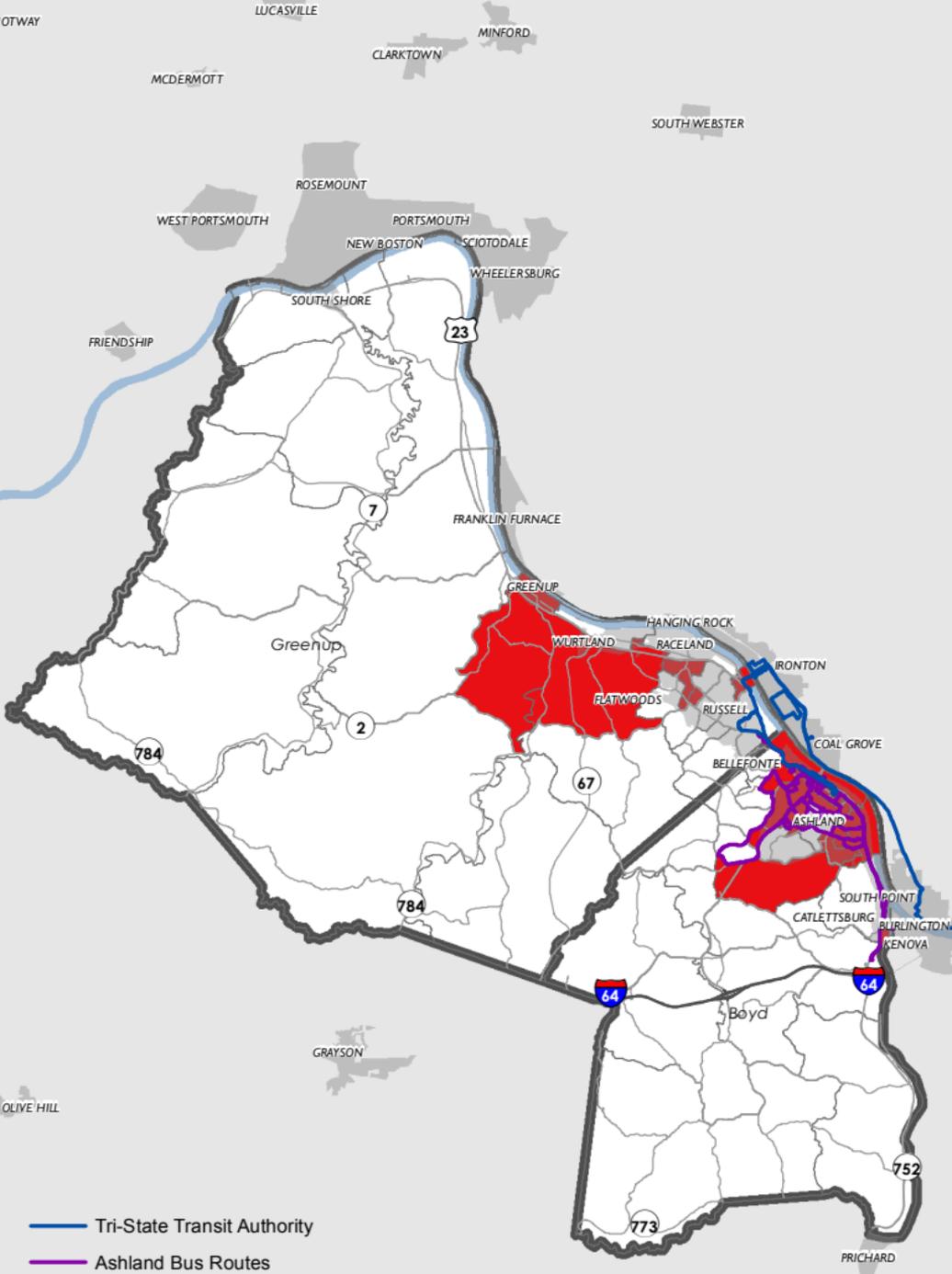
— Tri-State Transit Authority

— Ashland Bus Routes

Income

■ Below MSA

□ Above MSA



Minority

- Below MSA
- Above MSA

