

UDALE/SOLOMON



# Market Analysis

CamTran System Enhancements Study

April 2020

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## Introduction

### CamTran System Enhancements Study

CamTran is conducting a comprehensive assessment of its existing transit service and establishing a vision of what its service should look like in the coming years. In Johnstown and throughout Cambria County, CamTran plays a vital role in connecting residents to the region's housing, jobs, and major activity centers. This plan's purpose is to update CamTran's service so that it better fits the needs of its customers, as well as to make service more efficient and effective. The CamTran System Enhancements Study includes four phases:

- This document, the **Market Analysis**, which includes an assessment of the existing and potential market for transit in Cambria County and beyond.
- An **Existing Service Analysis**, which includes a comprehensive review of the existing CamTran network and an assessment of each route.
- **Service Alternatives**, which presents multiple approaches for evolving the CamTran network to better serve the residents and workers of Cambria County.
- The **Final Recommended Network**, which establishes a short-term plan for improving the CamTran network.

During each phase of the project, CamTran staff and the project team will engage with residents, existing customers, and stakeholders to ensure that the Final Recommended Network reflects the community's vision for transit in Cambria County.

### Market Analysis

Much like businesses assess markets to identify potential customers, focus their strategies, and prioritize their investments, transit agencies benefit from conducting market research to identify key market segments, demands, and gaps in service.

This market analysis is an evaluation of where transit demand is located within the City of Johnstown, as well as the greater Cambria County region. Specifically, this report describes:

- The underlying demand for transit services based on population density, job density, demographics, and other factors;
- Major transit trip generators; and
- Where people are traveling from and where they are going.

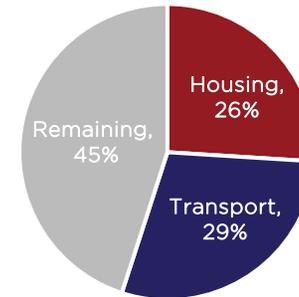
The Market Analysis is the first step in understanding the existing condition of transit in the CamTran service area. By identifying the target market segments for public transit in and around Cambria County, this analysis will help guide investment and service planning priorities for the agency.

## Why is Transit Important?

Transit has the promise of being a safe, affordable, and convenient travel option for people of all ages and abilities. Transit is the most affordable mode for travel in Cambria County: a monthly pass for unlimited CamTran rides costs \$60 for adults, \$35 for students, and is free for seniors (sponsored by the PA Lottery Program). These prices lead to annual transportation costs of \$720, \$420, and \$0 for each group, respectively. By contrast, automobile ownership and gas cost Cambria County residents an average of \$12,300 per year (CNT Housing & Transportation Index). Given that Cambria County residents spend an average of 29 percent of their income on transportation, well-functioning public transit can remove a significant cost burden for many people, especially the more than 19,000 Cambria County residents living below the poverty line (US Census). When a region invests in quality transit, it can allow for greater upward mobility for its residents, as lessening the burden of transportation costs can allow for those resources to be spent on other needs, such as education, health care, savings, or the purchases of goods and investments.

 **\$12,299**

**Figure 1 | For the typical worker in Cambria County, the annual cost of transportation (including fuelling and maintenance of an automobile) is more than \$12,000 per year (CNT Housing & Transportation Index).**



**Figure 2 | Housing and transportation costs as a proportion of income for the average Cambria County resident. In dispersed areas, people need to own more vehicles and rely upon driving them farther distances, which also drives up the cost of living (CNT Housing & Transportation Index).**

Additionally, transit is the most efficient method of transporting people in environments where street space is limited. Transit vehicles such as buses can carry many more people down a street while using a fraction of the space that would be required to move those same people in cars.

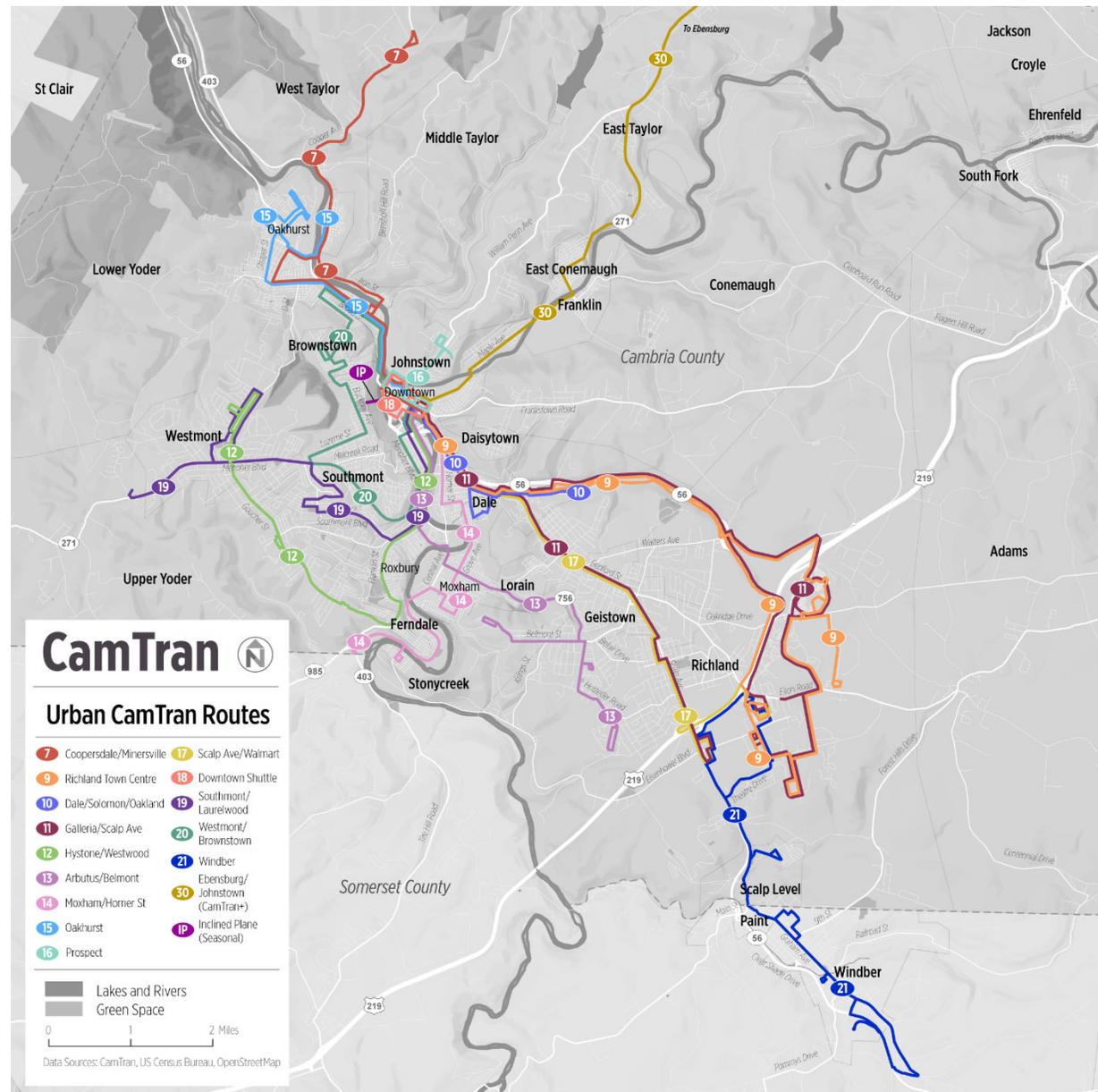
The benefits of transit extend beyond alleviating congestion – transit is both safer and more environmentally-friendly compared to traveling in a private car. According to the Centers for Disease Control and Prevention (CDC), communities with higher transit use experience fewer traffic-related deaths per capita, and transit use reduces per-capita greenhouse gas emissions and pollution (source: CDC “Transportation Recommendations” <https://www.cdc.gov/transportation/recommendation.htm>).

## Service Area

CamTran provides transit service throughout Cambria County with five distinct business lines:

- Urban fixed-route bus (marketed as “CamTran”)
- Rural fixed-route bus (“CamTran+”)
- Shared-ride (“Reserve-A-Ride”)
- Paratransit services (“Persons with Disabilities” and the “Complementary ADA Paratransit Program”); and
- The Johnstown Inlined Plane.

Johnstown’s service area comprises the entirety of Cambria County, an area of about 694 square miles with an estimated 131,730 people and 64,000 jobs. CamTran service also extends into Somerset County to serve Windber. Reserve-A-Ride and Persons with Disabilities services are available in both Cambria and Blair Counties as well as approximately 25 miles into the northern portion of Somerset County and the northwest tier of Bedford County.

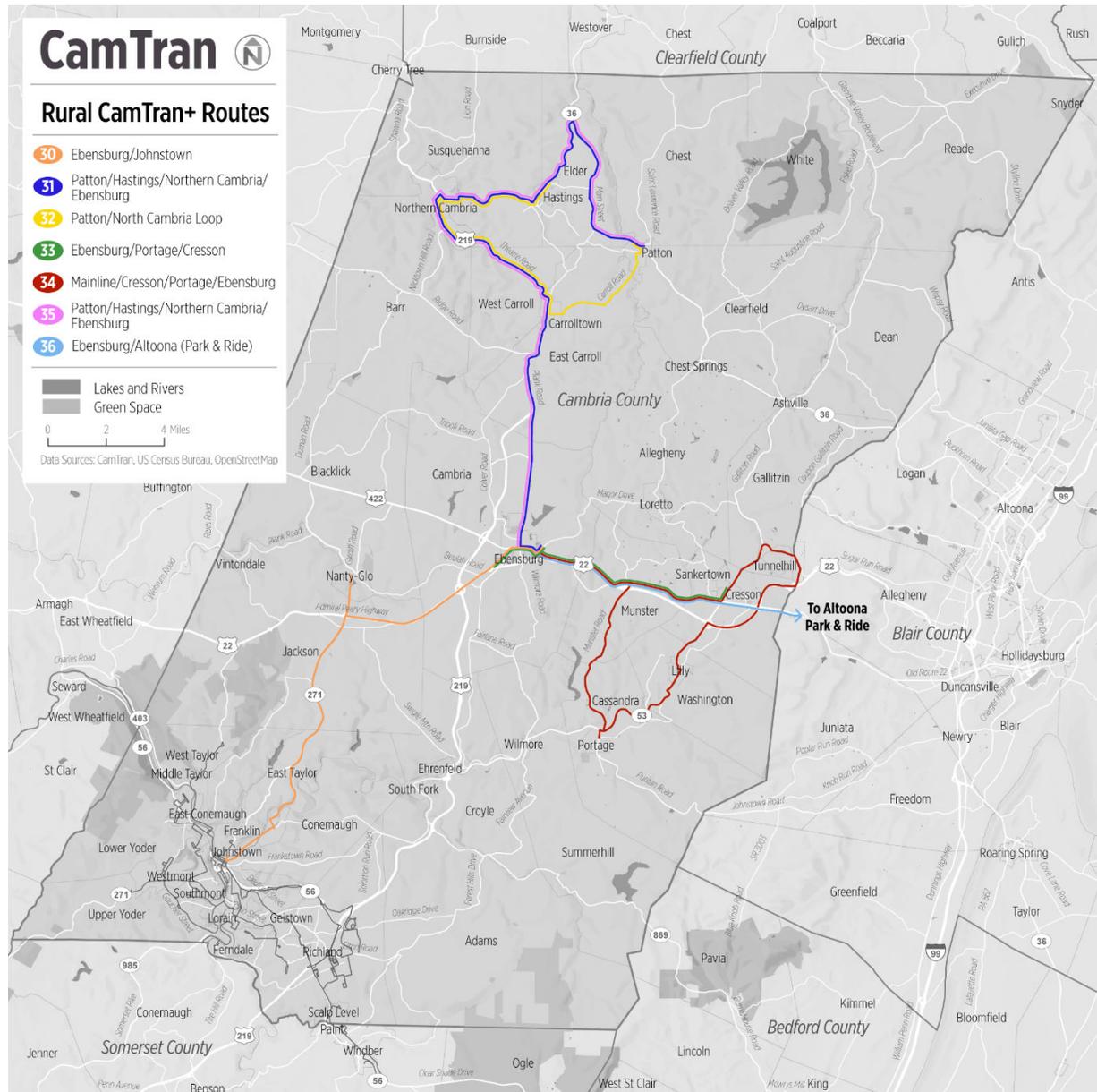


The Inclined Plane is one of the few remaining inclined planes in the United States still in operation for public transportation; it connects Downtown Johnstown with the higher grounds of Westmont Borough to the west.

 **694 square miles**

 **131,730 people**

 **64,000 jobs**



## Overview of Transit Demand

### Transit Demand Factors

Transit ridership is a function of the underlying demand for transit services and attractiveness of the service that is provided. The underlying demand for transit is driven by **five key factors**:



**Population and Population Density:** Since transit relies on having people in close proximity to service, higher population density makes it feasible to provide higher levels of service.



**Jobs and Job Density:** The location and density of jobs is also a strong indicator of transit demand, as traveling to and from work often accounts for the most frequent type of transit trip.



**Socioeconomic Characteristics:** Because of various socioeconomic characteristics, some people are more likely to use transit. For example, households with low incomes are much more likely to use transit.



**Major Activity Centers:** Large employers, universities, and other high-activity areas attract large volumes of people and can generate a large number of transit trips.



**Travel Flows:** Travel flows illustrate the locations where people travel to and from on a daily basis. They provide insight into what places should be connected.

## Density and Transit Demand

More than any other factor, population density and employment density are the primary drivers of transit demand and, as such, provide strong indications of underlying transit demand. This is because:

- The reach of transit is generally limited to within one-quarter to one-half mile of a transit route, depending on walking conditions and topography. As a result, the size of the travel market is directly related to the density of development in that area.
- Transit service frequencies, in turn, are closely related to market size. Bigger markets support more frequent service, while smaller markets can only support less frequent service.
- To attract travelers who have other options, such as automobiles, transit must be relatively frequent — at least every 30 minutes.

**Places with large numbers of people, jobs, and other activities produce the greatest demands for transit service.**

As a result, population density (residents per acre) and employment density (jobs per acre) provide an indicator of just how much underlying demand there is for transit in a particular area. Higher population and job densities can support higher levels of transit service.

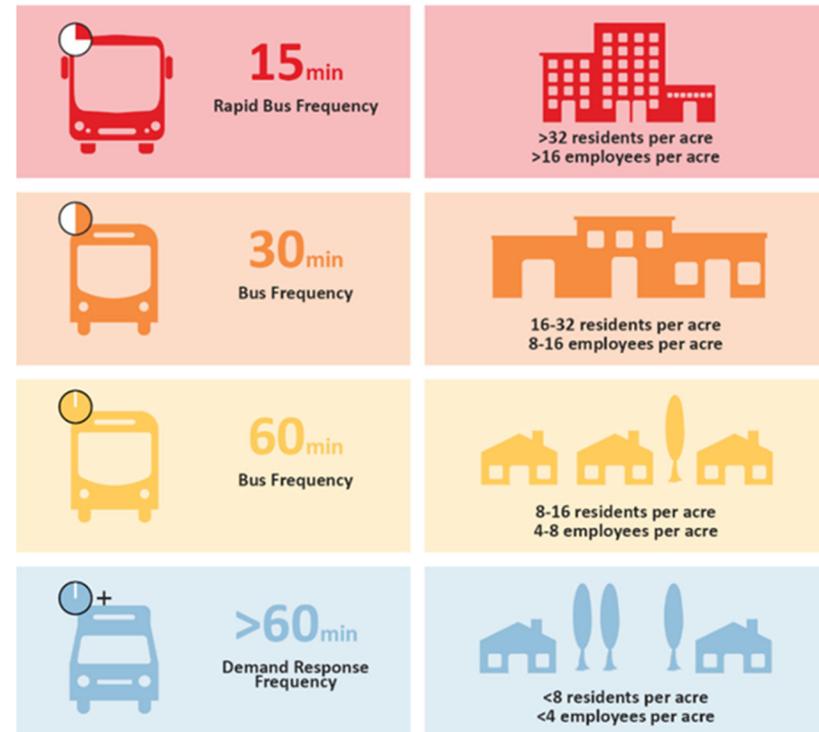


Figure 3 | Typical Density and Transit Frequency

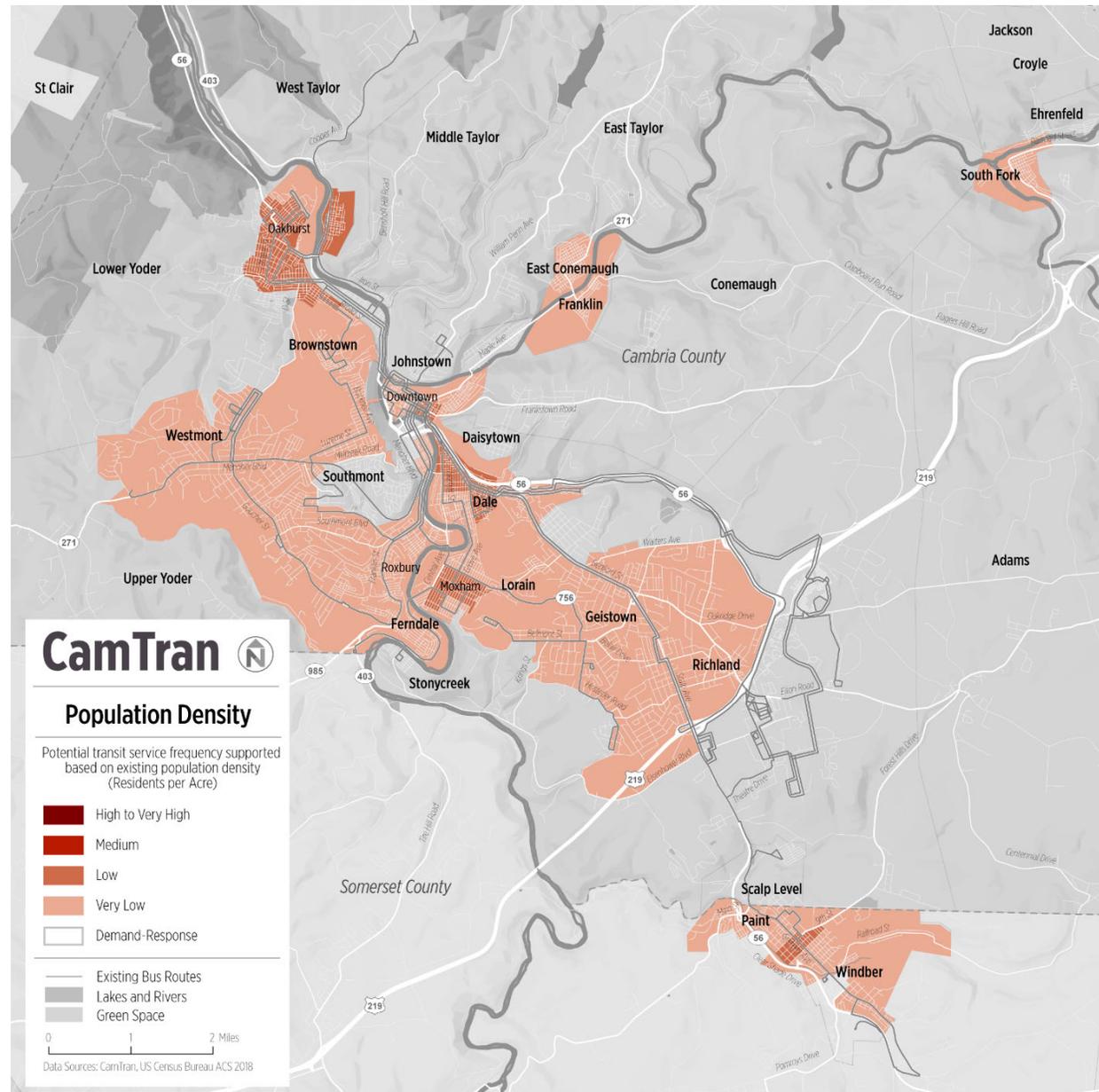
## Population and Population Density

Population density is one of the two strongest indicators of where demand for transit is the highest. There are approximately 132,000 people living in CamTran's service area. Johnstown is the largest city by population and has the greatest density in the service area. There is also relatively high population density in Windber, Ebensburg, and Northern Cambria. Within the Johnstown area, the following areas have the highest population density:

- Downtown Johnstown
- Oakhurst and Coopersdale
- Hornerstown and Dale
- Moxham
- Windber

In the following areas, population density is relatively lower but can still support fixed-route transit based on population density alone:

- Westmont and Southmont
- Ferndale
- Stonycreek and Geistown



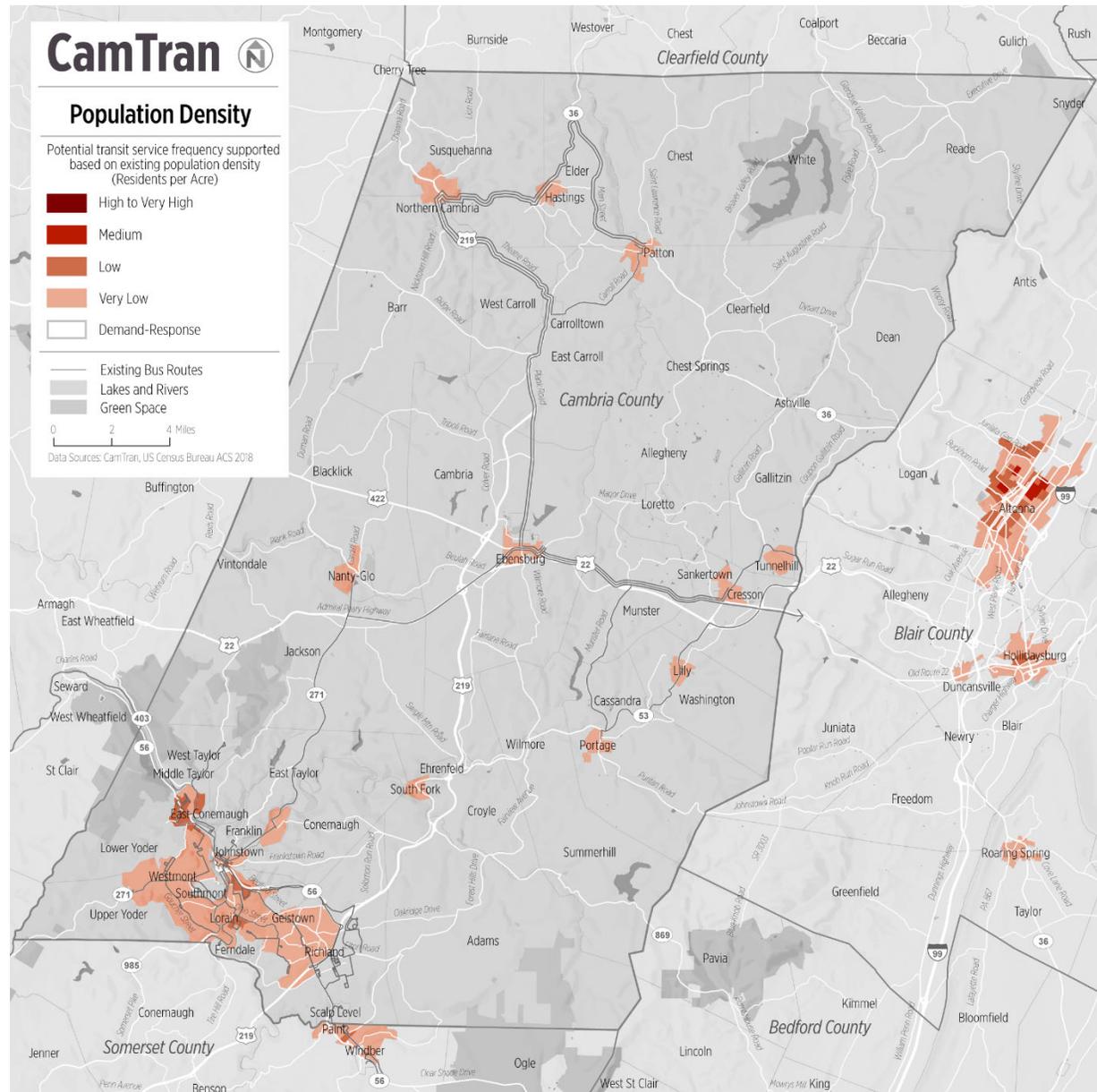
- East Conemaugh and Franklin

In the vicinity of Johnstown, all of the areas with at least low population density are served by CamTran or CamTran+ service, however most are served with lower frequency service than they may be able to support based on their population density.

Beyond Johnstown and in northern Cambria County, there are several communities whose population density can potentially support infrequent transit service. These include:

- Ebensburg
- Nanty-Glo
- South Fork
- Portage
- Lilly
- Cresson, Sankertown, and Tunnelhill
- Northern Cambria, Hastings, and Patton

Apart from South Fork, each of these communities is currently served by CamTran+.

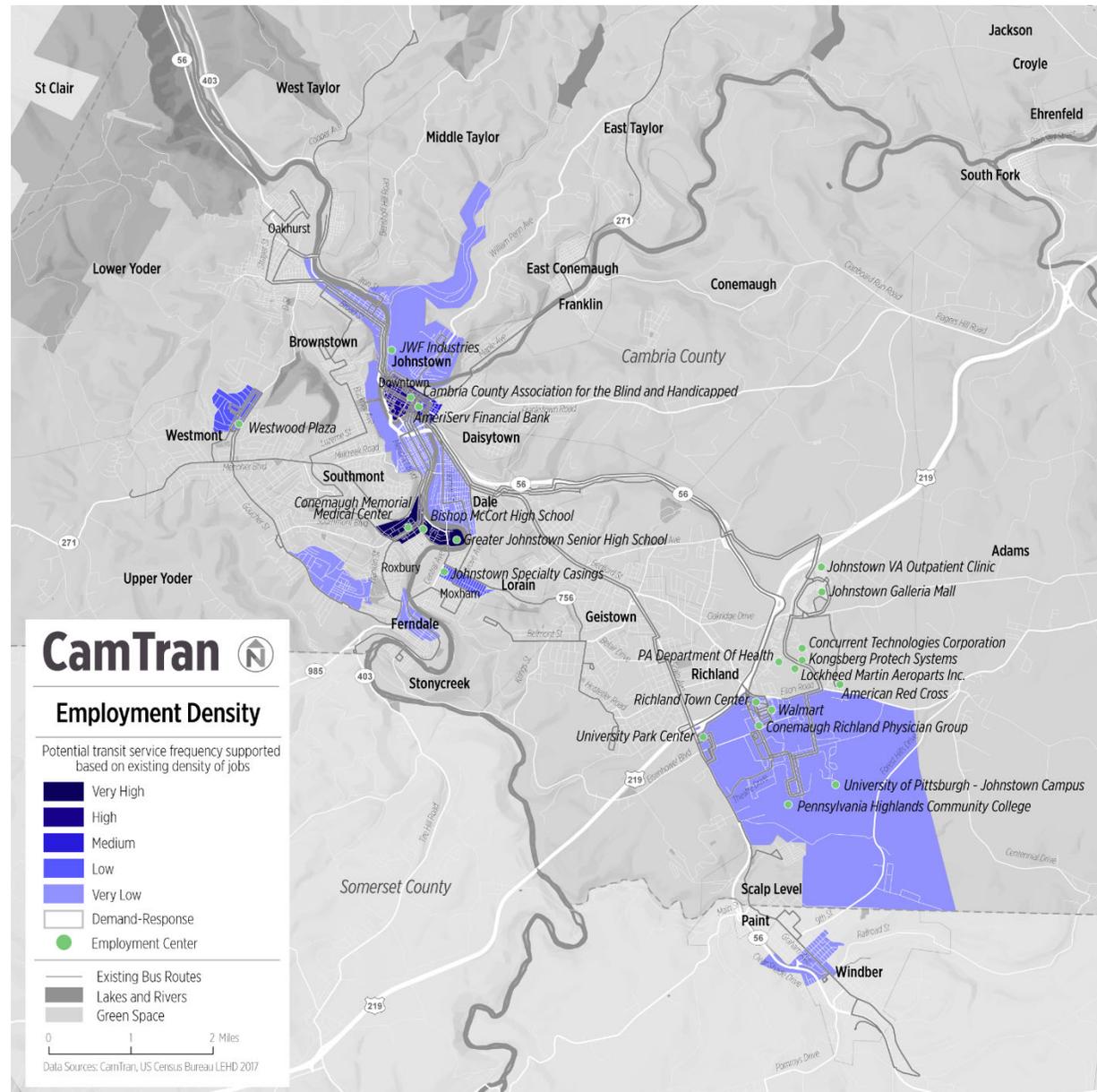


## Jobs and Job Density

In the same manner as population density, employment density provides a very strong indication of transit demand. Commuting to work is the most common and consistent reason for people to take transit. Employment density also indicates demand for travel activity unrelated to commutes. For example, where restaurant and retail employees need to travel are also where customers are traveling; the same goes for hospital employees and patients. Unlike population density, job density is more highly focused along key corridors and concentrated areas of the region.

The highest concentrations of jobs in the Johnstown area are in the following locations:

- Downtown Johnstown
- Roxbury
- Westwood Plaza area
- Moxham
- Richland Town Center
- University of Pittsburgh at Johnstown



- Near intersection of Eisenhower Blvd. and Scalp Ave.
- Ferndale and Elim

Although densely concentrated jobs are easiest to serve with transit, many of Johnstown’s largest and most important job centers are in suburban areas with relatively low job density. Richland Township contains more than double the number of jobs as Roxbury, however these jobs are distributed over about 5,000 acres, while Roxbury’s jobs are concentrated on only 165 acres.

All of Johnstown’s job centers are currently served by CamTran. However, outside of Downtown Johnstown, most job centers are highly dispersed and have disconnected road networks, which poses a challenge to designing effective transit service.



Figure 4 | A passenger boards a CamTran bus at the Transit Center in Downtown Johnstown

In Cambria County as a whole, the largest employers by number of jobs are:

Employer	Location	Jobs (approx.)
<b>Conemaugh Health System/Conemaugh Physicians</b>	Various locations in Johnstown and Richland Township	4,000
<b>University of Pittsburgh at Johnstown</b>	Richland Township	1,500
<b>Leonardo DRS</b>	Richland Township	400
<b>Lockheed Martin Aeroparts</b>	Richland Township	400
<b>Cambria County Association of the Blind and Handicapped</b>	Johnstown and Ebensburg	400
<b>JWF Industries</b>	Johnstown	400
<b>Walmart</b>	Johnstown and Ebensburg	400
<b>Concurrent Technologies Corporation</b>	Richland Township	300
<b>McAneny Brothers Inc.</b>	Ebensburg	300
<b>Penn Highlands Community College</b>	Richland Township	200
<b>Kongsberg</b>	Richland Township	200
<b>Ameriserv Financial</b>	Johnstown	150
<b>First National Bank</b>	Johnstown	150

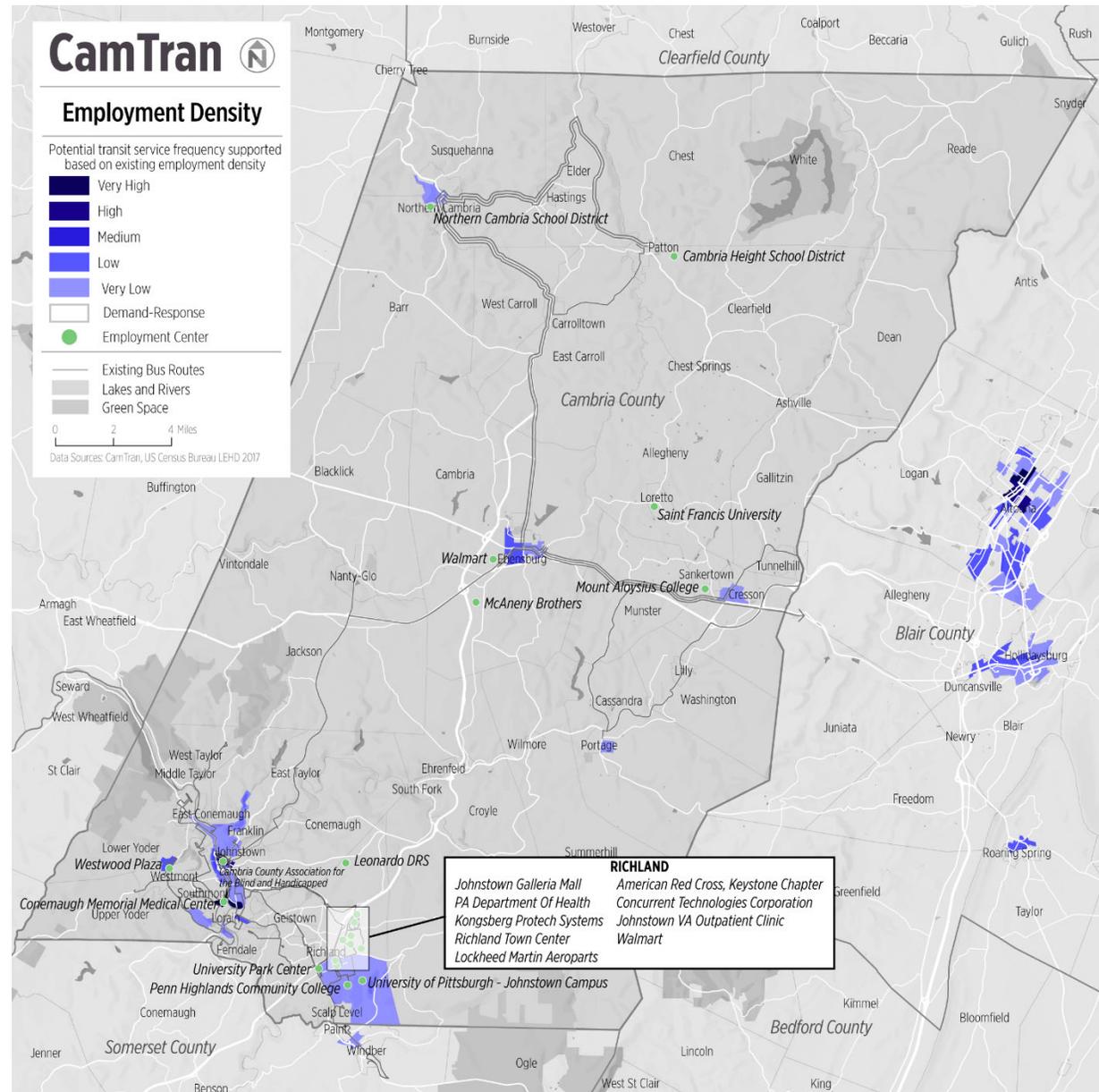
CamTran and CamTran+ routes directly serve all of these large employers, with the exception of McAneny Brothers Inc. in Ebensburg and Saint Francis University in Loretto.

There are few communities in Cambria County beyond the Johnstown area with a substantial concentration of jobs. Areas with low to medium employment density include:

- Ebensburg
- Cresson
- Portage
- Northern Cambria

All four of these communities are currently served by CamTran+.

Altoona, in adjacent Blair County, is a major regional employment center. As detailed in the Travel Flows section, several thousand Cambria County residents currently drive to the Altoona area to access employment opportunities. CamTran+ currently provides one round trip per day between Ebensburg and Altoona on Route 36, though this route does not serve Downtown Altoona or the Altoona Metro Transit (Amtran) hub.



## Demographics and Transit Propensity

In addition to population density and job density, this market analysis studies the distribution of different socioeconomic groups, because national research shows that many population groups often have a higher propensity for transit use than the overall population. These include:

- **Zero-Vehicle Households:** People with limited or no access to a personal vehicle, either by choice or by necessity, are more likely to rely on transit. In Cambria County, people without automobiles largely consist of those with lower incomes or those who do not drive, and they are 17 times more likely than the typical resident to take transit.
- **Low-Income Residents:** Residents with lower incomes tend to use transit to a greater extent because it is less expensive than owning and operating a personal vehicle; they may rely on transit as their primary mode of transportation. Cambria County residents making less than \$25,000 per year are significantly more likely than the typical resident to take transit, while residents making more than \$35,000 per year are far less likely to take transit because they are likely to be able to afford a vehicle.
- **Racial and Ethnic Minorities:** In Cambria County, people of color use transit more often than white non-Hispanic residents because they tend to have more limited resources for transportation and live in denser neighborhoods closer to the city center. Black residents in Cambria County are 14 times more likely than the typical resident to take transit, while white residents are about one-third less likely.
- **Foreign-Born Residents:** Residents of Cambria County who were born outside of the United States tend to fall within at least one of the above more transit-dependent demographic groups. They are almost four times as likely as the typical resident to take transit.

Demographic Group	Transit Propensity
<b>Race/Ethnicity</b>	
White or Caucasian	0.7
Black or African American	14.1
Hispanic or Latino	1.4
Other Race	2.1
<b>Vehicle Ownership</b>	
No Car	17.3
One Car	1.0
Two or More Cars	0.4
<b>Place of Origin</b>	
<b>Native Born</b>	1.0
<b>Foreign Born</b>	3.8
<b>Annual Income</b>	
Less than \$10,000	2.2
\$10,000-\$15,000	1.9
\$15,000-\$25,000	1.6
\$25,000-\$35,000	1.0
More than \$35,000	0.3

Figure 5 | Transit Propensity Index Factors in Cambria County

When these transit propensity-related socioeconomic characteristics are considered, residents of Johnstown and some other urban areas have a higher propensity to use transit, and most residents of outlying areas have a lower propensity to use transit.

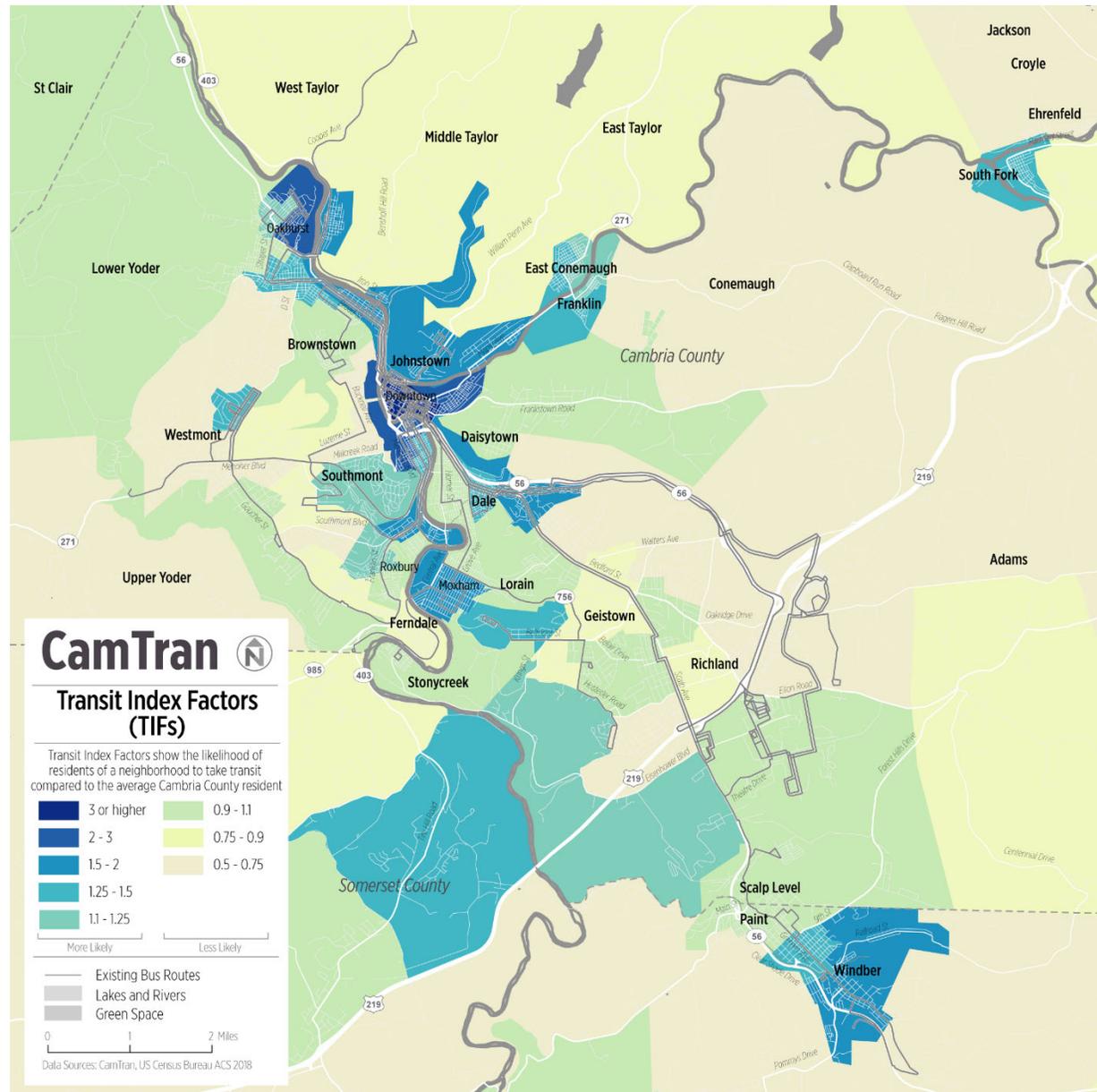
## Johnstown Area Propensity

Around Johnstown, the areas where residents have the highest propensity to use transit include:

- Downtown Johnstown
- Kernville
- Oakhurst

Other communities where residents have a very high propensity to use transit (more than 1.5 times more likely to use) include:

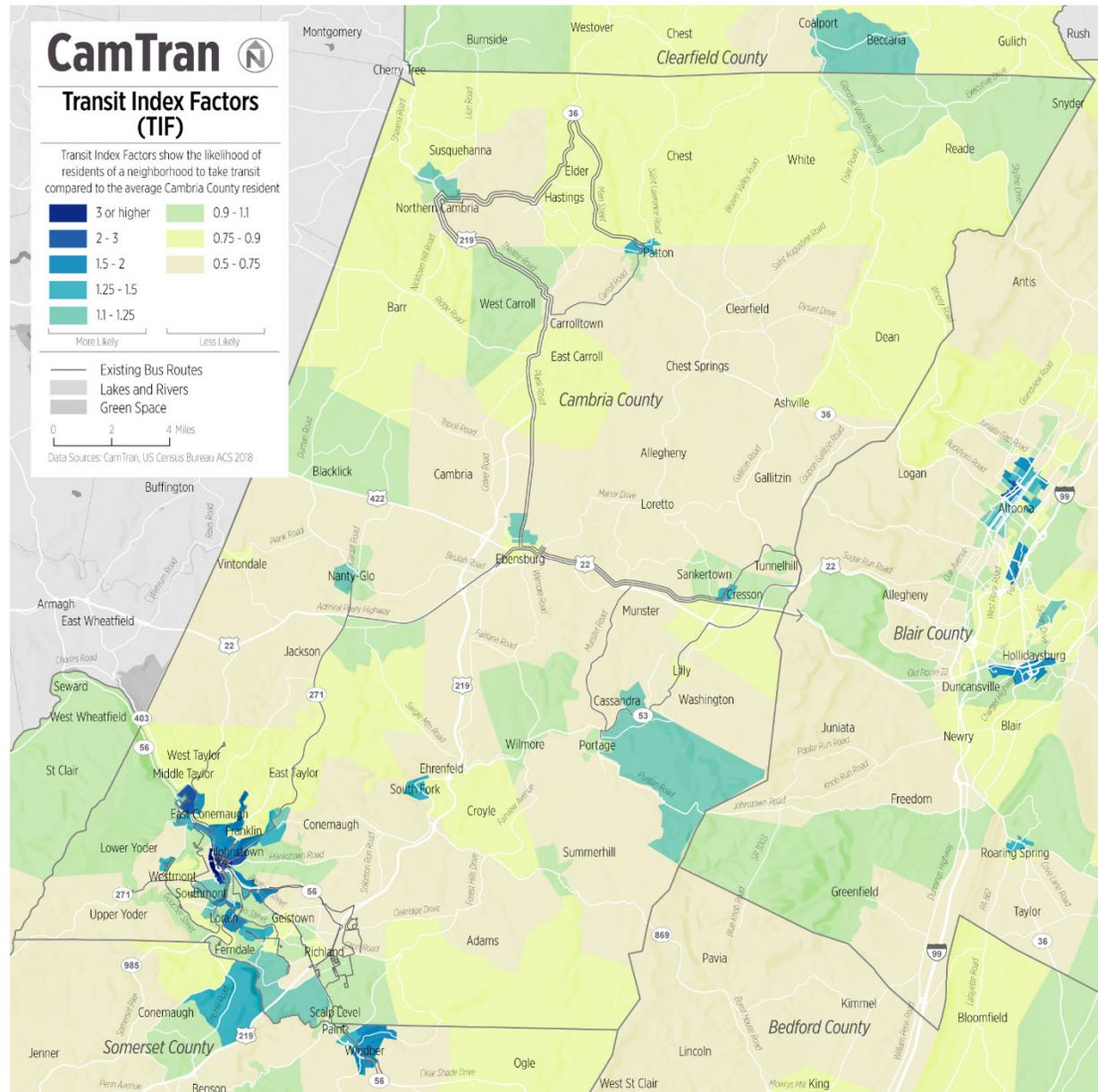
- Coopersdale
- Prospect
- Woodvale
- Walnut Grove
- Roxbury
- Moxham
- Windber



## Countywide Propensity

Regionally, the trend of residents in more urban areas having a higher propensity to use transit holds true. Most areas in the larger region have low transit propensity, meaning individuals living in these areas are unlikely to use transit compared to the average population. Areas outside of Johnstown where residents are more than 1.25 times more likely to use transit include:

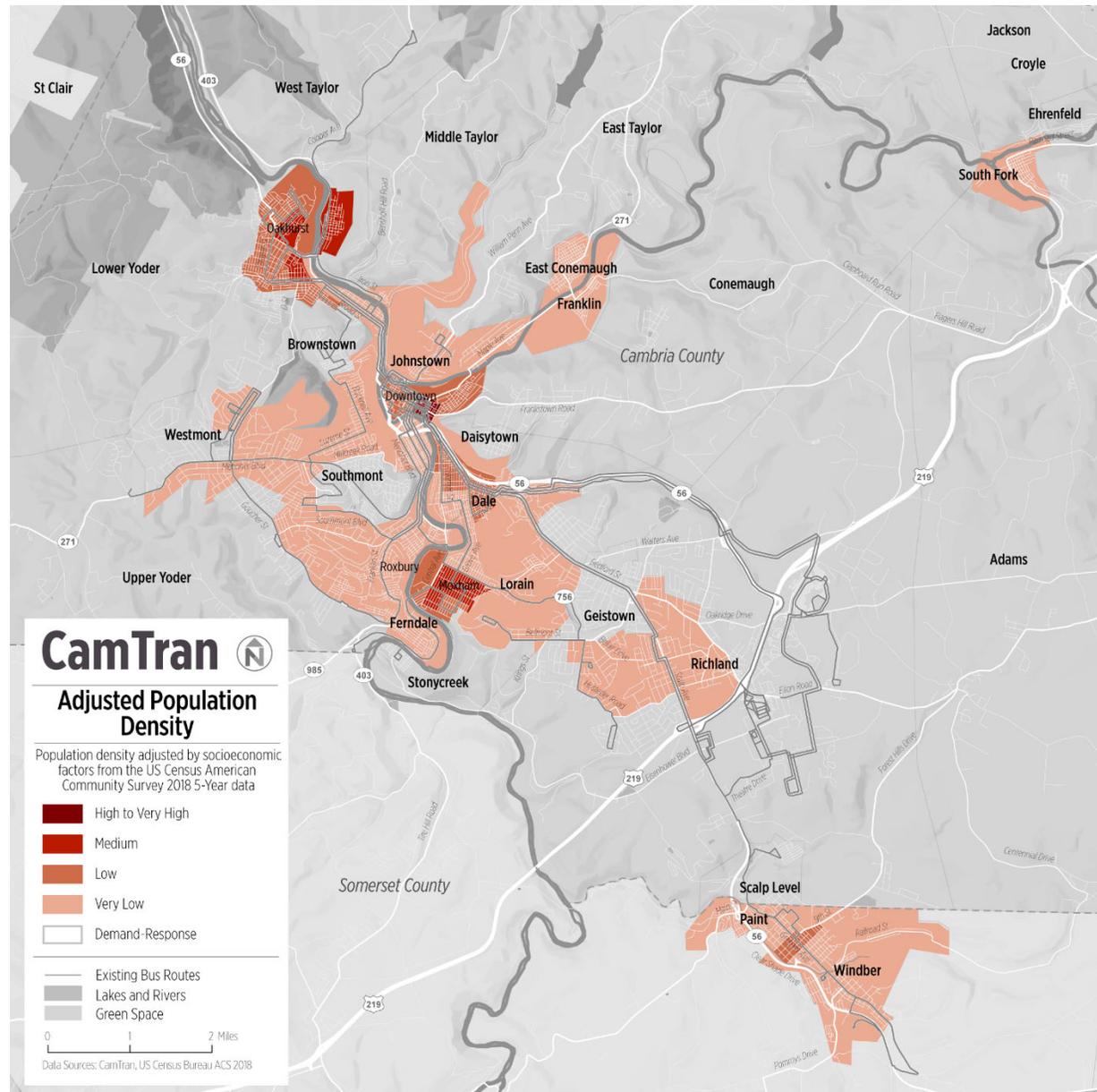
- Patton
- Cresson
- South Fork



## Adjusted Population Density

In Johnstown, when socioeconomic characteristics are considered with population density, demand increases in the denser residential neighborhoods. At the same time, demand diminishes in more outlying areas. Areas near Johnstown that, when demographic characteristics are considered, have a high or very high underlying population-based demand for transit are:

- Coopersdale
- Oakhurst
- Downtown Johnstown
- Moxham





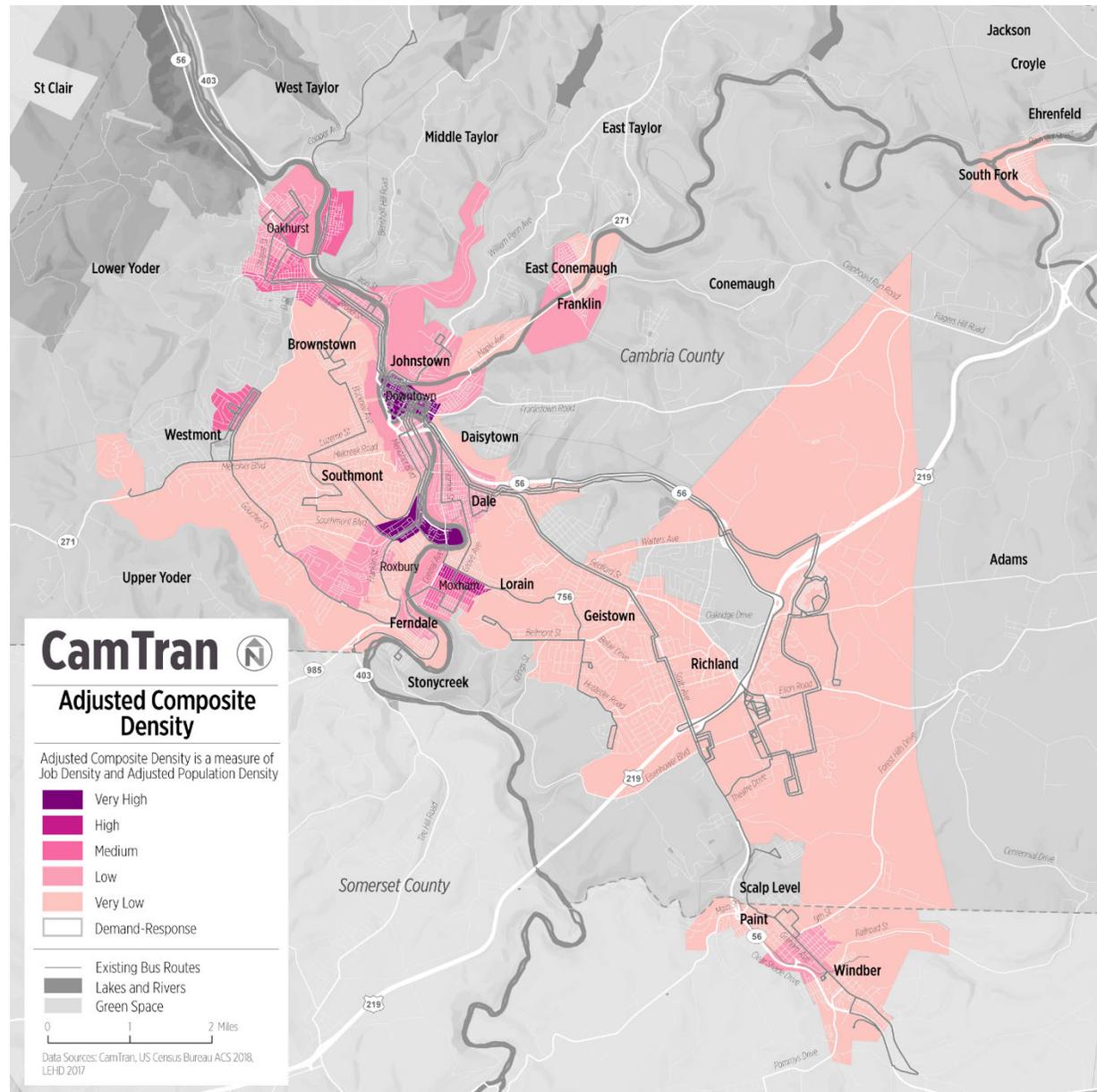
## Underlying Transit Demand

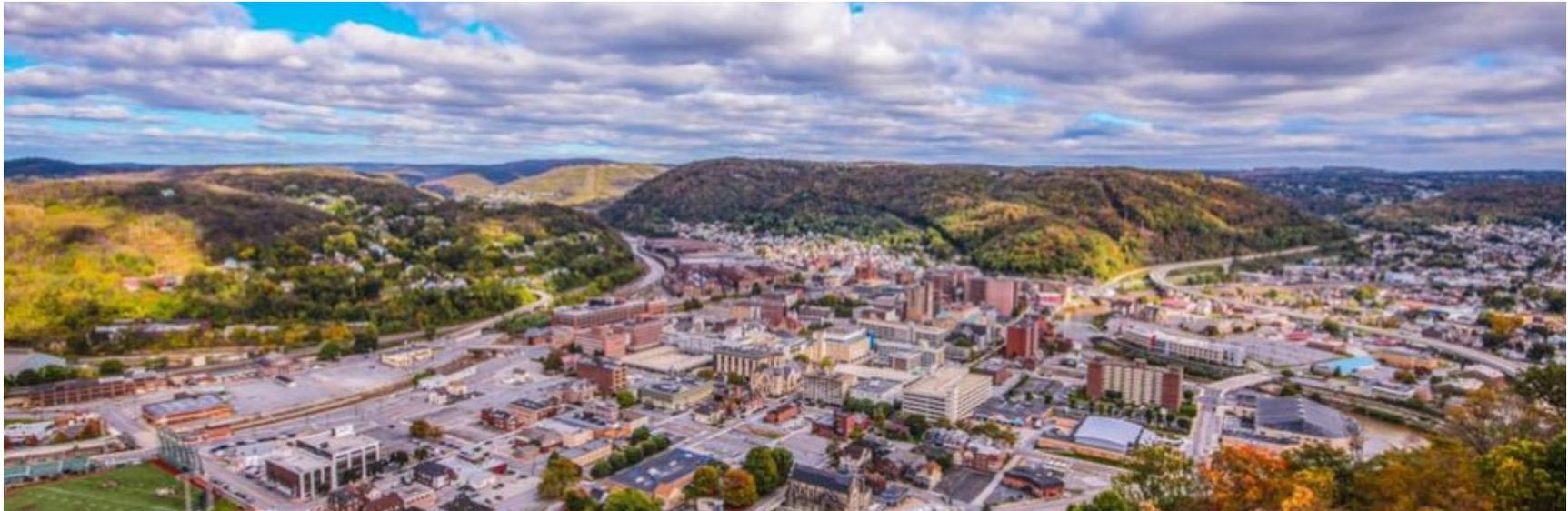
The previous sections have described how population density, socioeconomic characteristics, and employment density separately produce demand for transit. Looking at these factors in combination is the best way to get a complete understanding of the underlying demand, as none of these three aspects of demand exist in isolation from one another.

## Johnstown Area Demand

When population and employment-based demand are considered together, it becomes clear that the underlying demand for transit is high in much of Johnstown proper, and generally declines with distance from the core. Neighborhoods of Johnstown with high or very high demand for fixed-route transit—enough to support service at least every 30 minutes all day—include:

- Downtown Johnstown
- Roxbury
- Moxham





The rest of Johnstown can support at least hourly transit service, but demand is especially concentrated along certain corridors well suited for more frequent service, including:

- Strayer Street, Fairfield Avenue, and Broad Street between Oakhurst and Downtown Johnstown
- Cooper Avenue in Coopersdale
- Main Street, Locust Street, and Maple Avenue between East Conemaugh and Downtown Johnstown via Franklin, Woodvale, and Conemaugh
- Bedford Street between the University of Pittsburgh at Johnstown and Downtown
- Scalp Avenue between Windber and Bedford Street
- Goucher Street between Westwood Plaza and Franklin Street

- Ferndale Avenue, Central Avenue, and Homer Street between Ferndale and Downtown Johnstown
- Menoher Boulevard in Westmont and Southmont

As described in the previous sections, CamTran provides service on all these corridors. However, much of that service is infrequent and provides indirect or circuitous service.

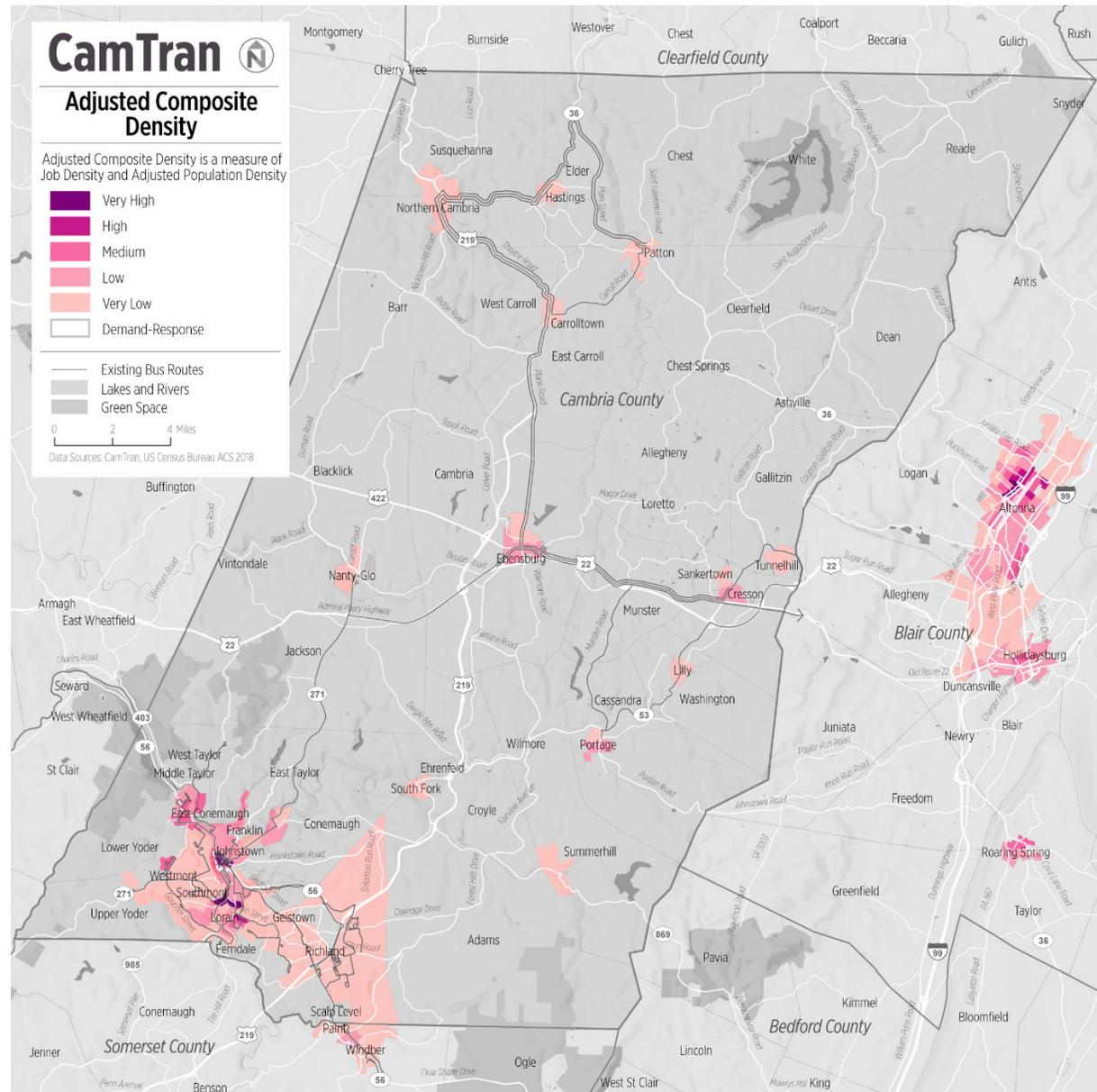
### Countywide Demand

There are several areas of Cambria County where transit demand could potentially support fixed-route service:

- Ebensburg
- Nanty-Glo
- Hastings
- Lilly and Portage
- Cresson, Sankertown, and Tunnelhill
- Northern Cambria, Hastings, Carrolltown, and Patton
- South Fork and Sidman

CamTran+ routes currently provide access to all these areas except South Fork and Sidman.

Many Cambria County residents living in areas without sufficient density to support fixed-route transit rely on public transportation options for mobility. CamTran serves these residents with demand-response options, including Reserve-a-Ride. As described later in this document, there are additional alternative service options that CamTran could introduce to serve these customers, because the unshaded areas of the adjacent map are unlikely to support fixed-route service of any kind.



## Major Activity Centers

Some activity centers generate additional demand for transit. Most of these places – large employers, shopping malls and retail centers, hospitals, housing developments and town centers – generate relatively consistent demand for transit

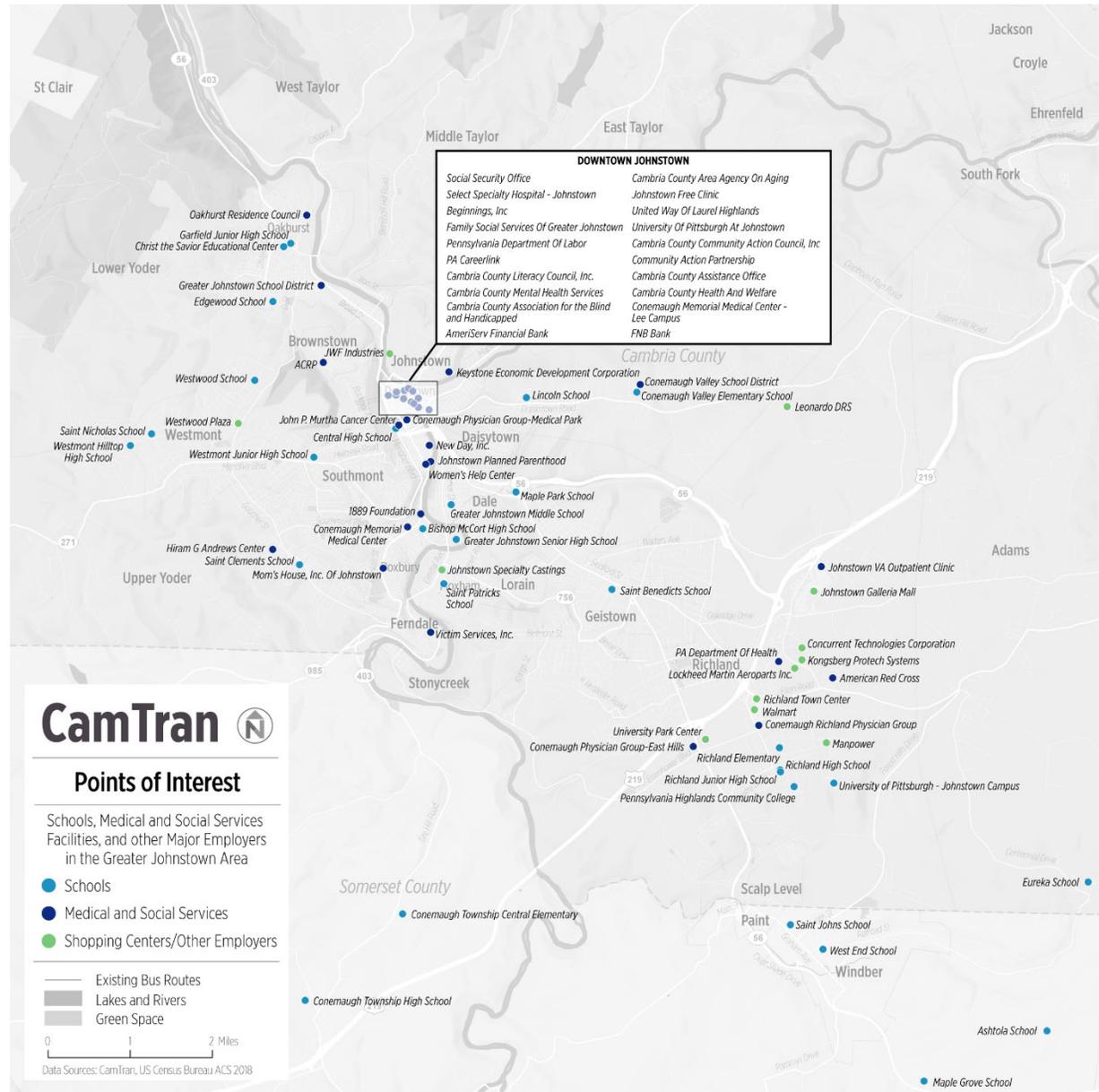
throughout the year. Other activity centers like colleges and universities are significant transit demand generators only during certain seasons of the year.



## Johnstown Area Activity Centers

While many of Johnstown’s major activity centers are in areas with medium or high demand for transit, many are not. These locations represent points that may warrant transit service nonetheless. The CamTran urban system was designed with a focus on Downtown Johnstown, which was the traditional center for employment and the commercial heart of the region. As a result, transit routes were designed in a radial pattern to take people to and from Downtown.

Today, while Downtown does remain an employment center, many employers and commercial centers exist outside of Johnstown proper.



Major activity centers in the Johnstown area include:

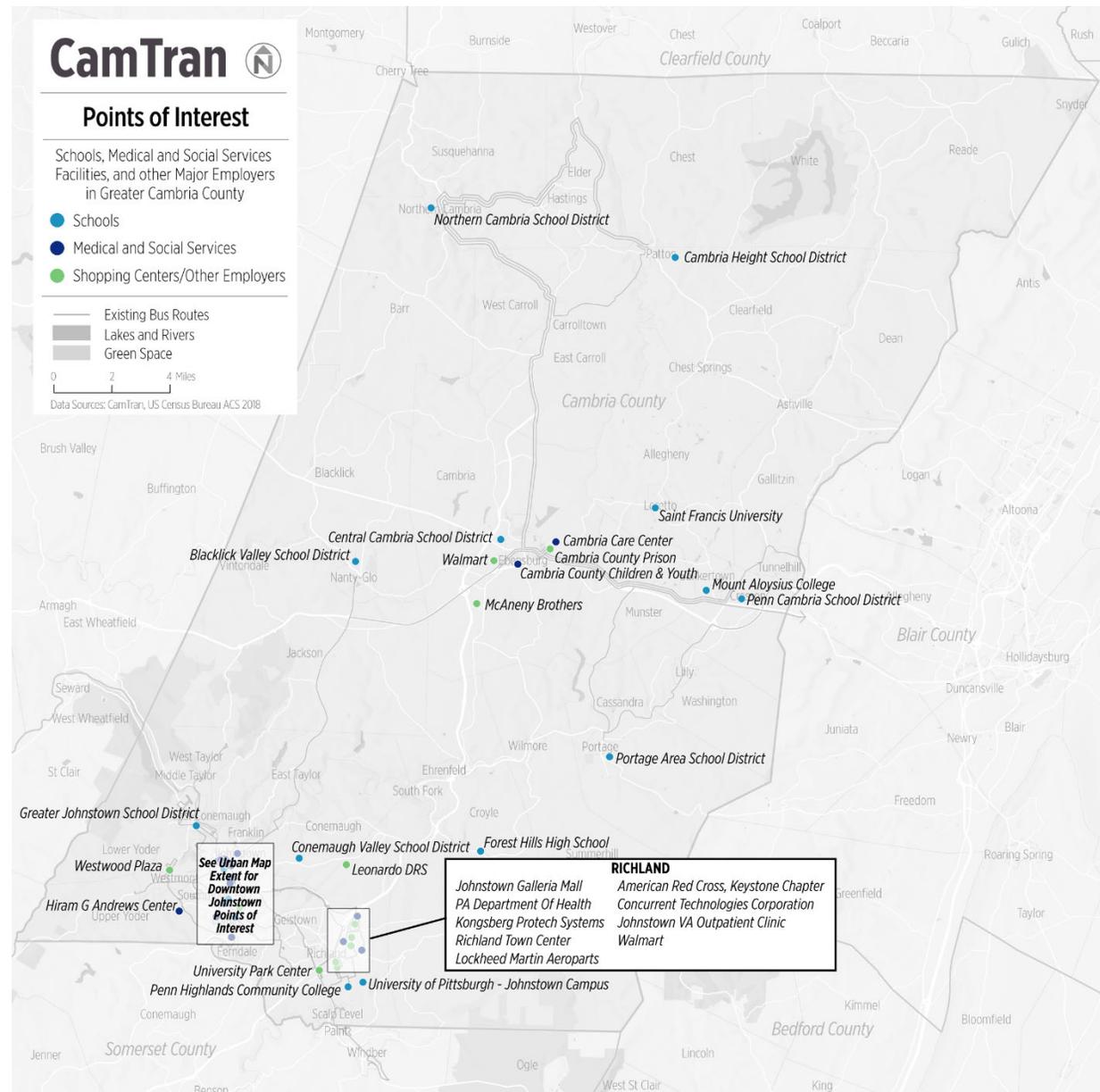
- Memorial Medical Center (2,965 employees)
- Conemaugh Physicians Group (521 employees)
- Cambria County Government (809 employees)
- Richland Town Center and Walmart
- Johnstown Galleria Mall
- Hiram G. Andrews Center
- Industrial Park along Industrial Park Road and Donald Lane
- Westwood Plaza
- University of Pittsburgh at Johnstown
- Penn Highlands Community College

All of Johnstown's major activity centers are served by CamTran service today, although service in Richland Township is often circuitous and indirect.



## Countywide Activity Centers

Outside of Johnstown, Cambria County's major job center is Ebensburg—the county seat—which is well connected to the region with CamTran+ service. The major activity center that is not served by CamTran+ is Saint Francis University, located in Loretto.



## Fixed-Route Service Alternatives

The primary barriers to providing effective transit service to Cambria County’s jobs and transit-reliant residents is the suburban-style development of many locations, disconnected street network, varying topography, and distance. Job centers to the southeast of Johnstown—like the Galleria, Richland Town Center, and retail along Scalp Avenue—are designed for access by personal automobile, with poor sidewalk infrastructure, large surface parking lots, and wide high-speed arterials. Johnstown’s dramatic topography poses an additional challenge for providing direct transit access to job centers like the Conemaugh Memorial Medical Center in Roxbury, located at the bottom of a steep hill. Moreover, simple distance makes transit travel to some regional job centers inconvenient; some significant job sites like the University of Pittsburgh at Johnstown are located miles away from the densest residential neighborhoods of the region.

Traditional fixed-route bus services, including circulator service, should operate in areas that have sufficient density and pedestrian infrastructure to support it. For areas with low demand or challenging operating environments, there are many types of public transportation services, including flexible services like “flex” routes, demand-response, and/or ridesharing services (see figure on next page).

### Local Circulators and Feeders.

Local circulator services typically operate on a frequent headway and are designed to directly serve important destinations and corridors. Johnstown currently provides circulator service downtown with its Route 18 Downtown Shuttle service.

Feeder services are designed to provide an easy connection to transit stations or high frequency transit services.

### Flex Routes

Flex services are a hybrid between fixed-route and demand response service. Flex routes travel along a fixed alignment with scheduled start times but can deviate from the route to directly serve a destination if requested by a rider. Passengers may also “flag” a bus at any safe point along the fixed route rather than having to walk to a specific stop. CamTran+ routes operate as flex routes.

### Demand Response and Microtransit

Demand response services provide door-to-door trips within a specified service area using smaller transit vehicles. These services typically operate in lower density suburban and rural communities. CamTran operates regional demand-response service with its Reserve-a-Ride service.

Private companies, often in partnership with transit agencies, have begun introducing a new type of demand response service known as Microtransit. Microtransit typically uses a smartphone-based platform that enables customers to hail a shared-ride on demand or with a short wait.

### Rideshare Services (TNCs)

Private rideshare companies, or Transportation Network Companies (TNCs) like Uber and Lyft, compete directly with transit and evidence suggests that they play a role in the declining transit ridership across the country. However, public-private partnerships with these companies can also help serve as a way for individuals to reach fixed-route services on demand and be integrated into a transit system rather than compete by serving trips in low-density areas that are not efficiently served by traditional transit.

While density, more than raw numbers, matters most to traditional fixed-route or frequent service, office parks and warehouses, which employ many people in one area, are often a priority for a region to serve with transit. Often employees of these areas are lower income or work second and third shift times and may have fewer resources to put toward transportation. Large employers often take an interest in how their employees get to work and are more likely to have the resources to invest in their employees' commutes. The industrial and warehouse uses along Industrial Park Road and Donald Lane could be well-suited for rideshare partnerships.

### Transportation Management Associations

Employment areas that lack concentrated density but still form a congregation of employers are prime targets for Transportation Management Associations (TMAs), public-private partnerships between transit agencies and local employers who run shuttles or van services that coordinate with public transit services. Schedules and drop-off points can be coordinated to get employees to and from the main sites of a service area. This type of service is much more efficient than a fixed-route looping bus service. Coordinated partnerships can help get employees to their destinations faster, and they can help a transit agency run more productively. The industrial and warehouse park along Industrial Park Road and Donald Lane could potentially be served by a TMA.

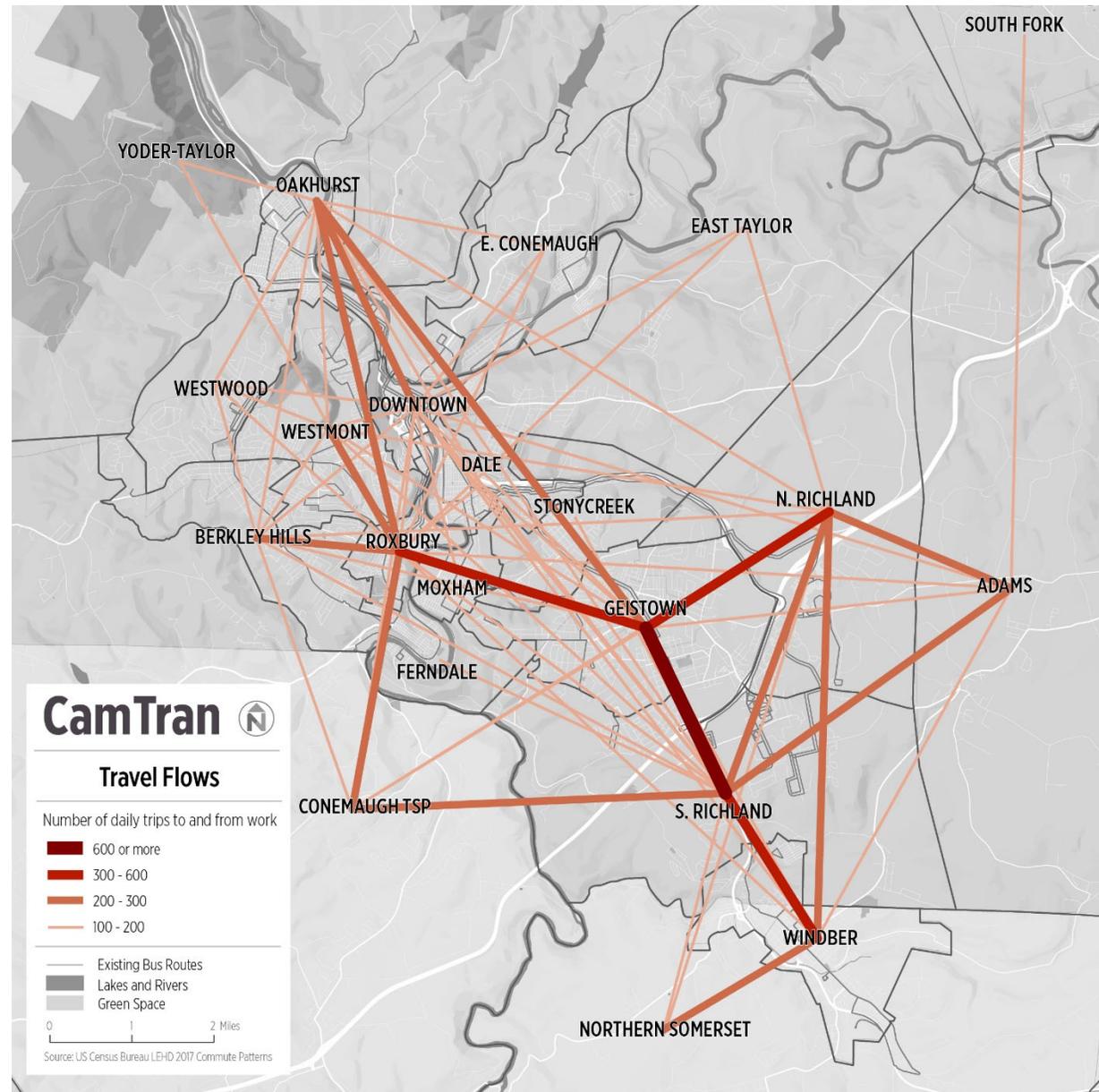
#### TRANSIT SERVICE TYPES FOR LOW DENSITY AREAS

		BENEFITS AND CHALLENGES	VEHICLE TYPE
LOCAL CIRCULATOR		<p><b>BENEFITS</b> Stops are close together, requiring less walking. Provides good coverage, serving a wide variety of destinations.</p> <p><b>CHALLENGES</b> Routes can be circuitous and make frequent stops, causing longer travel times. Riders have less flexibility about when they travel. Longer travel times which attracts fewer riders than other fixed-route services.</p>	
FEEDER		<p><b>BENEFITS</b> The schedule of these services is tied to the arrivals and departures of high-frequency transit service. Alignments are direct in order to make the trip as fast as possible to riders. Cost effective way to allow riders to make long distance trips on transit.</p> <p><b>CHALLENGES</b> Feeder services are for passengers planning to connect to another transit service and must be very reliable to ensure that passengers make their connection.</p>	
FLEX ROUTE		<p><b>BENEFITS</b> Flex service can meet requirements for complementary ADA paratransit service without traditional demand response service. Riders can get door-to-door service if their trip starts and ends within the 1/4 mile boundary.</p> <p><b>CHALLENGES</b> Riders may not know when the bus is coming. Travel is indirect and trips can take a long time due to deviations requested by riders.</p>	
DEMAND RESPONSE (RESERVE A RIDE)		<p><b>BENEFITS</b> Provides service in areas that lack the population density to support fixed-route bus service. Improves the mobility of residents without other travel options.</p> <p><b>CHALLENGES</b> Often requires 24 hour advance reservations, reducing service convenience. High cost per passenger than other transit services.</p>	
RIDESHARE SERVICES		<p><b>BENEFITS</b> Provides service in areas that lack the population density to support fixed-route bus service. Improves the mobility of residents without other travel options.</p> <p><b>CHALLENGES</b> Providing only a subsidy of TNC trips could result in passengers paying high fares. Difficult to set restrictions on trips.</p>	

## Travel Patterns

For transit to be effective, it must take people from where they are to where they need to go. Travel flows which show the places where people travel within the study area are one method to determine where direct or quick transfer connections should be established within an area. Travel flows within the study area were mapped based on work trips taken between travel analysis zones, which are defined by county subdivisions and city neighborhoods.

The following map shows all travel flows across Johnstown and its immediate vicinity. The map on the next page shows the larger region with travel flows across Cambria County and its neighboring counties. These maps show daily weekday work trips made by all modes, including both transit and automobile trips. The data is sourced from the Longitudinal Employment Household Dynamics (LEHD) survey from the US Census Bureau. It is important to note that this data is based on household tax returns, indicating the places of residence and the places of work for the population in the area.



## Johnstown Area Travel Flows

CamTran’s route network reflects Downtown Johnstown’s historic role as the business district and government center for the region. Today, however, many jobs have moved outside of Downtown to Richland, Roxbury, and Westwood. The largest travel flows in the area thus no longer always begin or end in Downtown. Instead, the largest daily commute flows are between Geistown and Richland Town Center, Geistown and Roxbury, Geistown and North Richland, and Windber and South Richland. There are also substantial travel flows between Oakhurst and Downtown Johnstown, Roxbury, and Geistown; and between Roxbury, Westmont, and Berkley Hills.

These findings in combination suggest there may be opportunities to increase transit ridership by providing more direct service to jobs in Richland and Roxbury, especially from neighborhoods west and north of Downtown Johnstown.

## Countywide Travel Flows

Johnstown continues to be a major destination for people traveling from communities throughout Cambria County. More than 1,000 people per day travel between Johnstown and Ebensburg, Adams, Windber, and Conemaugh. Within Cambria County, between 500 and 750 people per day travel between Johnstown and Jackson; Johnstown and Summerhill; Ebensburg and Jackson; and Ebensburg and Cresson. Each of these travel markets is connected by some level of CamTran+ service, except Johnstown and Summerhill. This may indicate demand for additional fixed-route bus service between Johnstown and communities such as South Fork.

## Potential Regional Transit Markets

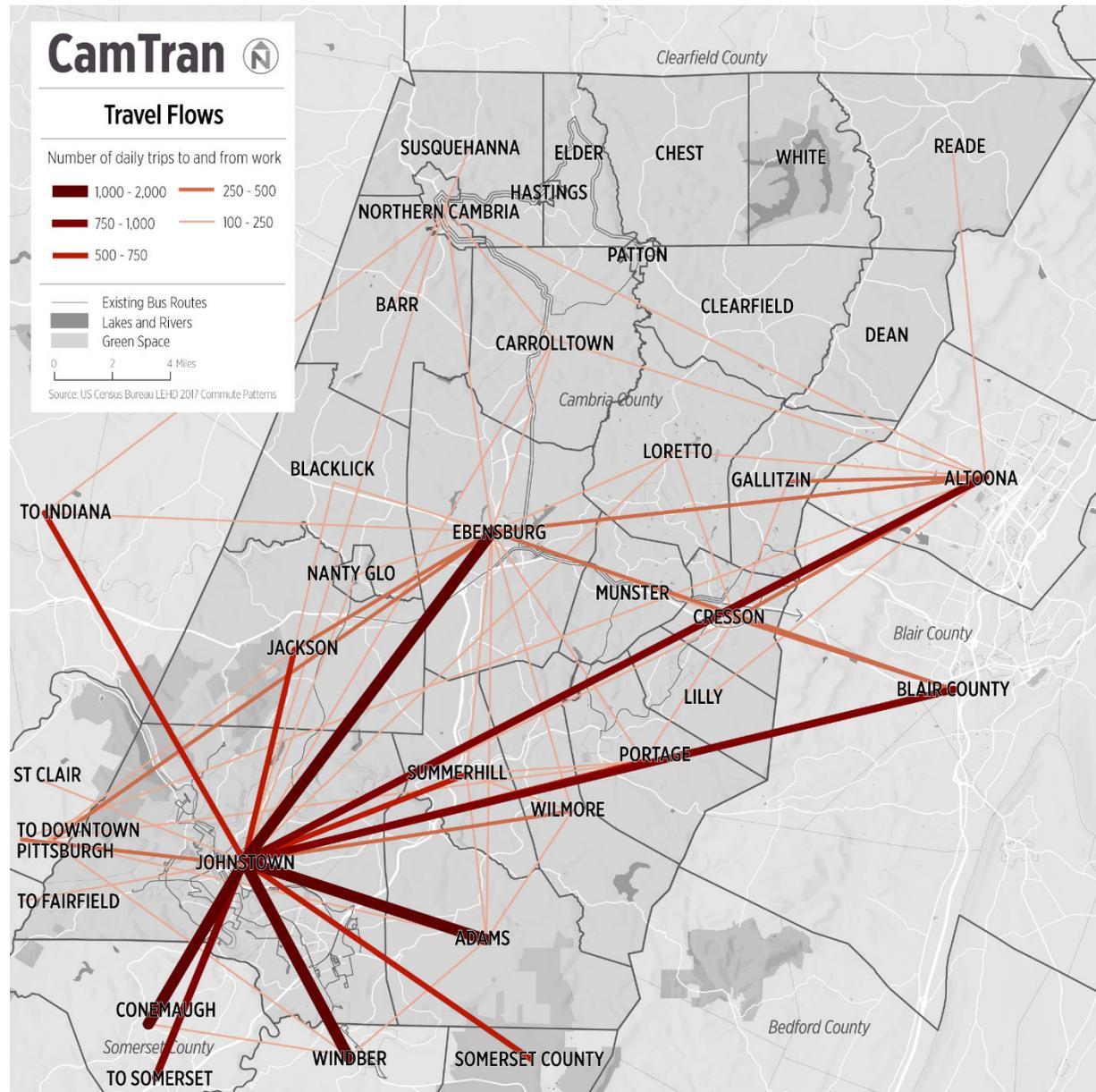
In addition to Johnstown, many Cambria County residents work in and travel to adjacent communities with major employment centers, such as Altoona and Indiana. There may be opportunities to provide all-day or peak commuter fixed-route bus service between Cambria County and these locations. However, most customers with other travel options will only use commuter services that provide a one-seat ride from their residence or from a nearby park-and-ride and their place of employment. Commuter services thus must serve specific travel markets with enough demand for successful transit, rather than just county-to-county flows.

Top Travel Flows from Cambria County Population Centers	Existing Average Daily Trips	Potential Daily Bus Riders at Different Transit Mode Shares		
		County Mode Share (1.1%)	Johnstown Mode Share (5.4%)	High Mode Share (10%)
Johnstown – Altoona	992	11	54	99
Johnstown – Borough of Somerset	819	9	45	82
Johnstown – Indiana, PA	680	8	37	68
Ebensburg – Altoona	427	5	23	43
Johnstown – Downtown Pittsburgh	423	5	23	42
Cresson – Altoona	396	5	22	40
Gallitzin – Altoona	306	3	17	31

Figure 6 | Potential Regional Express Bus Markets

The table on the previous page shows the largest total travel markets between communities within Cambria County and nearby commuter destinations. The largest flows exist between Johnstown and Altoona, Somerset, and Indiana. Between 800 and 1,000 people per day travel to and from Johnstown and both Altoona and the borough of Somerset. About 700 people travel between Johnstown and Indiana. Looking further, about 400 people per day travel between Johnstown and Downtown Pittsburgh. There are also more than 300 riders each traveling between Altoona and Ebensburg, Cresson, and Gallitzin. The table also shows how many riders would use a potential commuter service for each market, based on the countywide transit mode share (1.1%), Johnstown area mode share (5.4%), and high mode share (10%). For example, around 1,000 people travel between Johnstown and Altoona each day. With a 5.4% transit mode share, about 54 one-way trips would be served by a potential commuter bus service.

While regional and commuter bus services are most successful when they have limited stops, there is some potential for routes to serve multiple travel markets. For example, a route from Johnstown to Altoona could also serve people



traveling to these cities from Ebensburg, Cresson, and Gallitzin. In some cases, combining markets could increase the viability of a commuter service that would otherwise not generate enough ridership to be viable.

Based on regional travel flows, there may be potential for commuter service between Johnstown, Ebensburg, Cresson, Gallitzin, and Altoona. Services to Downtown Pittsburgh /Allegheny County, Somerset, and Indiana are less likely to be successful due to a combination of limited travel flows, long distances, and few intermediate destinations.



## Summary

Johnstown and Cambria County are generally well-covered by existing transit service, although there remain some important gaps between existing service and market demand. Some locations in the service area, even those like Oakhurst with relatively high population density and a concentration of residents with a high propensity for transit use, are served by lower levels of service than is warranted by demand. Additionally, some existing services do not adequately serve crosstown trips, especially to job opportunities and activity centers outside of Downtown like Roxbury, Richland, and Westwood. Across the region, commuter patterns may support expanded CamTran+ service between Cambria County communities and Altoona.

**Areas of high demand are underserved.** In the immediate vicinity of Johnstown, there is demand for relatively frequent service between Johnstown and Roxbury; along the Bedford Street-Scalp Avenue corridor; and between Oakhurst and Johnstown along Strayer Street-Fairfield Avenue-Broad Street.

**Access to major centers and job sites is inconvenient.** Richland Township's dispersed collection of job sites (along Scalp Avenue; at Richland Town Center; on and adjacent to the University of Pittsburgh at Johnstown campus; in the industrial park; and at the Johnstown Galleria Mall) are served by 4 routes (Route 9, 11, 17, and 21). However, service is circuitous.

**There is a lack of crosstown connections.** Travel flows indicate important commuter trips that are not captured by existing CamTran service. The most notable are travel flows between Roxbury and Geistown; Roxbury and Oakhurst; and

Geistown and Richland. Today, these trips are either underserved or require traveling out-of-direction for long distances.

**There are significant geographic barriers within the service area.** These barriers include steep hills which limit where routes can go and how customers walk to service. The Stonycreek River and Conemaugh River further divide neighborhoods and require that transit routes use a limited number of bridges.

**Opportunities may exist for expanded regional service.** While there are not enough commuters to support a regional peak commuter service between Johnstown and Pittsburgh, there does exist sufficient demand to potentially support a regional all-day or peak commuter service between Johnstown and Altoona via Ebensburg, Cresson, and/or Gallitzin. Today, customers making this trip must transfer between CamTran+ routes in Ebensburg. Route 36 service between Ebensburg and Altoona operates only once per day and does not serve Downtown Altoona or the Amtran bus hub.

