12-2013

The Future of Transit in West Virginia

Diana Long
Rahall Transportation Institute

Benjamin L. Blandford
University of Kentucky, benjamin.blandford@uky.edu

Peter J. Dailey
Rahall Transportation Institute

Sinaya Dayan
Rahall Transportation Institute

Justin Matthews
Rahall Transportation Institute

See next page for additional authors

Authors
Diana Long, Benjamin L. Blandford, Peter J. Dailey, Sinaya Dayan, Justin Matthews, and Kent Sowards

The Future of Transit in West Virginia

Submitted to the West Virginia Division of Public Transit
December 2013

1800s

2000s

1832
First horse drawn streetcar in New York, NY

2013
Rahall Transportation Institute releases "The Future of Transit in WV".

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

The Rahall Transportation Institute provides innovative transportation and economic development research, education and technology solutions.

Prepared for
West Virginia Division of Public Transit
213067

December 9, 2013

Principal Investigator:

Diana Long

Researchers:

Ben Blandford
Pete Dailey
Sinaya Dayan
Justin Matthews
Kent Sowards

The Future of Transit in West Virginia

Rahall Transportation Institute
907 Third Avenue
Huntington, WV 25701

TABLE OF CONTENTS

HISTORY OF TRANSIT IN WEST VIRGINIA

The year was 1865, and the War Between the States was coming to a close. The North would claim victory this year in the surrender of General Lee's forces at Appomattox, after devastating assaults from a Northern foe that was claiming not only military dominance, but also economic and technological supremacy. The late 1800s would experience a change in technology in the United States the likes of which the world had not seen since the invention of the printing press. In West Virginia, granted statehood in 1863, the changes would be as transformative as they were to the rest of the world. And in 1865 public transit began with the Wheeling system of horse-drawn trolley cars.

The Wheeling system was the beginning of an interurban public transit movement. Up until this time period, people traveled on foot or by personal carriage or wagons. Sometimes they travelled with their families or friends, but trips between urban centers took a great deal of time, roads were nothing but trails of dirt, and many did not have access to basic personal transportation other than walking. In West Virginia, the geography made things even more difficult. With the Appalachia Mountains creating a natural barrier to the major cities in the East, and the varying landscape being difficult to traverse, most West Virginians were confined to their communities. In 1887 however electric cars revolutionized mass transit, beginning the "interurban" movement, which Parkersburg, Wheeling, and Huntington took a major part in by setting up their own systems that ran intrastate and interstate lines.

The early 1900s saw the upsurge in transit, rail in particular. It was the age of the "robber barons," incredibly successful and rich business tycoons. Many were involved directly in the railroads, and the major ambition of the time was to link the East Coast markets with those in the West. West Virginia again being one of the major barriers in westward expansion was again a central player in transit. West Penn Railways (1904), Lewisburg and Ronceverte Railway (1906), and the Wellsburg, Bethany, & Washington (1908) Railroad were all built during this time of massive industrialization and economic expansion. Add to this expansion the booming coal industry, which was tripling production almost every decade, and West Virginia became the focus of many transit related developments. Huntington began streetcar operation in 1900. Fairmont and Clarksburg Traction started in 1901. The Parkersburg and Marietta Interurban was built in 1903. Charleston, Princeton, and Bluefield would all have transit lines built during this time. With the successful American involvement in World War I and the subsequent roaring twenties, these lines continued to flourish.

Transit, like many other industries, began to suffer in the 1930s. In West Virginia, Lewisburg and Ronceverte Railway ceased in 1930 as well as Tyler Traction. The downward spiral for transit continued until World War II. The war, with its gasoline rationing and focus of production on military instead of consumer goods, provided a boost to mass transit as people now began sacrificing personal comforts for their country.

After World War II, transit began seeing a true decline. With rates set by government agencies, inflexibility in business models, and an increased attitude of personal freedom and individualism, ground-based mass transit could not compete with faster airplanes or more personal transportation such as automobiles. In West Virginia, this combined with a fall in living standards and an increase in poverty that made transit economically and financially impractical. Cooperative Transit Company (formerly Wheeling Traction) ceased, Fairmont lines stopped, the last street car ran between Parkersburg and Marietta, and City Lines ceased. With other transit lines having stopped operation in the 1930s, transit was devastated during this period.

Guy Span and Cliff Slater have credited the fall of the streetcar to the Great American Streetcar Scandal taking place between 1936 and 1950, in which several companies, GM chief among them, bought electric streetcar systems and converted them to bus systems. Naturally, buses rely more on automobile companies for running, and the government convicted several of the companies for "conspiracy to monopolize interstate commerce." The destruction of streetcars may have been a move to force Americans to use automobiles, though no definitive evidence of this conclusion has been found (Slater, 1997; Span, 2003).

The situation required action. Buses began to replace streetcars, taking advantage of the creation of the first diesel bus in 1941 and the development of the Interstate Highway System in 1965. In West Virginia, many of President Kennedy's and Johnson's War on Poverty policies began using transportation as a way to revitalize the state. These efforts began to work.

Federal legislation provided monies and autonomy in their business. The Urban Mass Transportation Act of 1964 and the Highway Act of 1973 all assisted in reviving US transit, and combined with income boosting efforts did the same in West Virginia. Another catalyst was the takeover of failed or failing private bus companies by West Virginia municipal and county governments. These two developments led to the establishment of most of the public transit agencies from 1971-1977.

In 1974 rural West Virginia elderly, low income, and disabled people were consistently indicating the need for transportation. There was either no way to get to goods and services, or what was available was unaffordable. In response to the problem the Office of Economic Opportunity, the Federal Highway Administration, and the West Virginia Department of Welfare under the guidance of Senator Jennings Randolph and Governor Arch Moore came up with a two part plan. They devised a ticket program, very similar to the Food Stamp Program, and a bus transportation system to make the citizens of rural areas in West Virginia more mobile. The entire program was given the name TRIP that stood for "Transportation Remuneration Incentive Program". The tickets were available through the West Virginia Welfare Department in books valued at $8. Qualified individuals could purchase a book of tickets for $1 and those needing more could purchase as many as three books monthly. The tickets could be used on local bus systems, taxis, and Greyhound. When the Surface Transportation Act was passed in 1978, the Section 18 program, now the Section 5311 program, was created to assist rural general public transportation systems. This program, along with state assistance, provided the much needed funding to continue the transit demonstration programs on a permanent basis. Systems started under the TRIP demonstration program that remain in existence today are the Potomac Valley Transit Authority, the Mountain Transit Authority, the Buckwheat Express (Preston County) and the Eastern Panhandle Transit Authority which is now an urban transit system.

More recent actions have seen the recovery and success of mass transit. The major turning point for mass transit, particularly rail, was the Staggers Act of 1980. The Staggers Act, named after West Virginia Congressman Harley Staggers, deregulated much of the rail industry, and indirectly released the transit industry to work as economic situations allowed. In 1991 the West Virginia Division of Public Transit was created to help citizens "reduce traffic congestion, help the environment, and save money." The 1980-1990s brought five more transit operators on board, and an additional two operators were added in 2006.

In the new millennium, several transit agencies have evolved to provide more services in line with the public need. Dial a Ride (non emergency medical transportation) was first established at Potomac Valley Transit while Mountain Lines was the first agency to install bike racks on busses in 1996. Mountain Lines then entered into an agreement with West Virginia University to provide free transit for faculty, staff and students. In 2009, KRT and TTA established a route to connect Huntington to Charleston and return on a daily route to serve government workers. However, in this same time frame Greyhound eliminated some of intercity bus service in West Virginia, stranding citizens with no personal transportation, limiting their access to many important areas of West Virginia.

West Virginia has witnessed and been a part of much of transit's history of highs and low, reflective of the history of the nation and the state, and continues to be an active player in the development of public transit.

SCOPE OF WORK

In 1999 RTI completed its first study as a newly established University Transportation Center entitled Finding a Ride: Identifying Transportation Related Barriers to Health Care in a Rural West Virginia County. Since that publication RTI has championed the mission of public transit and has pushed for expansion and improvement of transit services as an economic development engine.

The "Future of Transit in West Virginia" is a study of the current system of public transportation in West Virginia and an examination of issues, priorities and projections of the public transportation network in the coming years. The purpose of the study was to examine the existing public transportation systems in WEST VIRGINIA and compile a document that would discuss transit's relationship with economic development efforts, potential corridors of transit to improve mobility and access to employers, inter-county commuting patterns, opportunities and barriers to coordination, funding, and transit workforce needs of the future.

The study was supported by funds from the West Virginia Department of Transportation, Division of Public Transit and from The Transit Training Partnership, an initiative funded by the West Virginia Legislature through the Community and Technical College System of West Virginia. RTI staff contributing to the study included:

· Diana Long, Principal Investigator
· Pete Dailey
· Sinaya Dayan
· Justin Matthews
· Eric Pennington

A Steering Committee was established to guide the study and the membership included:

· Ben Blandford, University of Kentucky
· Beth Carenbauer, Work Force West Virginia
· Paul Davis, Tri-State Transit Authority
· Sinaya Dayan, Rahall Transportation Institute
· Brenda Harper, West Virginia Chamber of Commerce
· Dan Hartwell, West Virginia Department of Health and Human Resources
· Scott Herick, Appalachian Regional Commission
· Debra Jenkins, West Virginia Rural Health Association
· Mark Julian, West Virginia Development Office
· Beverly Kitchen, Charleston Area Medical Center
· Barry Kelly, West Virginia Department of Education, Adult Education
· Monica Miller, Local Capacity Development, West Virginia Development Office (WVDO)
· Susan O'Connell, West Virginia Department of Transportation
· Ben Shew, West Virginia Department of Education, Transportation
· Paula Smith, Tri-River Transit
· Kent Sowards, MU Center for Business and Economic Research

1800s

SCOPE OF WORK

The scope of work for the study included a review of the literature, a compilation of a timeline on the history of transit in West Virginia, site visits and interviews with transit professionals, an examination of Federal Transit Administration (FTA) and Moving Ahead for Progress in the 21st Century (MAP-21) transit funding, and surveys of students, employers, health care providers and employers.

The literature review focused on the following research questions:

1. Does public transit service have an impact on economic development?
2. Does public transit service have an impact on welfare recipients?
3. To what extent has private industry entered into partnerships with public transit as a means of recruiting and retaining their workforce? Do these partnerships exist in rural areas?
4. Does public transportation have an impact on a person's access to healthcare in rural areas?
5. What role does public transportation have in transporting students to and from post-secondary education institutions?
6. How will technology impact rural public transportation in the future?

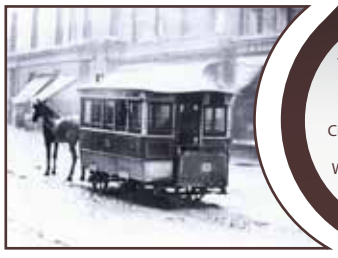
Specific West Virginia data was collected during the study to determine:

1. To what extent does public transit service in West Virginia provide access to jobs, education, and healthcare?
2. How is public transit funded in West Virginia and what are the future possibilities and obstacles for funding?
3. What are the issues involving the adoption of technology that could improve public transit service in West Virginia?
4. Are there emerging transit corridors that could be developed to support economic development in specific regions?
5. To what extent are private employers investing in or willing to invest in public transit to help in recruiting and retaining of workers?
6. To what extent are changing demographics impacting access to public transit?
7. How do post-secondary students perceive public transit and their access to education?
8. How do employers perceive the role of transit?
9. How do health care centers perceive the role of public transit in providing access for clients and employees?
10. What are the perceptions of transit professionals in West Virginia in regard to the present and future of transit in West Virginia in regard to workforce, operations, stakeholders and technology?

Appendix A attached to this report displays the maps referred to in this report. Please refer to these maps for valuable visual information as well as analysis of the information displayed in this report.

1832

The first horse drawn streetcar was used in New York, NY.



1865

Citizen's Railway Company opens horsecar line in Wheeling, WV three years after being chartered.

REVIEW OF THE LITERATURE

ECONOMIC IMPACT OF TRANSIT

The literature was clear on the positive impacts transit can have in a community. From an economic development perspective access to business, customers, jobs, and education is a key component in an area's viability. Even though public transit is commonly viewed as a social service, studies have supported the positive economic impact of transit. Faulk and Hicks (2010) found that relative to counties without bus transit, counties with bus systems have significantly lower unemployment rates, lower growth in family assistance, lower growth in food stamp payments, and higher populations and employment growth. Businesses also benefit from the existence of transit. White (2006) reported the importance of access to public transit on the success of community development. The study found that commercial interests have greater confidence in the future of a community if it is served by regional local bus stops. Transit provides local businesses with a wider possible range of customers and makes it easier for their own employees to get to work. Hill and Brennan (2005) stated that when a firm considers a business location it compares the revenue opportunities available at different sites against the access to different pools of labor that each site offers and differentiates between business operating costs associated with each site.

Litman (2012) showed that transit can support economic development in several ways including increased employment and business activity resulting from expenditures on transit services. Several positive support mechanisms are increases in consumer expenditures when consumer expenditures are shifted from vehicles and fuel to more locally-produced goods, productivity gains with improved access to education and jobs, reduced costs to businesses, improved land use efficiencies, increased accessibility and clustering, support for strategic economic development objectives, and increases in property values. Deka (2002) suggested using commuting time calculations to develop strategies on attracting jobs to inner cities, planning for worker dispersal to growth areas, and considering improvements in transportation connections, which will encourage job placement and growth.

Capital investment in public transportation is a significant source of local jobs in the United States. According to a 2009 Weisbrod study for every billion dollars spent on transportation capital in a year, 24,000 jobs were supported. Investment in public transport expands service, improves mobility and can significantly affect the economy. Capital investment in public transportation involves purchases of equipment and facilities as well as other required infrastructure. Investment also boosts operations-support-associated jobs such as drivers and allows for purchases of supplies needed for continuing the operations such as fuel and maintenance parts. These components of direct spending can directly support short-term construction jobs and long-term operations jobs creating large indirect impacts on industry activity and employment (Weisbrod, 2009).

Transit is further linked to communities by affecting costs of living. The H+T Affordability Index offers a comprehensive way of examining the cost of housing and housing affordability. Provided by the Center for Neighborhood Technology, the index is the only tool that examines transportation costs at a neighborhood level and provides data analysis for 89 percent of the US population. Transportation costs include all costs that make up a daily routine including commuting, errands, and other travel. Car owners incur car payments, insurance, maintenance and gas costs while transit riders costs consist of the price of transit (Center for Neighborhood Technology, 2012).

The index shows that transportation costs vary between and within regions depending on neighborhood characteristics. There are many factors that need to be considered in determining where to live and access to essential services is of high importance (Center for Housing Policy, 2012). Individuals living in location-efficient neighborhoods (access to jobs, services, transit, etc.) tend to have lower transportation costs. Inefficient locations (requiring the use of automobiles) are more likely to have high transportation costs. Based on the traditional measures of affordability, 3 out of 4 US neighborhoods are considered affordable. However factoring transportation costs (typically a household's second largest expenditure) into the analysis, very few neighborhoods are considered affordable (Center for Neighborhood Technology, 2012). Between the years of 2000 and 2010, transportation costs increased 33 percent, with household income increasing only 25 percent (Center for Housing Policy, 2012).

Partridge, Ali, and Olfert (2010) found that de-concentration of urban economic activity to rural areas and rural-to-urban commuting are two ways in which rural areas may participate in growth. Rural-urban interdependence through commuting may also be conceptualized as a complex network of interdependency, rather than just a unidirectional influence. A regional transit policy approach to economic development would better serve both rural and urban communities. Local population growth is no longer as dependent on local job growth, but instead is dependent on job growth in urban places within commuting distance, leading to geographically large regional labor markets. For rural areas near urban centers, this type of population growth may be their best development strategy. Making rural communities attractive places to live depends on ready access to the highest order of goods and services (medical, transportation, and entertainment).

Transit Cooperative Research Project 64 described the importance of transit on welfare reform. The report showed that almost 75 percent of welfare recipients live in city centers or in rural areas, while job growth strategies focus on suburbs. Jobs in the retail and service industries typically require entry-level employees to work at night and on weekends. Most welfare recipients do not own cars. While urban residents generally have convenient access to transit services, those systems were never intended to get city residents to the suburbs – especially at night or on weekends. More than one-half of rural residents live in areas with minimal transit service or none at all. Women with young children – especially single mothers – are especially likely to incorporate multiple stops into their work trips. Welfare recipients may have difficulty using a bus schedule. Each of these obstacles makes it more difficult to cease using welfare, defeating the purpose of welfare policy.

Stomes and Brown (2002) recognize that rural passenger transportation has become increasingly important since welfare reform was enacted in 1996. Limitations of existing transit in terms of scheduling and routing still impede the ability of welfare recipients to obtain employment, make necessary childcare arrangements, and keep a job. Lee and Vinokur (2007) reported welfare recipients were unable to accept or keep employment because of transportation problems. Ong and Blumenberg (1998) used census data to map job-rich and job-poor communities and the average distance traveled to those communities by welfare recipients. The study revealed that improved access to jobs directly lowers commute distance thus reducing out-of-pocket expenses and opportunity cost associated with traveling to work. Blumenberg and Shiki (2003) supported the role transit plays in welfare reform as well. Rural welfare recipients face unique challenges, few jobs, lower wages and no public transportation. Transit investment must be targeted to insure travel times are reasonable, insure ridership is high enough to warrant the financial investment, and enable welfare recipients to access transportation in an expedient and convenient way.

1887
Wheeling, WV becomes the third city in the US to have a successful electric streetcar system.

1873
San Francisco, CA cable cars begin service.

Blumenberg and Schweitzer (2006) found evidence that the devolution of federal transportation authority has helped to create new and innovative transportation services targeted to low-wage workers. The FTA Job Access and Reverse Commute (JARC) program has resulted in projects that include subsidies for bus, train, carpool, van routes, subsidized bus purchases or leases, or anything else that facilitates transportation to suburban employment opportunities. While relatively few JARC programs have been funded in rural, mountain counties, the programs that are active improve existing fixed-route service either through service hour extension or by providing new service. None of the rural programs in the study included either demand-responsive service, or van pool or shuttle programs. If federal funds are not available many of the programs specifically for the poor dissolve. Sanchez (2008) found that transportation mobility is recognized as a significant barrier to employment. Fixed route bus service is still the primary mode of public transportation, but other service options that focus on increased flexibility and competition may further improve quality and lower the cost to the consumer (e.g. jitneys, shuttles, demand responsive service, taxis, and private sector options). Sanchez highlighted one demonstration project in Louisville, KY that provided an express bus to an industrial park, reducing the commute time from 2 hours to 45 minutes.

Stomes and Brown (2002) noted that rural transit may meet the mobility needs of the local traveler, yet service often stops at the county line, thus creating a disconnect. Intercity bus transit is often poorly linked with other types of local transit systems while rural passenger transportation has become increasingly important. Limitations of existing transit in terms of scheduling and routing still impede the ability of welfare recipients to obtain employment, make necessary childcare arrangements, and schedule health appointments. Martin and Taylor (1998) asserted that inbound and outbound services mostly connect residential suburbs to downtown, but they have not served inner city workers or rural workers seeking suburban employment. Hess (2005) found that if a person is transit dependent, long distance commutes may limit their chances to find and sustain employment.

EMPLOYER BASED TRANSIT INITIATIVES

In some cases employers develop their own transportation programs or offer a form of transportation subsidy. These programs are developed and implemented with four distinct goals in mind: to improve commute alternatives, improve facilities, provide financial incentives and offer on-site support services. Improved alternatives include carpooling, vanpooling, subscription busses/bus pooling, transit, park-and-ride shuttles, guaranteed rides home and bicycling/walking. Facility improvements include but are not limited to bus shelters, carpool drop off zones, bicycle facilities, and shower/changing facilities. Financial incentives are typically offered through transit pass subsidies, vanpool provisions, commute alternative subsidies, and transportation allowances. Distributing information about ridesharing and transit is key to increasing use and garnering support. On-site support can include on-site sales of transit passes, on-site transportation coordinators and management support, and rideshare events (EPA, n.d.).

The Community Transportation Association (2012) created the Joblinks "Transportation Toolkit for the Business Community" to give business the information they need to assist their employees in achieving a timely, cost efficient commute that promotes their productivity and employee job satisfaction rates. Their compilation of best practices highlights many employer-transit partnerships in urban areas including subsidized bus passes, bicycles, fares, walking shoes, subsidized express bus service, IRS qualified Transportation Fringe Benefit Programs, designated employee as the Employee Transportation Coordinator, guaranteed ride home programs, and internet based ride sharing systems.

1898

Parkersburg, WV replaces horse cars with electric streetcars, changing the name to Parkersburg Light, Power and Rail.

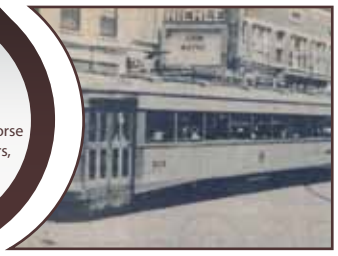


Table 1: Employer Sponsored Transportation Programs (CTAA, 2012)

Employer	Project Name	Funding	Benefits
Apple Computer	Commuter Choice Program	Apple Computer	At campus headquarters pays $100 per month of transit costs. Maintains database of ride share interested employees. Offers free shuttle on high tech-buses.
Bayer Corporation	Berkeley, CA Commuter Program	Bayer Corporation	Subsidizes three vanpools and provides Commuter Checks to employees using mass transit. Major sponsor of West Berkeley BART shuttle program which provides free transportation to and from BART stations
CALIBRE	CALIBRE's Transportation Benefit Program	CALIBRE	All employees in the capital area receive subsidized parking or participate in SmartBenefits or Metrochek (SmartTrip card for use on subway and commuter buses).
The Calvert Group	The Calvert Group's Transportation Benefit Program	The Calvert Group	Reimburses commuters using any form of public transportation to work at 100 percent of cost.
Chevron	Chevron's Commuter Benefits Program	Chevron	Offers vanpool program and shuttle bus service between its San Ramon facility and BART stations. Currently exploring tax benefits for employees using ridesharing.
Duke Energy	Duke Energy's Transit Subsidy Program		Partnered with the Charlotte Area Transit System. Provides bus passes to employees on a monthly basis and added light rail passes.
Merck & Co.; Meadowlink Commuter Services (New Jersey), Medical Area Services Company Commuter Works (Boston)	Merck's Commuter Choice Program	Merck &Co., Inc.	Seattle employees receive free bus passes. All employees are eligible to receive an Area Flex Pas, which offers users unlimited bus rides.
Yahoo	Yahoo's Commute Alternative Program	Yahoo	Free rides on Santa Clara County's local transit agency and commuter tax benefits. Employees also receive a 25 percent discount on other transit and vanpool costs.

Very few articles and rural based programs employer subsidized programs exist. The Community Transportation Association reported that Brazo, Texas' transit district partnered with Tyson's Food to run an express bus to its poultry processing plant and also with a chemical industry training facility to transport workers to and from the plants and the training facility. Smithfield Foods in Tar Heel, North Carolina, which operates a pork processing plant in this rural community , turned to the community for suggestions on transportation. In response, various convenience stores and churches in the community agreed to allow workers to meet in their parking lots for van pickups. The vans travel from North and South Carolina to the processing plant.

Nations Cities Weekly (1996) reported that Talihina Transit agency and the Oklahoma Department of Human Services developed a shuttle service to link over 100 residents with employment at a poultry plant in Fort Smith Arkansas, 60 miles away. Metropolitan Atlanta Rapid Transit Authority (MARTA) has more than 300 companies and properties enrolled in their Partnership Program. Employees of participating companies are given unlimited bus passes on a monthly basis and many of those employers contribute the pass as a "commuting pay raise" to increase morale, employee production, and attendance. Kim (2012) in her report for the Minnesota Public Radio reported on private transit companies providing service from San Francisco into the Silicon Valley. The tech world is driven by young, educated largely urban workers, but companies like Facebook, Google and Apple are located in the suburbs of Silicon Valley, which is about an hour south of San Francisco. To compete for that talent pool, big tech companies have to provide transportation. The report noted there were buses from Apple, eBay, Electronic Arts, Facebook, Google, and Yahoo. The buses ran through almost every neighborhood in San Francisco and were estimated to transport 14,000 people every day.

EDUCATION

Students are a prime example of transit users. According to a 2007 American Public Transit Association (APTA) report, students were the second highest users of transit systems, behind only those using transit to get to work. Transit is inexorably linked to education. Many young children take a bus to school every day, and college and university students take transit to get to class. College campuses are usually large, and many enroll non-traditional students who must commute long distances in order to get to class. In 2011, 82,518 students were enrolled in public colleges in West Virginia. Some must go to class, then go directly to a place of employment, adding more costs to their daily business. Even traditional students may live on off-campus housing, which could be anywhere in the vicinity of the school campus, from several feet to several miles. It is important for transit to operate in this case. The Victoria Transport Policy Institute (Litman, 2013) found that worker and student productivity both increase when transit increases. Transit has also been shown to decrease traffic and parking problems, major concerns for university and college students, and makes education more affordable by removing traveling costs. Factoring in help from home, which is not guaranteed for many students, and getting a job, the average student income is $1,200 a month (Nationwide, n.d.). Transportation costs can demolish these budget constraints, creating stressful situations, which impede learning and productivity.

1900s

MARTA's University Pass Program (UPASS) and School Discount Program in Atlanta partners with colleges, universities and technical/vocational schools and K-12 schools to sell discounted MARTA Breeze Passes to its students and faculty/staff (MARTA, 2013). In West Virginia, only West Virginia University has its own dedicated transit system, the Public Rapid Transit, and a contract with the local Mountain Line bus line. With around thirty institutes of higher learning in the state, many with multiple locations, it is essential to consider the benefits of transit to current students, attracting future students, and insuring financial stability for both students and the institutions. There is very little literature that discusses education access and public transit.

HEALTH CARE

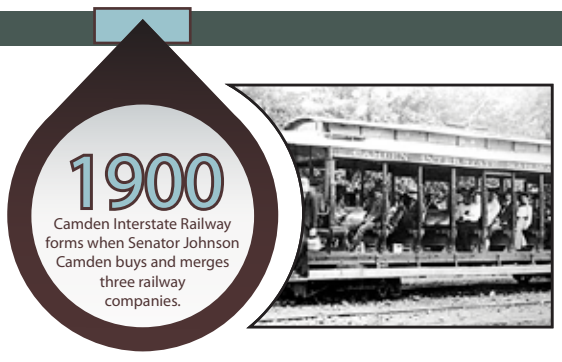
Transport access is essential to health care results. The Centers for Disease Control and Prevention (CDC), the United States' primary public health organization, recommended a strong public transit system to improve health and wellness of citizens (2012). Multiple reports have found that transportation access improves healthcare outcomes, and others have found that lack of transport access decreases health outcomes.

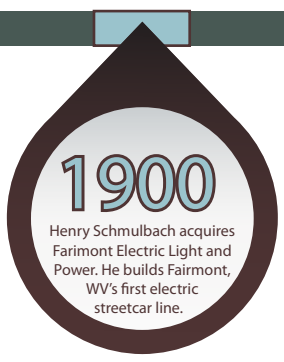
Transportation can account for large percentages of family budgets, making medical expenses, good food, and recreational needs difficult to meet. Redlener et. al. (2006) found that 4 percent of US children do not have health care visits because of difficulties in transportation. Operational and efficient transit systems are necessary to ensure optimal health outcomes.

Access to health care is a primary issue in West Virginia and the literature documents the role public transit has in improving access to health care services. Transit services that provide basic mobility such as access to medical services, essential shopping, education or employment opportunities can be considered to provide greater benefits (Litman, 2012). Wang and Luo (2005) looked at households without transportation and found that people dependent solely on public transit may have less mobility and their accessibility to physicians is diminished to a great degree.

Access to transportation to traverse the large distances between residences and health services in rural settings is a necessity. Arcury tested the relationship of different transportation measures to health care utilization while adjusting for the effects of personal characteristics, health characteristics and distance. Those who had a driver's license had 2.29 times more health care visits for chronic care and 1.9 times more visits for regular checkup care than those who did not. The small number who used public transportation had 4 more chronic care visits per year than those who did not. (Arcury et.al, 2005)

In 1999 the Appalachian Transportation Institute (Former name of RTI) published a study entitled Finding a Ride: Identifying Transportation-Related Barriers to Health Care in a Rural West Virginia County. The study reported that the lack of transportation led to missed health care appointments, some as many as 3 appointments over a three year period. Seventy-four percent reported that they were unable to get to a pharmacy.





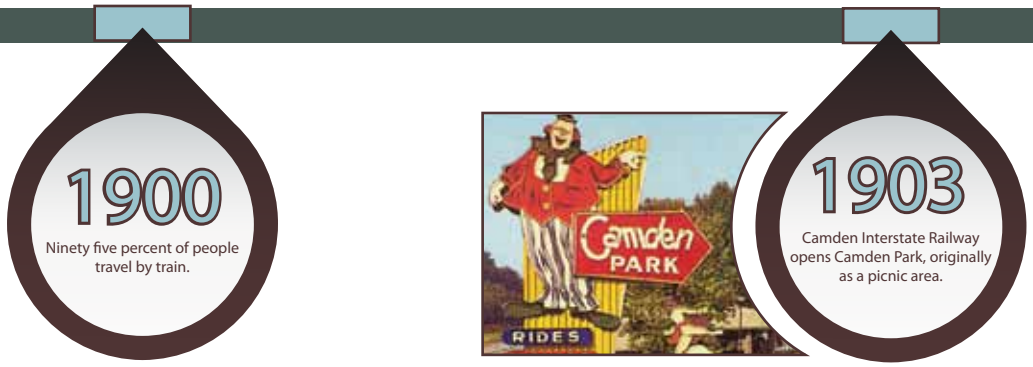
TECHNOLOGY

The US DOT publication Technology in Rural Transit: Linking People with Their Community (2002), identified transit Intelligent Transportation Systems (ITS) technologies most relevant to rural systems:

- Accounting software
- Automatic passenger counters
- Automatic Vehicle Location (AVL) systems
- Communications
- Customized spreadsheets and databases
- Demand-Responsive transit software
- Geographic Information Systems (GIS)
- Internet Web sites
- Maintenance software
- Silent alarm systems
- Mobile Data terminals
- Palmtop electronic manifest devices
- Personnel management software
- Signal priority
- Transit operations software
- Traveler Information systems

These information and communication technologies (ICT) are focused mostly on the system side. Lorion, Harvey, and Chow (2010) noted that the future of transit technology will be focused on the demand or user side. "User-based ICT for transit trip planning and advanced smartcards make it easier than ever to travel by multimodal transportation." Their paper also summarized recent research in flexible transit that may have applications to rural areas. They highlighted a "fully flexible alternative, where the route served is an area, as opposed to the traditional linear route or what is known as Mobility Allowance Shuttle Transit (MAST)." MAST service follows a fixed route but may deviate from it within a band to make demand responsive pickups or drops offs, usually following a no backtracking policy. By approaching suburban and rural transit in these ways, good quality transit service no longer has to cater only to high population densities (Mees, 2010).

The prevailing role of ICT and the emergence of "Big Data" analysis have made data more available than ever before, but there are insufficient training mechanisms to fully attain the advantages that all this data has to offer. Education in advanced data-driven transit modeling is not common, and many ICT associated topics are not taught. Flexible transit systems are covered primarily from a systems side without a deep consideration of user demand for such services (LaValle et al., 2011).

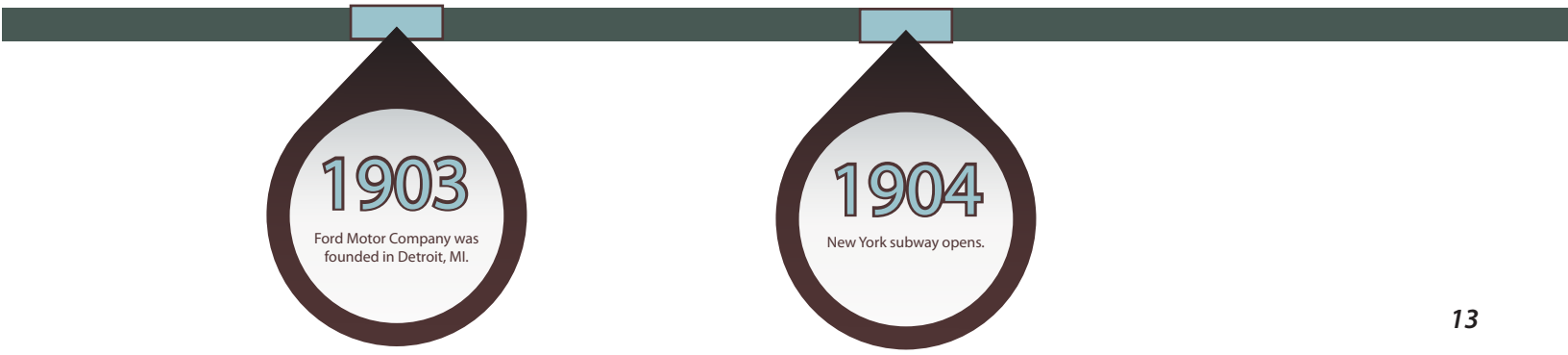


Slugging is a term used to describe a unique form of commuting found in the Washington DC area. A car needing additional passengers to meet the 3-person high-occupancy vehicle lanes requirement pulls up to a line and calls out a destination. The "slugs" first in line for that destination get in the car and are carried to their destination. Though no legal concerns have been raised yet, it is almost assured that there will be at some point (Sluglines, 2013). The development of these new technologies help riders of all economic groups, and will be useful for established transit managers as well.

FUTURE

Freemark (2010) stated that since suburban population densities are simply too low to support convenient transit networks, he encouraged the construction of denser communities that foster public transit. In West Virginia, "In locations that lack existing transit facilities or lack the demand to support a transit oriented development (TOD) regulations and guidelines that support transit ready development should be enforced"(Kimley-Horne, 2009). Since the majority of communities in West Virginia are established and growth is an issue for only a small number of counties, the question for the future of transit in West Virginia is "How to best serve the transit dependent, rural population, who are few in number but widely dispersed?" A review of the MPO's Transportation Improvement Program plans indicated that transit plans for the future mirror the plans in other rural areas (Bel-O-Mar, 2012a, 2012b, Kimley-Horne, 2013, MMMPO, 2012a, 2012b, WWWIPC, 2012). Funding uncertainties suppress plans, blocking any specific plans for the next 10-20 years. The larger transit properties were predicting the implementation of new technologies in their plans including GIS and GPS systems, the deployment of a system of charging stations within the region and new control systems. There were no light rail projects listed, and specifically the Charleston-Huntington rail project was pronounced unfeasible. Most of the plans called for additional facilities and services, specifically designed to be more flexible and connective.

Frequently, the MPO plans call for an increase in rideshare/vanpooling, contract taxi, and most look to administrative changes to help operate more efficient systems. Those administrative changes included management changes and mergers, a shared mobility manager position, cooperative purchasing, and actual merger of agencies under a central board of directors. The Morgantown MPO is establishing a committee to develop a plan to maximize eligibility for federal dollars and to review and propose West Virginia legislation to allow for more local control to apply for and receive funding.



FUNDING

FEDERAL FUNDING FOR PUBLIC TRANSPORTATION

In 2012, the U.S. Congress passed into legislation a new transportation spending authorization bill called Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 replaced the previous transportation funding and authorization bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which had authorized and defined transportation funding since 2009. MAP-21 authorized the Federal Transit Administration (FTA) at a funding level of $10.6 billion for fiscal year 2013 and $10.7 billion for fiscal year 2014.

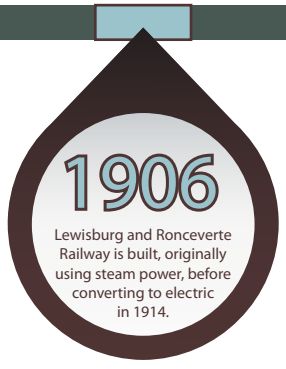
MAP-21 entailed significant changes to FTA-funded public transportation projects and services. These changes are designed to emphasize several important goals of the Department of Transportation, as they pertain to the provision of public transit.

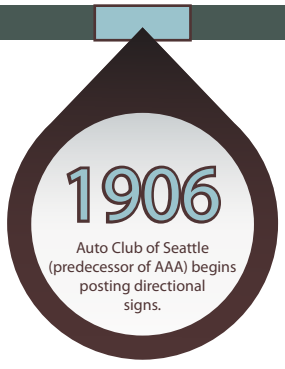
Safety: MAP-21 authorizes FTA to implement a new comprehensive framework to oversee and ensure the safety of public transportation systems. To this end, FTA funding recipients are required to have a safety plan in place before funding is made available. A safety plan should include methods for identifying and evaluating safety risks, strategies to minimize exposure to hazards and unsafe conditions, and performance targets for safety performance and state of good repair standards established in a National Public Transportation Safety Plan (FTA, 2012).

State of Good Repair and Asset Management: MAP-21 emphasizes the maintenance and replacement of aging transportation infrastructure. Under Section 5326, FTA is required to establish objective standards for defining and assessing "state of good repair." Recipients are required to develop transit asset management (TAM) plans and to set performance goals and report on progress toward achieving these goals within the related Transportation Improvement Programs (TIPs). MAP-21 also requires FTA to provide technical and decision support for agencies in identifying and estimating capital investment needs. Under Section 5337, a new formula funding program is established to maintain public transportation infrastructure in a state of good repair. However this funding program is only for fixed guideway systems, such as rail, bus rapid transit, and passenger ferries.

Streamlining Program Efficiency: Under Section 5309, eligibility for capital investment is expanded to include New Starts, Small Starts, and Core Capacity Improvement. For West Virginia, the Small Starts program is most applicable, as it includes capital projects seeking less than $75 million in funding and includes corridor-based bus systems, which emulate fixed guideway systems.

MAP-21 repealed or consolidated several discretionary funding programs. The Jobs Access and Reverse Commute (JARC) Program (Section 5316) was repealed; however specific JARC projects are still available for funding under other formula funding programs, such as Section 5307 in urbanized areas and Section 5311 in non-urbanized areas. The New Freedom Program (Section 5317) was repealed and consolidated into Section 5310, Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities. The Bus and Bus Facilities discretionary funding program (Section 5309) was also repealed and replaced by section 5339 Bus and Bus Facilities formula funding program.





At the heart of MAP-21 changes is the emphasis on performance-based planning. States and Metropolitan Planning Organizations (MPOs) are required to establish performance targets related to U.S. DOT performance goals described in the legislation. These include safety, infrastructure condition, congestion reduction, system reliability, economic vitality, environmental sustainability, reduced project delivery delays, transit safety, and transit asset management (APTA 2012). Transportation Improvement Programs (TIPs) are required to identify specific performance targets for the transportation systems and identify expected progress toward reaching those targets.

MAP-21 resulted in changes to nearly every FTA funding program. The nature of these changes, and their implications for the funding of public transportation in West Virginia, are discussed as follows for each relevant funding program.

5305(d) Metropolitan Planning Program and 5305(e) State Planning and Research Program.
MAP-21 authorizes $127 million in FY 2013 and $129 million in FY 2014 in federal funding toward metropolitan and statewide planning assistance. State DOTs are the direct recipients of FTA planning funds, and these funds are subsequently sub-allocated to Metropolitan Planning Organizations (MPOs) for planning activities that promote the economic vitality of the area. MAP-21 requires states and MPOs to implement a performance-based planning approach, including the development of specific performance targets and transportation system performance measures.

Nearly 83 percent of section 5305 funds are designated for the Metropolitan Planning Program, and the remaining 17.28 percent of funds are for the State Planning and Research Program. All section 5305 funds are allocated on a formula basis that incorporates the most recent decennial Census data available. In FY 2013, West Virginia was apportioned $417,363 for section 5305(d) and $110,936 for section 5305(e) (FTA 2013).

5307 URBANIZED AREA FORMULA PROGRAM

Section 5307 is the largest source of FTA funding and provides funding for transit capital, planning, job access and reverse commute, and in some cases, operating assistance, for public transportation providers in urbanized areas of population 50,000 or more. MAP-21 defines a job access and reverse commute (JARC) project as "a transportation project to finance planning, capital and operating costs that support the development and maintenance of transportation services designed to transport welfare recipients and eligible low-income individuals to and from jobs and activities related to their employment, including transportation projects that facilitate the provision of public transportation services from urbanized areas and rural areas to suburban employment locations." MAP-21 repealed JARC as a separate funding program, and instead combined it into existing funding programs 5307 (Urbanized Area Formula Program) and 5311 (Formula Grants for Rural Areas Program).

The total amount authorized by MAP-21 for Section 5307 is $4.4 billion for 2013 and $4.5 billion for 2014. From this overall total, there are three takedowns: $30 million is subtracted for a discretionary passenger ferry program, 0.5 percent is apportioned to eligible states for a State Safety Oversight (SSO) program, and 0.75 percent is set aside for general oversight of the program. Added to the total allotment is Section 5340 funds, which applies to qualifying states and Urbanized Areas (UZAs) for the Growing States and High Density States formula. Four formulas are used to apportion Section 5307 funding:

Urbanized Area Formula – for UZAs population 50,000 to 199,999, the formula is based on population and population density. For UZAs with population greater than 200,000, the formula is based on bus revenue vehicle miles, population, population density, and incentive measures.

Small Transit Intensive Cities (STIC) Formula – This program apportions funding to small UZAs (population 50,000 to 199,999) who provide transit service equal to or above the industry standard of medium sized UZAs (population 200,000 to 999,999). In FY 2013, four West Virginia UZAs were added STIC funding as part of their overall 5307 apportionment: Charleston, Parkersburg, Morgantown, and Wheeling.

Growing States and High Density Formula (5340) – This formula augments transit funding for qualifying states and UZAs that are characterized either as growing in population or having a high population density.

Low-Income Population Formula – This program apportions funding based on the ratio of the number of low income individuals in each UZA to the total number of low income individuals in all urbanized areas of that size.

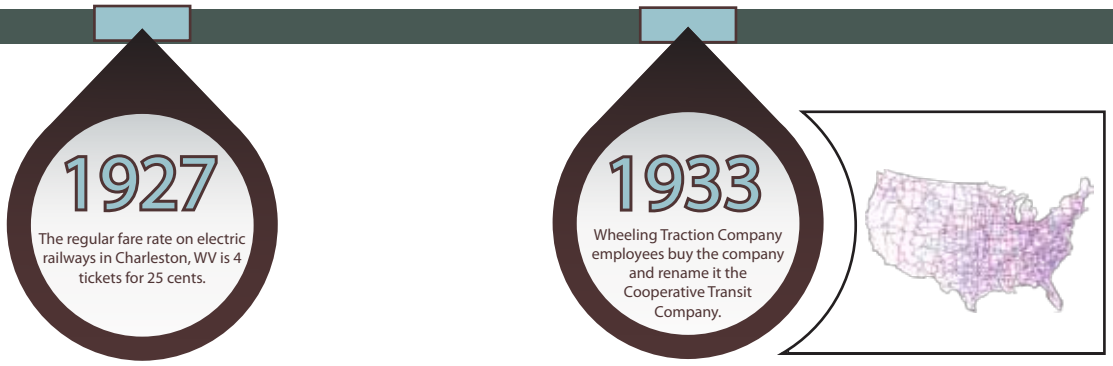
2010 Census results yielded nine localities in West Virginia that are classified as being part of Urbanized Areas (UZAs). One of these, the Huntington UZA, is of population greater than 200,000, and is therefore the direct recipient of FTA funding programs for the entire UZA, including portions of other states. The designated recipient for FTA funding in the Huntington UZA is Tri-State Transit Authority. The FTA funding totals are listed below (FTA, 2013a).

Table 2: Huntington FTA Funding Total

Urbanized Area (UZA)	Population (2010)	Total FTA 5307 and 5340 apportionments (2013)
Huntington, WV-KY-OH	202,637	$2,185,658

Eight other UZAs, at least a part of which are located in West Virginia, are of population 50,000 to 199,999. FTA funding for these UZAs is apportioned to the WVDOT Division of Transit, who then allocates these funds to the West Virginia portion of the UZAs. These totals are listed below.

Urbanized Area (UZA)	Total UZA Population (2010)	WV share of FTA 5307 and 5340 apportionments (2013)
Hagerstown, MD-WV-PA	182,696	$790,849
Charleston, WV	153,199	$2,728,006
Wheeling, WV-OH	81,249	$884,408
Weirton-Steubenville, WV-OH-PA	70,889	$374,989
Morgantown, WV	70,350	$1,543,390
Parkersburg, WV-OH	67,229	$981,022
Beckley, WV	64,022	$724,359
Cumberland, MD-WV-PA	51,899	$28,797



5309 Fixed Guideway Capital Investment Program: New and Small Starts and Core Capacity Improvements
This discretionary competitive program has been amended under MAP-21 and now provides funding assistance for the construction or extension of fixed guideway systems, or for capital projects which will expand the core capacity of an existing fixed guideway corridor. Fixed guideway systems include rapid rail, commuter rail, light rail, hybrid rail, trolleybus (connected overhead), cable car, passenger ferries, and bus rapid transit. Under the Small Starts program, corridor-based bus rapid transit systems that emulate fixed guideway systems, such as defined stations, traffic signal priority, and short headway, are included. WVU's PRT system is also included in such programs. MAP-21 authorizes $1.9 billion in funding for Section 5309 for each FY 2013 and FY 2014.

5310 Enhanced Mobility for Seniors and Individuals with Disabilities Program
This formula program provides funding assistance for eligible recipients toward the provision of public transportation for seniors and individuals with disabilities. MAP-21 changes the distribution of these funds, as no longer is a single apportionment going to each state for distribution. MAP-21 distributes these funds specifically for large urbanized, small urbanized, and rural areas, and expands the eligibility of these funds to be used for operating assistance. Sixty percent of funds are apportioned to Designated Recipients of UZAs population greater than 200,000; 20 percent are apportioned to states for UZAs of population 50,000 to 199,999; and 20 percent are apportioned to states for rural areas. At least 55 percent of funds must be used for projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable. Such services are most often provided by non-profit agencies. Remaining funds may be used to meet ADA requirements, improve access to fixed-route service and decrease the reliance on paratransit, or alternatives to public transportation that assist in meeting the needs of seniors and individuals with disabilities.

MAP-21 authorizes $255 million in FY 2013 and $258 million in FY 2014. As the only large urbanized area in West Virginia, Huntington was apportioned $243,516 in section 5310 funds for FY 2013. The state of West Virginia was apportioned $1,138,462 in section 5310 funds for small UZAs, and $962,314 for rural areas (FTA, 2013b).

5311 Formula Grants for Rural Areas Program
This program provides funding assistance for the provision of public transportation services in rural areas (population less than 50,000). Funds may be used for capital, operating, planning, job access and reverse commute, and State administration expenses. Eligible sub-recipients include State and local government authorities, Indian Tribes, private non-profit organizations, and private operators of public transportation services. MAP-21 maintains the requirement that at least 15 percent of Section 5311 funding be dedicated for the development and support of intercity bus services, unless the State can certify that intercity bus services in the State are being adequately met.

MAP-21 authorizes $600 million in FY 2013 and $608 million in FY 2014 for Section 5311 funding, which represents a substantial increase in Section 5311 funding over previous authorizations of nearly 30 percent by 2014 (APTA, 2012). However, MAP-21 significantly changes the formula by which Section 5311 funds are apportioned. Three takedowns to the total allotment are included: the Rural Transportation Assistance Program (RTAP), the Tribal Transit Program, and the Appalachian Development Public Transportation Assistance Program. Added to the total is 16 percent of Section 5340 Growing States and High Density States funding.

1933

Wayne Works builds a steel bodied short bus.

Beyond these takedowns and additions, the distribution formula for Section 5311 funding has also changed. 83.15 percent of funds are apportioned on the basis of population in rural areas and rural land area, while an apportionment for non-urbanized vehicle revenue miles and an apportionment for population of low-income individuals residing in non-urbanized areas is added. In FY 2013, West Virginia was apportioned $7.7 million in Sections 5311 and 5340 funding (FTA 2013).

5311(b) Rural Transportation Assistance Program (RTAP). The Rural Transportation Assistance Program (RTAP) remains unchanged under MAP-21. This program provides funding to states to assist in the design and implementation of training and technical assistance projects, research, and other support services for transit providers in rural areas. Section 5311(b) funds serve as a takedown from the total Section 5311 funding program; MAP-21 authorized $20 million for 2013 and 2014 toward RTAP. Funds are distributed by formula, where each state first receives $65,000, each U.S. territory receives $10,000, and the remaining balance is allocated by formula that accounts for the non-urbanized population of each state. For FY 2013, West Virginia was apportioned $163,667 for RTAP funding (FTA, 2013c).

5311(c) Appalachian Development Public Transportation Assistance Program. MAP-21 created a new funding program within Section 5311 that serves as a takedown of the overall 5311 funding program. The Appalachian Development Public Transportation Assistance Program was created to provide additional funding to support public transportation in the Appalachian region. Thirteen states are included as being within the Appalachian region as defined by the Appalachian Regional Commission (ARC), a federal-state partnership that serves to promote the economic vitality of the region. All 55 counties in West Virginia are included as part of this region. Section 5311(c) funding can be used for public transportation projects and services consistent with the overall Section 5311 funding program.

MAP-21 authorizes $20 million in FY 2013 and in FY 2014 for the 5311(c) program. The formula for distribution of these funds to States in the ARC region is borrowed from the Appalachian Regional Commission Code, Section 9.5(b), which states that:

"Allocations will be based in general on each state's remaining estimated need to complete eligible sections of the Appalachian Development Highway System as determined from the latest available cost estimates for completion of the System. Such cost estimates shall be produced at approximate five year intervals. Allocations shall contain upper and lower limits in amounts or percentages to be determined by the Commission and shall be made in accordance with legislative instructions." (ARC, n.d.)

In FY 2013, West Virginia was apportioned nearly $1.9 million in section 5311(c) funds (FTA, 2013c). The distribution percentages and funding totals for each State included in the Appalachian Development Public Transportation Assistance Program (ADPTA) are listed on the following page.

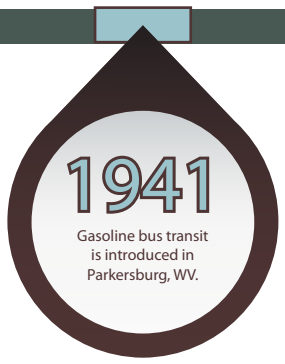
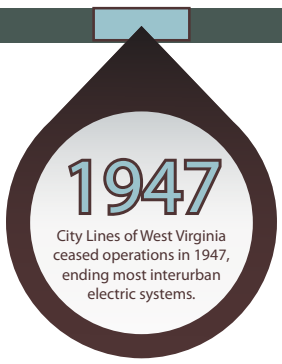


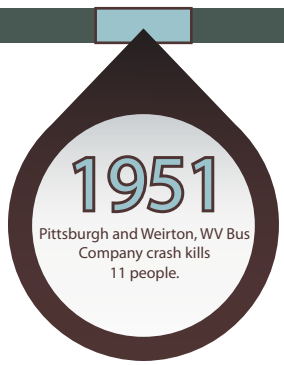
Table 4: ADPTA Funding and Apportionment

ADPTA State	FY 2013 Funding	ADHS Apportionment Factors
Alabama	$4,990,000	25.00%
Georgia	$590,816	2.96%
Kentucky	$1,760,472	8.82%
Maryland	$634,728	3.18%
Mississippi	$253,492	1.27%
New York	$199,600	1.00%
North Carolina	$1,447,100	7.25%
Ohio	$962,072	4.82%
Pennsylvania	$4,778,424	23.94%
South Carolina	$199,600	1.00%
Tennessee	$1,107,780	5.55%
Virginia	$1,147,700	5.75%
West Virginia	$1,888,216	9.46%

5329 PUBLIC TRANSPORTATION SAFETY PROGRAM

MAP-21 establishes a Public Transportation Safety Program to develop a framework for monitoring the safety of public transportation systems. FTA is required to issue a National Public Transportation Safety Plan, which includes safety performance measures and goals. States with rail fixed guideway systems are required to establish a State Safety Oversight (SSO) program. The SSO operates independently from the rail system and is authorized to enforce Federal and State safety laws. Section 5329 funding is derived from the .5 percent takedown of 5307 funding, and is apportioned to states by formula. Illustrative apportionments to states for the State Safety Oversight Program have also been identified for FY 2013, and West Virginia's apportionment is set at $209,007.





5337 STATE OF GOOD REPAIR PROGRAM

Under MAP-21, the State of Good Repair formula funding program replaces the discretionary funding Section 5309 Capital Investment Program. This program funds projects toward the replacement and rehabilitation of fixed guideway systems to good repair. This includes and is limited to rapid rail, commuter rail, light rail, hybrid rail, monorail, automated guideway, trolleybus (with overhead connector), aerial tramway, cable car, inclined plane, passenger ferries, and bus rapid transit. Funds are apportioned to UZAs with fixed guideway systems that have been operating for seven years or more. MAP-21 requires that 97.15 percent of the total funding apportionment be dedicated to UZAs with "High Intensity Fixed Guideway" systems, and the formula is based on previous funding levels, vehicle revenue miles, and total directional route miles. The remaining 2.85 percent is dedicated for "High Intensity Motorbus" systems, and the formula is based upon vehicle revenue miles and directional route miles. For the State of Good Repair Program, MAP-21 authorized $2.1 billion in FY 2013 and $2.2 billion in FY 2014. In West Virginia, the Morgantown UZA was apportioned $959,307 in FY 2013 toward its Personal Rapid Transit System (FTA, 2013d).

5339 BUS AND FACILITIES FORMULA GRANTS

MAP-21 creates the Bus and Bus Facilities Formula Grants to replace the Bus and Bus Facilities discretionary funding program, which was also previously part of Section 5309 Capital Investment discretionary program. This program funds projects which replace, rehabilitate, and purchase buses, related equipment and bus facilities. Eligible recipients include States and Designated Recipients who operate fixed-route bus systems; eligible sub-recipients include public agencies or non-profit organizations who provide public transit targeted for population segments defined by age, disability or low income.

MAP-21 authorized $422 million in FY 2013 and $428 million in FY 2014 for Section 5339. Each State receives $1,247,500 and each territory receives $499,000; the remainder of funds is distributed by formula to UZAs based on population, vehicle revenue miles, and passenger miles. In FY 2013, the Huntington, WV UZA was apportioned $233,395. For small UZAs of population 50,000 to 199,999, the State of West Virginia was apportioned $674,483 (FTA, 2013e).

WEST VIRGINIA STATE FUNDING

In West Virginia, public transportation is administered by the Division of Public Transit, a unit within the West Virginia Department of Transportation (WVDOT). The Division of Public Transit was created under Chapter 17, Article 16C of the West Virginia State Code, and it is designated as the state agency responsible for receiving and administrating all federal and state programs related to public transportation (WVDOT, 2010). The Governor of West Virginia has also designated WVDOT as the administrator and recipient of FTA funding programs. West Virginia has a statutory provision for the formation of Urban Mass Transportation Systems, §88-27 of the West Virginia Code, which authorizes such systems to issue revenue bonds and receive public funding (WV Legislature, 2011).

FUNDING

In fiscal year 2011, West Virginia allocated $2.8 million toward public transportation, which translated to approximately $1.50 per capita (AASHTO, 2013). This money was funded through the state's general revenues and was used only as a match for FTA grants. Funding levels are determined by the Governor's annual budget, passed by the state legislature who can increase or decrease the funding levels, and then signed into law by the Governor. All state funding for public transportation is distributed on a discretionary basis; the state does not currently have any formula funding programs in place.

West Virginia state funding is divided into two programs to match up with FTA funding programs. In FY 2011, $1.7 million went toward Operating Assistance to Rural Transit as matching funds for FTA Section 5311. The Division provides funds for operating assistance to only rural transit programs at a 50 percent state and 50 percent federal matching ratio when funds are available, and makes no distinction between operating and administrative expenses. Also in FY 2011, $1.1 million went toward Statewide Capital Discretionary as matching funds for FTA Section 5309 grants. Both urban and rural systems are eligible to receive these matching funds. In a few cases, WVDOT has provided the entire local share. Capital assistance is provided at a 20 percent state and 80 percent federal ratio.

Because local matching funds are so scarce, the Division has provided most of the matching Section 5311 funds for both operating and capital assistance since 1980 (WVDOT, 2010). This includes funding for the Mountain Transit Authority (Fayette, Greenbrier, Nicholas and Webster Counties), the Potomac Valley Transit Authority (Grant, Hampshire, Hardy, Mineral, and Grant Counties) and the Preston County Rural Transportation Program (Preston County) (WVDOT, 2010). These dollars are assigned to areas of the state that do not have the local resources available to come up with local matching funds for FTA operating assistance. Since FY 2000, Tri River Transit (Lincoln, Logan, Mingo and Boone Counties) and the Little Kanawha Bus (Calhoun, Jackson and Roane Counties) have received state funding as part of their FTA Section 5311 local match. In FY 2002, Bluefield Area Transit (Mercer and McDowell Counties) began receiving state assistance, and in FY 2006 Country Roads Transit (Randolph and Upshur Counties) was added (WVDOT, 2010). Other systems receiving state transit assistance include Wayne X-Press (Wayne County) and Here and There Transit (Barbour County). In addition to the state funding received for matching FTA funds, rural systems may also derive local matching funds from a variety of sources, including levies, county commissions, coal severance taxes, city governments, unrestricted federal funds and in-kind match (WVDOT, 2010).

Because state funding for public transportation is determined on a discretionary basis, WVDOT has identified a set of criteria for determining the distribution of funds (WVDOT, 2010). The first priority is to continue funding to existing systems operating where demand for public transportation exists but local resources are limited or unavailable. The second priority is to fund capital projects for existing systems. This includes fleet replacement, expansion, and facilities construction or renovation. The third priority is for new rural transportation systems.

MAP-21 expands the list of potential sources for local matching funds toward FTA funding programs. In most cases, local matching funds of 20 percent for capital expenditures and 50 percent for operating assistance are required. The expanded list includes (FTA, 2012):

- Non-government sources other than revenues from providing public transportation
- Revenues derived from the sale of advertising and concessions
- An undistributed cash surplus, a replacement or depreciation cash fund or reserve, or new capital
- Amounts appropriated or otherwise made available to a department or agency of the Government (other than the DOT)
- Amounts received under a service agreement with a State or local social service agency or private social service organization
- Proceeds from the issuance of revenue bonds
- Funds from Section 403(a)(5)(C)(vii) of the Social Security Act
- Transportation Development Credits (formerly Toll Revenue Credits)

Any amounts expended by providers of public transportation by vanpool for the acquisition of rolling stock to be used in the recipient's service area, excluding any amounts the provider may have received in Federal, State or local government assistance for such acquisition, provided that the provider has a binding agreement with the public transportation agency to provide service in the relevant UZA.

WEST VIRGINIA DEMOGRAPHICS AND TRANSIT

West Virginia is a rural state by most definitions. West Virginia has 18 transit systems: one transportation management system in Huntington, 6 small urban systems, and 11 rural systems, with Beckley working on a designated recipient. Of the 55 counties in West Virginia, some form of public transportation is available in 33. Table 2 displays overall state operating statistics for West Virginia transit. Over 7 million passengers utilized transit in 2012. Map 1 shows each transit route throughout the state. As noted previously, each of these "systems" is separate and disparate, there is no central transit system in West Virginia.

Table 5: West Virginia Transit Operational Statistics (O'Connell, 2013)

Passengers	7,058,697
*Elderly	1,013,179
*Individuals with Disabilities	321,513
Vehicle Miles	11,577,406
Employees	
*Full Time	528
*Part Time	153
Operating	$40,108,555
*Federal Funds	$11,733,619
*State	$1,477,046
*Local	$20,937,079
*Farebox	$5,960,811

In West Virginia, "[m]any of the rural areas are not served by any traditional transit service, or only have limited demand-response service. Several crucial links are missing in the overall public transit network, including connections across state lines and between different transit services. In addition, running delays occur on several of the fixed route services, frequency on many routes is low and service on weekends is limited" (Baker, 2010). Maps 2-4 show seven regions of West Virginia and the transit routes within them. Dense areas of transit include the cities of Charleston, Huntington, and Morgantown. Other transit linkages are shown in the regions; however, the display can be misleading. The map shows all the transit routes taken, but does not show stops along those routes. Many of the transit lines have only one or two stops within dozens of miles of each other. As Baker suggests, the efficacy of these transit lines may also be questionable, as running frequency may be low and weekend service is not offered.

1970
KRT Levy Campaign "Don't let Buses Go Do

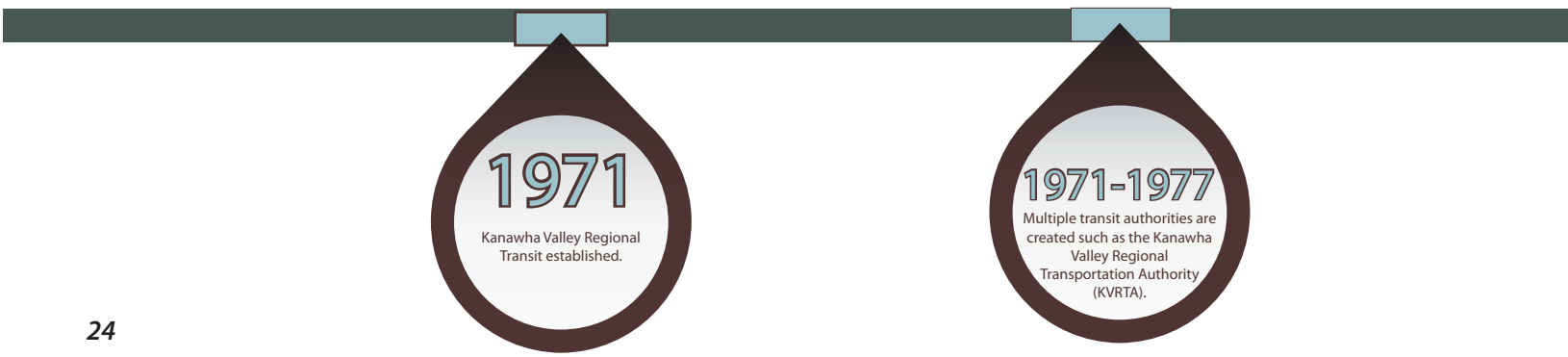
1971
Ohio Valley Bus Service begins to fail.

As noted in the economic impact literature review, commuting to work is the major reason for the use of public transit. West Virginia has areas of concentrated population and employment opportunities, which attract commuters into the area for employment and would necessitate a system of transit that would move people into areas of employment and out of the rural communities. However, a look at Census statistics on modes of transportation used for commuting shows that even in areas with relatively high concentrations of transit, commuting by transit is a very low percentage.

An analysis reveals that in the seven regions of West Virginia, commuting by transit is conducted almost exclusively in urban areas and the Eastern Panhandle, where commuters may ride the MARC trains to jobs in Washington, D.C. (See Appendix B for "Commuting to Work by Transportation Mode"). West Virginia still sees a large dependence on automobiles in many counties because people cannot access transit. This is a major concern in some of the poorer counties, where traveling by car to whatever work can be found may be economically infeasible. Students in the cities with universities are also placed at a major disadvantage.

Adding to these concerns is the number of households without a vehicle in West Virginia. A large percentage of households without even one vehicle live in areas that also have no access to transit. Maps 5-7 reveal this situation by region. A short visual comparison of transit lines and percentage of households without a vehicle reveals two facts: that areas with transit have a high percentage of households without a vehicle (mainly in the urban areas), but also that several extremely rural areas have large percentages of households without a vehicle. While the first fact is easy to explain, as most residents will choose transit rather than car ownership, the second fact presents a disturbing dilemma. In these rural areas those without a car and access to transit are twice displaced. They cannot get to the areas they need to go for work, education, or healthcare. This is a serious concern when dealing with the rural poor, and contributes to the extreme hardship faced by many in rural areas. Safe, efficient, and economical transit will be essential in assisting the rural poor out of poverty through access to employment, education, and healthcare.

Another concern with transit is planning for population shifts. People have been moving out of cities for decades, into suburban and rural areas. This trend has been established across the nation, as cities have noticed distinct population decreases, while the areas surrounding them, sometimes as far as an hour away, have noticed increases in population. However, transit lines and systems have not followed this pattern. Instead, transit lines have been stuck in densely populated, though smaller, urban areas, decreasing the number of people being serviced by transit and decreasing revenue for transit companies. One of the best ways for transit to adapt to this situation is to observe the population shifts that are occurring, and follow the population into the rural areas as much as is economically feasible. Map 8 shows the projected population change of all West Virginia counties between 2010 and 2030. The major growth areas are mostly the rural areas of the Eastern Panhandle, Greenbrier, Putnam, and the areas around the Morgantown-Fairmont area. Though many of these counties do have some form of transit, it is either on-demand or through-transit, without any designated stops. Population change should be taken into account when creating plans for transit lines.



As an example, Map 9 displays zip code areas in and around the cities of Huntington and Fairmont. As can be seen from these maps, the major inner city areas of both cities are steadily losing population. But each of these areas tells a different story about transit. In Huntington, net population loss has been in the thousands, while the areas around the city, including Barboursville and towns along the county lines, have grown by hundreds. However, as can be seen from the map, almost all the transit stops are in the city limits of Huntington. They are not following to the zip code areas where people are moving. In Fairmont, we see the city center losing population, and again the surrounding areas growing. However, here a more positive occurrence is playing out. Transit lines and stops are following the population, most notably to the suburbs and the northwest corner of the county. This improves the prospects for transit in rural counties, and is necessary to attract and keep riders. Some economic connections do exist between urban areas as well. Cabell County is connected to Kanawha via a morning/evening route designed to transport state government workers. The route makes one stop in Putnam County, but the rest of the county is not served by transit, preventing workers without a car or personal transportation from obtaining lucrative jobs in West Virginia's two major cities.

LIVABILITY IN WEST VIRGINIA

The way people live is also an important piece in the transit system. In West Virginia 48.4 percent of public transportation users are from owner-occupied housing units, with the remaining 51.6 percent renters. Half of West Virginians do not own their own homes, and a large percentage of the other half most likely has high mortgage payments. This consumes a great deal of a household budget. Five percent of the users had no vehicle available with 1, 2, and 3 or more vehicles available making up 25.20, 46.10 and 31.70 percent of the sample. This shows a high number of people who could be taking transit are instead relying on more vehicles, creating a burden on household budgets, increasing traffic, and increasing safety hazards.

5329 PUBLIC TRANSPORTATION SAFETY PROGRAM

The H+T Location Affordability Index shows that West Virginia residents spend a large portion of their income on transportation (Center for Neighborhood Technology 2013). It shows that even areas with public transit are considered inefficient and provide inadequate access to jobs and services. Overall, public transportation options in the state are poor or nonexistent. Further analysis shows that regions without public transportation are at a disadvantage to regions with similar household incomes that have public transportation options. For example, Raleigh County has very limited transit options and devotes 36.38 percent of their household income to transportation costs. However, households in Kanawha County spend an estimated 31.88 percent of their income on transportation. This is due in large part to the fact that Kanawha has an accessible public transit system extending from Charleston and throughout the county which makes it possible for the residents to pay less for access to their jobs and services. Transportation and housing costs as a percentage of income for each region and county are shown in Table 3 on the following page.

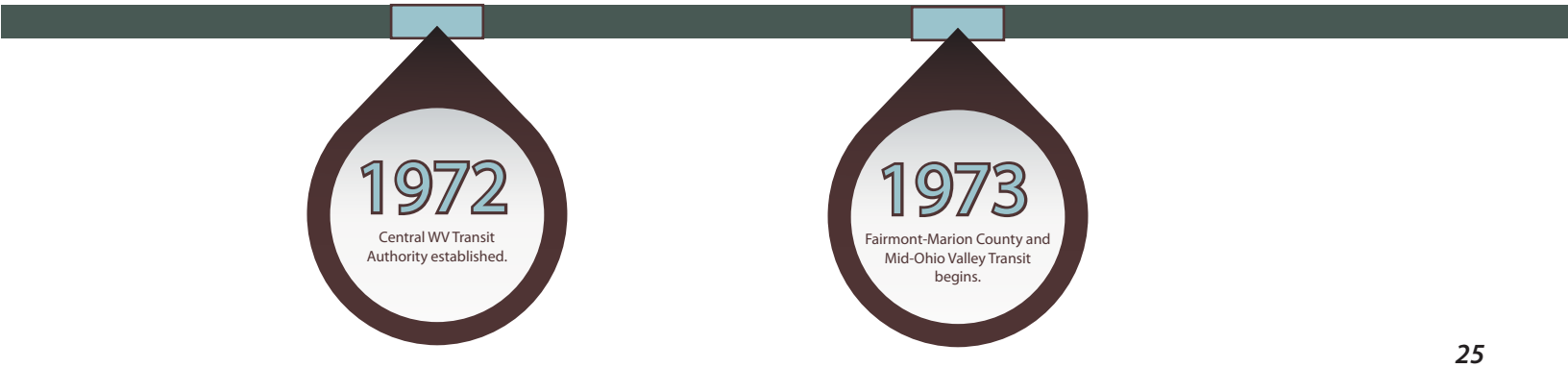
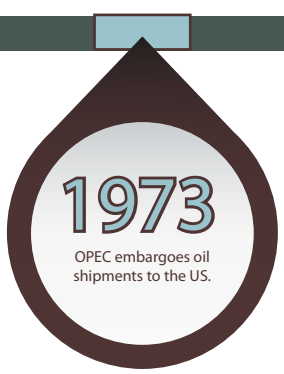
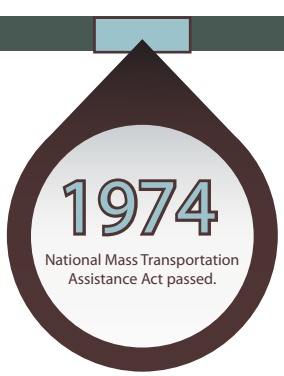


Table 6: Location Affordability Index for Select West Virginia Counties and Cities

	Household Income	Household Size	Commuters Per Household	Transportation Costs
Marion County				39.16%
Fairmont, WV	$35,209	2.38	0.99	39.16%
Hancock County				34.83%
Weirton, WV	$38,279	2.24	0.91	33.32%
Berkeley County				30.19%
Martinsburg, WV/Hagerstown, MD	$51,116	2.49	1.15	29.39%
Cabell County				35.67%
Huntington, WV/Ashland, KY	$35,473	2.37	0.93	37.85%
Kanawha County				31.88%
Charleston, WV	$41,483	2.34	0.95	33.30%
Mercer County				40.10%
Bluefield, WV	$33,049	2.39	0.86	41.04%
Raleigh County				36.38%
Beckley, WV	$38,023	2.31	0.87	36.38%

Raleigh and Putnam Counties are the only urban areas not served by a transit agency. An investigation of these counties shows that it is not just the existing transit services that are important, but also the access to transit and the connectivity that transit provides. Raleigh County, being an urban area, pulls workers into Beckley from Fayette County, a county that does have transit. Map 10 shows that fixed transit services do enter Raleigh County, but end at the Crossroads Mall. The route has very little impact from an economic development standpoint . A person cannot get to the Mall until 10:20 am and must depart at 1:55 to get home. A Fayette County resident cannot depend on transit to get to work.





Could one assume there are economic connections between urban areas? Does Kanawha County employ workers from Raleigh, Cabell and Putnam? Does Cabell County do the same? There is one transit corridor connecting the route between Huntington and Charleston. These questions warrant further discussions about the extent to which transit provides a higher livability rating and contributes to the economic development of an area.

TRANSIT ACCESS IN WEST VIRGINIA

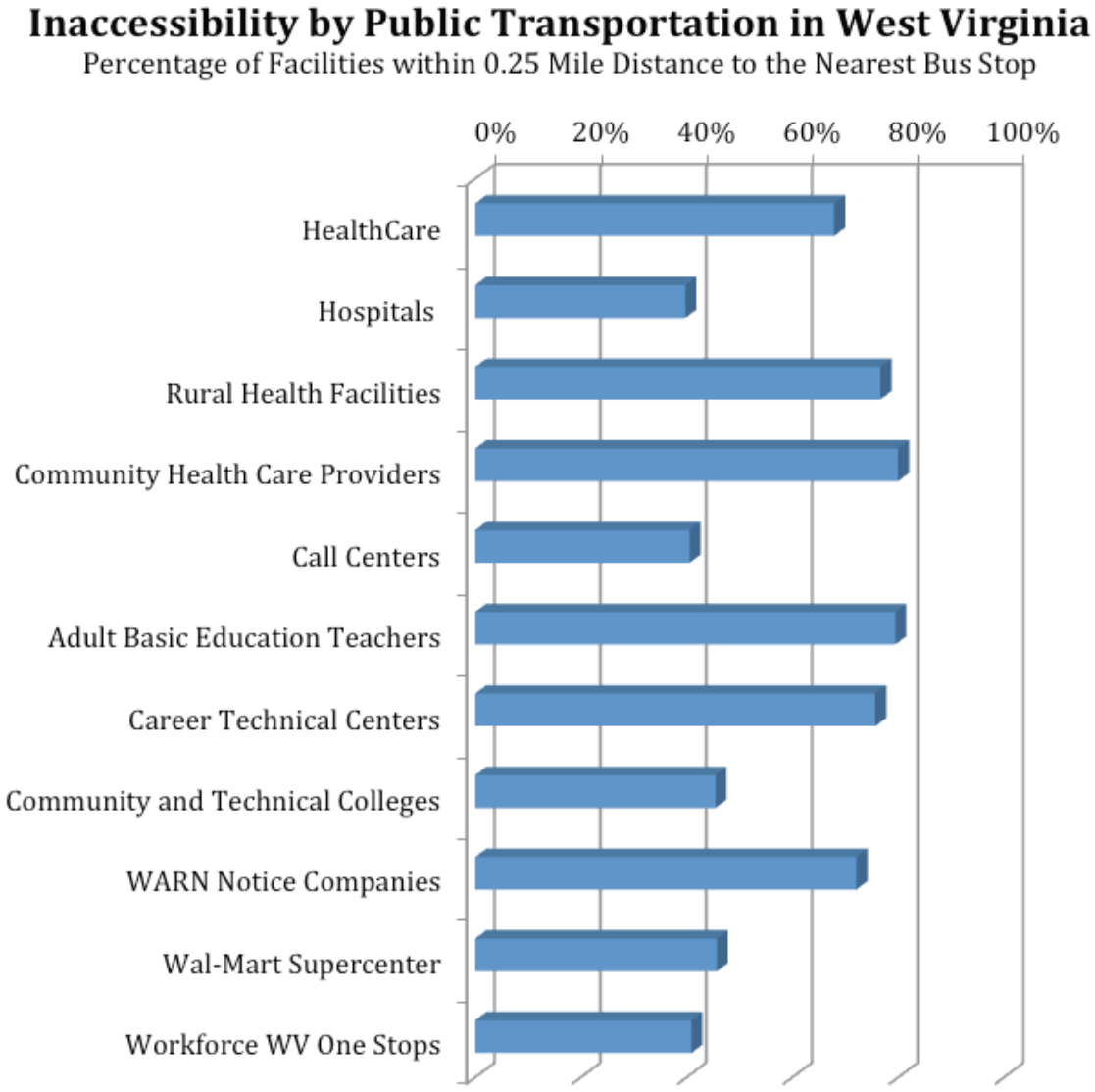
To answer the question "To what extent does transit provide access to jobs, education and health care in West Virginia?" an operational definition of "accessible" needed to be determined. A rule of thumb used in many transit studies has been a buffer zone of 400 meters, which is equivalent to a quarter-mile (Challuri, 2006; Foda and Osman, 2010; Murray and Wu, 2003; O'Sullivan and Morrall, 1996).

For each of the categories listed in Table 7 and Figure 1, RTI geo coded each establishment under each heading and analyzed the number of institutions that were not within a quarter-mile of a transit stop point. The street addresses were derived from various sources (websites and existing GIS data bases). The data was displayed with an overlay of the current transit routes. The buffer of 400 meters or quarter-mile was applied to the bus stop to determine if the site was or was not accessible by public transportation. However, the transit routes are not currently digitized. Fixed Route system bus stops were identified from web sites and data obtained from individual transit agencies. Some of these systems allow passengers to offload any time along the route, while others do not. For this purpose, only identified stops were geocoded using best available data. Figures could change if and when transit route coordinates are collected.

Table 7: Transit Inaccessibility for Select Economic Institutions

Facility	Total	Inaccessible	Percentage Inaccessible
HealthCare	1520	1032	68%
Hospitals	78	31	40%
Rural Health Facilities	60	46	77%
Community Health Care Providers	150	120	80%
Call Centers	37	15	41%
Adult Basic Education Teachers	224	178	79%
Career/Technical Centers	74	56	76%
Community and Technical Colleges	22	10	45%
WARN Notice Companies	43	31	72%
Wal-Mart Supercenter	35	16	46%
Workforce WV One Stops	22	9	41%

Figure 1: West Virginia Accessibility Chart



Using this data, it is particularly easy to see the difficulties that someone without a vehicle may encounter. A person without a vehicle lacks access to 79 percent of ABE facilities, 76 percent of Career and Technical Education centers, and 45 percent of West Virginia community and technical colleges if they also lack transit access (Map 11). This presents a major barrier to educational and earnings attainment that most people, especially the rural poor, simply cannot afford. Efforts need to be taken to ensure that these essential economic drivers are accessible, and transit is part of the solution.

The West Virginia Development Office (WVDO) advised geo-coding Contact Centers/Data Centers/Processing Operations. The nature of call center work consists of numerous entry level and part time employment opportunities at a pay scale that is attractive, but not at a level where the person may be able to purchase a vehicle. These employees will be more inclined to use public transportation when available. Map 12 shows the call centers in West Virginia by accessibility to transit. Sixty percent of call centers are accessible by transit, 41 percent are not. Employees of companies on a transit route cannot use the service if they work weekends or a second or third shift.

With a focus on transit and economic development, it was necessary to track the relationship between layoffs and transit. The Worker Adjustment and Retraining Notification Act (WARN) protects workers, their families, and communities by requiring employers with 100 or more employees to provide notification 60 calendar days in advance of plant closings and mass layoffs. This study analyzes WARN notices filed between December 2011 and September 2013 with the exclusion of coal mining facilities (the frequencies and rural locations of the mine notifications could skew the data). Map 13 shows locations where WARN Notices were filed, and their access to transit. Seventy-two percent of the companies that filed WARN notices were not served by transit. This is one of the clearer signs that lack of transit access by workers may affect retention and productivity and therefore the viability of businesses.

Map 14 reveals that when an employee is laid off, they may not be able to access Workforce WV One Stops to apply for other jobs, obtain retraining guidance or apply for qualified benefits such as Unemployment or Individual Training Account funds. Forty-one percent of Workforce WV One Stops are inaccessible by transit, making it difficult for those who may have just received a WARN notice to access the resources they need to continue supporting their families. This is an unnecessary burden on those that are already hurting.

Businesses want to be accessible by transit. Further analysis of the location of businesses shows that of the 51,880 businesses (which make 80 percent of total West Virginia businesses) located in counties with transit systems, 69 percent are located within 400 meters, or a quarter-mile, of a transit route, making them accessible by transit. Transit systems contribute to economic development, specifically along transit corridors, as they connect people with business /shopping centers and can establish business clusters near the route and particularly around station sites. While correlation does not equal causation, the data shows that in West Virginia, as with the nation, transit does have an effect on business decisions and economic development.

Healthcare facilities need to be accessible to both patients and workers. In West Virginia, 68 percent of healthcare facilities are inaccessible by transit. Even for those facilities that are accessible, many healthcare workers work long odd-hour shifts that do not match the schedules for transit lines. Employees may have a harder time than patients in access to healthcare facilities due to their schedules, the lack of transit, and the lack of alternative options that some patients have.

In a rural state such as West Virginia, many issues are in play when economic development is involved. Though there are many transit lines, there is no interactive transit system, and the transit lines may lack weekend and evening hours that many employers require. Many opportunities are limited in rural areas, where commuting is done almost exclusively by car, and transit lines are not even nearby. As more people shift into rural areas, it is clear that more than a simple overview of transit lines will be needed to ensure adequate business investment, accessibility to education and healthcare, and clear paths to employment.

1976

First bus equipped for special paratransit services is put in service by the Mid-Ohio Valley Transit Authority.

1976

Nick J. Rahall elected to Congress.

THE TRANSIT PROFESSIONAL PERSPECTIVES

The West Virginia transit professionals share a passion for their mission and goals but are unique in their respective locations, clients, funding, and personal background. RTI attempted to interview and capture individual perspectives on current and future issues with funding and operations, workforce, stakeholder relationships, and technology. Interviews were scheduled with each of the transit agencies, the ATU Local 1742 President/Business Agent, and the West Virginia Division of Public Transit Staff. All participants were given the discussion points in advance. The following is a summary of their remarks and do not necessarily reflect consensus between them.

FUNDING AND OPERATIONS

Transit operational decisions are based on funding and community needs. Currently, funding is driven from the FTA down. Federal audits never ask about service but focus on procedures and compliance. The professionals believe this is backwards. The agencies that serve an area know where people want to go, and should have a voice, if not the primary voice, in funding mandates. The goal is to get people where they need to go, on a schedule that meets their needs. Most of the transit agencies are struggling to maintain the status quo and find it is hard to plan because of the two-year funding limit.

There is a need to develop a statewide funding system for transit systems. The current system is supported by a patchwork of federal, state, county, and lottery funds. These entities are often at odds with each other. It also creates difficulties for transit agencies and companies to put together solid budgets and strategic plans for the future. Managers also expressed that they struggled to meet match requirements for existing grants and funding mechanisms. If FTA funding were increased, West Virginia would not benefit because the state cannot raise the match. Fare box revenues do not count as match. The common answer of "just raise the rates" for deficient budgets does not help promote the long-term advantages of using transit. Given these issues, operational decisions are entirely dependent on future funding mechanisms.

Maintaining current levels of service is the first priority. Most of the managers have plans to expand given additional funding, but have found themselves diverting or changing existing routes to serve a new demand. For example, in order to provide transit access to the Mountwest Community and Technical College in Huntington, a shuttle route in downtown Huntington had to be closed.

Safety and asset management will increase the burden on the state and local management. Responsibilities have increased with no additional means to fund staff. West Virginia Public Transit has now been given the responsibility of oversight of the West Virginia University Personal Rapid Transit system. Larger properties do not qualify for "State of Good Repair" funds. A lack of these funds will result in higher maintenance costs which will increase the operating budget because more mechanics will need to be hired to service vehicles. One manager stated, "If a property has 55 buses it will take 50 years to replace them on a rotating basis." All three of these are USDOT priorities that are unfunded burdens to state departments.

The managers support a transit system that would provide an easy route between major towns and rural areas. No seamless connections exist between transit systems. For example, while one can travel between Clarksburg and Pittsburgh using a bus, it would not be one bus but several, with varying stop locations and schedules that may not sync. Transit managers were very specific in the seamless transit connections they would like to see developed as "Transit Corridors", specifically:

- Wheeling, Pittsburgh, Charleston
- Clarksburg, Fairmont, Morgantown, Pittsburgh
- Wierton, Steubenville, Pittsburgh
- Hagerstown to Martinsburg

Not all people need to travel between traditional business hours. As mentioned in previous sections, 24/7 processing plants, health care, and retail establishments operate beyond9:00-5:00. Managers support increasing hours and destinations to serve employees who work alternative shifts. One manager stated she would like to have one very early route to get racetrack workers to the track in the predawn hours for safety reasons. Most of the workers bike or walk to the track in the middle of a dark highway, creating hazards not just for themselves but for drivers on the highway as well.
How much "public" will be in "public transit" in the future? Subsidized contracts with employers and trips for non-emergency medical treatment (NEMT) can return up to $.45 on the dollar. Will transit shift from a public, fixed route system to more of a curb to curb service? Managers predict there will be more curb to curb service and more operational contracts with employers and agencies.

Brokerage will be an issue. Brokers are intermediaries whose purpose is to match people who need transit with transit companies who need passengers. Though there are clear demand benefits, including just-in-time transit and improved access, supply constraints are a major issue. Brokers add an extra layer of negotiation to an already complicated supply chain, and funding remains an issue even if demand for transit increased. Transit managers are divided and uncertain as to whether brokerage is a benefit or a barrier. No one knows how it would affect the current lines or how it could be structured to make the most efficient use of funding and get people where they need to go. They are uncertain if a broker would be mandated to use public transit before other vendors and utilize the existing infrastructure in place that supports non-emergency medical transportation.

Coordinating Councils must be more effective in the future. Legislation should mandate cooperation between agencies that receive federal funding. Currently, multiple agencies provide busses that are utilizing the same routes, sometimes at the same time. One interviewee expressed that, "Any attempt to press the issue results in cries to their constituents, 'They are trying to take away your vans!' How can you tear down walls and silos and help agencies realize that transportation dollars saved could result in more money to pay for their core services?"

1978

Highest average cost of diesel fuel is $4.84 on July 17 due to the 1979 energy crisis.

1979

Fairmont-Marion begins service into Morgantown, WV.

A major finding of both the literature review and the interviews was the need to focus on Transit Oriented Development (TOD). Economic and community developers must consider transit as an economic development strategy for jobs, education, and healthcare. Services provided by non-profits and governments need to consider transit issues as well, as most of their services are geared towards the very same group that benefits most from transit. For example, many human services agencies are located in isolated suburban areas. The land price may be cheaper, but if clients cannot access the facility, the project does not add value to a community. Planners should review transit access as part of the approval process.

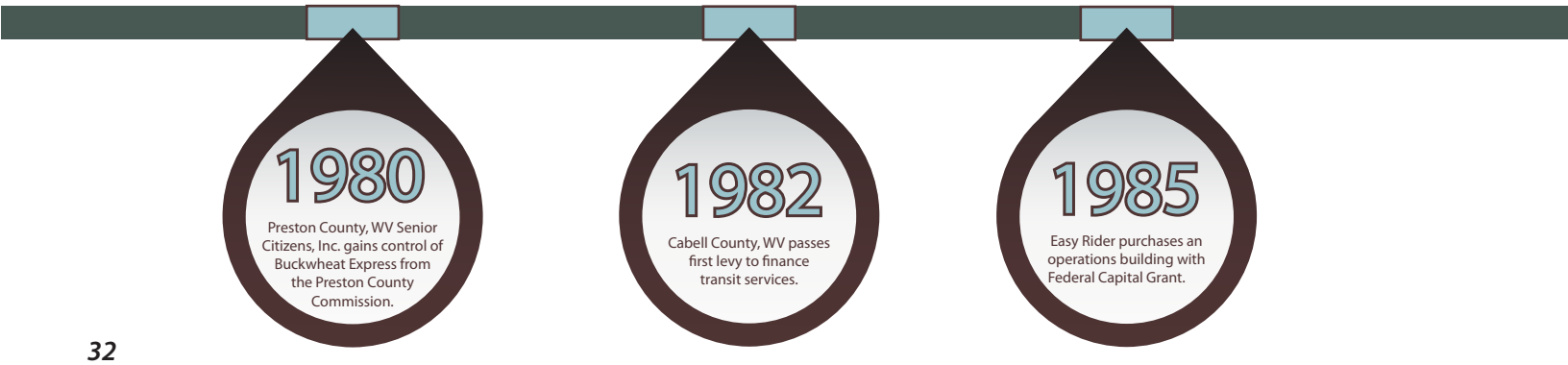
The ideal future of transit in West Virginia would include Fare Free transit, transit in every county in the state, increased connectivity between regions, and more employer involvement as partners in public transportation.

TRANSIT WORKFORCE

Transit systems in West Virginia employ an older workforce who are loyal and passionate about their work. Because of the age of the employees, transit operations in the future are going to struggle with workforce issues on federal, state, and local levels. Most properties rely on retired, part time drivers who love the work and enjoy the flexibility. Many retire from the transit agency and are recycled back into the workforce. The absence of benefits is not an issue because they have other sources based on past employment. One manager reported having an employee who is over 75 years of age. According to the manager, "My drivers don't quit, they just get sick." Annual physicals are now required and soon, 'fitness for duty" will become an issue.

Eventually the older population will no longer be available resulting in a greater number of unfilled job openings. Recruitment and retention of a skilled workforce will be increasingly more difficult as time goes by. Attracting new, younger drivers in the future will be a problem because of low wages and lack of health insurance benefits. The gas industry boom in West Virginia has created more opportunities for someone with a Commercial Driver's License (CDL) and diesel mechanics. The drug screen requirement will continue to increase operational costs. A large contingent of applicants fails drug testing or never come back when they are scheduled for testing. In some areas of the state the agency will incur $1,000 in drug screening costs to hire one applicant. Adding to these operational issues are MAP 21 changes that focus on safety and asset management. These changes will require the addition of administrative personnel to handle the federal reporting requirements, adding more costs.

At the moment, the retirement wave of full time mechanics and drivers in West Virginia seems to have passed. The looming issue is the pending retirement of state and system managers. On the local level, managers, financial staff, and dispatchers are closer to retirement than not and most agencies bemoan the fact there are few people in line to take over, and a supply of qualified transit managers are not graduating from any local programs because there are no local transit training programs. On the Federal level, West Virginia's regional office has suffered a large retirement wave and now is staffed with supervisors who are spread too thin and are inexperienced in FTA funding and disbursement. The implementation of MAP 21 is time consuming because of inconsistent and/or contradictory mandates from the FTA, and often seems fruitless. The office is more focused on procedures than transporting people. The West Virginia Division of Public Transit is facing the retirement of the Director. Property managers project a loss of continuity, vision, and funding if and when the state director retires. Many fear she will not be replaced by a transit professional but by a political appointee. These concerns are significant as without a dedicated and integrated workforce, transit cannot exist.



The West Virginia Division of Public Transit requested data on salaries from contiguous states. This is important as salaries and benefits attract the best workers to a particular area. Interviews revealed that transit agencies often pay minimum wage to workers and offer less than 50 percent benefits. The personnel directors from Kentucky, Ohio, Pennsylvania, Maryland and Virginia were contacted; given a list and brief description of positions in the department; and they were asked to provide salary information on comparable positions within their agency. The request asked that data be limited to bus transit and to exclude rail and ferry if possible. Agencies are organized differently and they may or may not have similar positions, and positions may be titled the same, but perform different duties. Some salaries were reported in ranges and some in averages. None were reported as actual by name. The WV Division of Personnel, Schedule of Salary maximum pay grade amount was used for each job classification within the Division of Public Transit. This pay schedule was effective as of February 1, 2009. These amounts do not represent actual salaries of the employees of the Division of Public Transit. Raw data may be found in Appendix B. The data is not an absolute comparison but is beneficial to compare West Virginia to other states. Figure 2 illustrates West Virginia salaries are most comparable to Kentucky, with the greatest variation appearing in the salary levels of the Directors.

Figure 2: Salaries of Transit Program Administrators in West Virginia and Surrounding States

1985
Potomac Valley Transit Authority headquaters flooded.

1989
The Weirton Transit Corporation is established by the City of Weirton in WV.

WTC
Weirton Transit Corporation

Training and development of existing staff is difficult for several reasons. Agencies are understaffed. Sending someone to training means someone is not on the job. No agency reported having surplus staff. Training requires travel, and West Virginia geography can force the trainee to spend as many hours en route as at the class itself. Sessions are usually scheduled on a one-time basis, leaving little flexibility to send part of the staff one day and the remaining staff the second day. Customer service and technology training will increase in importance as new technologies arise and the groups being serviced by transit changes. As the employees' technology literacy levels rise, on line training will become more of an option for the properties. Customer service training can be done anywhere at almost anytime. A clear priority list of necessary training and workforce characteristics needs to be evaluated to ensure a reliable and proper workforce.

STAKEHOLDERS

Transit stakeholders, both formal and informal, impact the operation and service, no matter how urban or rural, large or small. Formal relationships exist between the agency and the funding entities. Most of the relationships are in the form of a Board of Directors though some agencies have members from the community. A majority reported excellent to good relationships with formal stakeholders and also discussed how those positive relationships could be improved.

Formal training for board members and local elected officials was recommended. Some board members do not have the background, or buy into the mission, vision, purpose, and possibilities of transit. Formal training could help local transit agencies to improve service and ridership in the future.

Some agencies build their operating budget on contracted services. One manager asked a poignant question, "Where is the Public in Public Transit?" The question is very relevant since transit properties are trending towards establishing formal, contractual relations with outside agencies. Currently, West Virginia transit lines have contracts with employers such as Pilgrim's Pride, Ifocision, the FBI, and Rubbermaid. Wayne Express contracts with Wayne County schools to travel where large school busses cannot go and contract to provide alternative school transportation. Several of the agencies provide transportation of special needs adults to day facilities. Fairmont State University and West Virginia University have contractual relationships with Fairmont-Marion County Transit and Mountain Lines. Several other agencies are attempting to establish more formal arrangements. Currently, the higher education institutions want service provided as a matter of public service. The agencies see the need but face dilemmas in funding, administrative, and zero-sum concerns. When a request from a community college or university comes in to request expanded service, it means service needs to be cut in another part of the region.

Informal stakeholders are very important to transit managers. They use these relationships to make decisions about service and obtain support for levy votes, competitive grants, and matching funds. These informal stakeholders do not provide and do not direct financial support, but rely on transit to support their operations. The most frequently mentioned informal stakeholders include employers, public and higher education, health care providers, merchants, and senior citizen service providers.

Transit managers have a desire to initiate or improve relationships with economic and community development agencies, Chambers of Commerce, tourism agencies, public and higher education, and other agencies that need transportation providers. They believe they should be at the table as a partner. They described anecdotal incidents when they were not part of the discussion, but should have been:

- A community college expresses an interest in moving or expanding services.
- A company requests WVDO funding for relocation or expansion.
- A developer requests zoning permit to establish a mixed use development for seniors.
- HUD established a homeless shelter built in an area not served by transit.
- DHHR pays people as individuals to take family members to non-emergency medical visits.
- MPO planning.

TECHNOLOGY

Transit managers lack the resources, staff, capacity, and infrastructure to deploy technology that is available today, much less pilot and experiment with emerging technologies. West Virginia's technological infrastructure is weak. The weakness impacts all of the sectors in the state, not just transit. The interviews revealed that many transit lines are limited by the lack of broadband, lack of cell phone coverage, problems associated with the blackout zone surrounding the Greenbank National Radio Astronomy Observatory, and radio systems with spotty coverage and/or lacking interoperability standards. When asked about their technology wish list and realistic Intelligent Transportation (IT) goals for the next five years their responses were very similar across the state, taking into consideration the barriers described above.

Basic Technology There is a need to provide some agencies with basic technology assistance such as new computers, office networks, and radios, as well as training on basic software packages for data base management, word processing, and spreadsheets. The state is interested in having on line grant application capabilities but IT support at the state level has been a problem because of changes in personnel due to turnover.

Dispatch Software There is a need for dispatch software and training on the software. Several agencies still use paper to schedule appointed pickups. On line scheduling would also improve scheduling practice. PC TRANS software was specifically cited. On line scheduling dispatch software would be particularly valuable in the coordination of services. However the time and effort it takes to get cooperating agencies together, explaining the concept, and soliciting buy in is extensive and has broken down in the past due to lack of leadership and commitment. A champion may be necessary to achieve this particular goal.

Diagnostic Equipment Changes in diagnostic hardware and software makes it difficult for mechanics to stay current. The workers need training on how to use the hardware and software. There are a few properties that do not maintain their own maintenance and bus storage facilities.

Social Media Managers would like to increase their use of social media services such as Facebookand Twitter. The agencies are shorthanded and do not have the staff, expertise, or resources to deploy and evaluate social media's effectiveness as a marketing and promotion tool.

Vehicles The larger properties are interested in deploying green vehicles, hybrids, electrical vehicles powered by solar panels, and other alternative vehicle technologies. Critical infrastructure needs to be in place. Green bus washes have been installed using automated systems to wash and rinse a bus and reclaim and recycle water, mitigating damage to local aquatic systems.

Where is My Bus? Technology Managers discussed stand alone and integrated technologies in response to their wish lists and goals. Essentially, managers want the consumer to be able to access information in order to plan or monitor his or her schedule. If nothing else the integrated technology would save dispatchers hundreds of calls a day from people wanting to know the location of the bus. Before cell phones, few people would spend a quarter to call the transit authority to inquire about the location of their bus and when it would arrive at their stop. Today, the dispatch telephone number can be put on speed dials.

To this end, Global Positions Systems (GPS), smart phones applications and web page designs can be integrated to help the agencies get people where they need to go. Below is a summary of issues and concerns:
GPS Not everyone wants GPS on buses. Some board members do not support the technology because they see it as "Big Brother" and a violation of privacy. Most do favor use of the technology and aside from connectivity issues, they find it too expensive to maintain. Many agencies use ZONAR but are limited to Electronic Vehicle Inspection Report (EVIR) application. The GPS option is too expensive.

Web Design The general public is becoming savvier and more internet dependent. Static web pages no longer serve the needs of the consumer. Managers expressed a desire to have pages that meet those needs. Most do not have the staff or capacity to develop and or maintain web sites, however. Some contract with a third party to maintain static web pages, but these services can also be expensive. Several applications on the website would be extraordinarily helpful in satisfying supply and demand concerns, including:

- Real time data on bus location
- An interface to allow a person to plan a route, especially one that connects with other transit agencies to allow for transportation along Transit Corridors
- A user friendly, interactive training on how to ride the bus
- The ability to purchase advance fares on secure websites through credit card or a PayPal system
- Base web sites on Google Transit to encourage interoperability with other transit routes

Applications Managers hold varied opinions on whether Apps should be designed for smart phones or simpler cell phones. Geo-locating text notices to cell phones would be a simple solution to the "Where is my bus?" question, and would also apply to cell phones that are more affordable. All economic groups are using Apps more and more to identify their current locations and the locations of others. Smart phone Apps may be perceived also be perceived as more user friendly.

1998
Wayne X-Press established in Wayne County, WV.

1998
Mountain Line Transit Authority installs bicycle racks on buses.

Transit professionals need strategies that combine funding, workforce, and technological concerns. The future of transit will not occur in a static world, but a constantly evolving world, one in which transit managers feel they are chasing with no hope of either catching up or getting ahead. Funding is the primary source of stress, and the recommendations will be very concerned with funding concerns. However, many of these issues interact with each other, and the key to the future will be noting those interactions, bringing transit professionals to the table in strategizing, and incorporate a transit oriented approach to the development of the West Virginia economy.

STAKEHOLDERS' PERSPECTIVES

The literature review identified the major stakeholders related to a public transportation system, specifically toward the goal of economic development. The research questions related to stakeholders included:

1. To what extent are private employers investing in or willing to invest in public transit to help in recruiting and retention of workers?
2. How do post-secondary students perceive public transit and their access to education?
3. How do employers perceive the role of transit?
4. How do health care centers perceive the role of public transit in providing access for clients and employees?

On line surveys were developed, submitted and approved by Marshall University's Institutional Research Board. Surveys were distributed through the project steering committee members, West Virginia agencies including the Development Office, Dept. of Education and the Community and Technical College system. Two student workers were hired to recruit community college students to take the survey. Mountwest and Blue Ridge were selected because both of the institutions had just relocated to new buildings. The survey questions and response may be found in Appendix B. Respondents were asked about issues related to getting to work including availability of transit, the times of day in which they may have problems getting to or from school and work and the likelihood they would use public transit in the future to get to school or to work.

EMPLOYER'S PERSPECTIVE

The review of the literature featured examples of employers willing to invest in a transit infrastructure to support their organizations throughout the United States. When asked for referrals for one on one interviews, the West Virginia transit managers referred specific employers with whom they had both formal and informal relationships. Relationships described included ones in which:

- A transit agency and employer enter a contractual agreement such as the one between Pilgrim's Pride and Potomac Valley Transit Authority (PVTA). PVTA operates routes from Keyser, WV and Cumberland, MD, to transport workers. The cost is passed onto participating employees but the company absorbs the cost of empty seats.
- A situation where no formal contract exists but the transit agency and employer work together to meet the needs of both. PVTA and Newell/Rubbermaid work together to schedule fixed route, public service that meets the need of the production schedules.

- An Employer operates transit services directly. Snowshoe Mountain Resort has operated their own transportation system to help with recruitment of new workers and to improve attendance and productivity. They operated a "Housekeeping Express" from Marlinton, WV to the resort as well as providing transportation shuttles for employees from the bottom of the mountain to the top of the resort. The Housekeeping Express was discontinued due to decreased usage. The shuttle is available but many employees do not take advantage of the service.

Members of the steering committee suggested interviews with specific call/data centers with multiple locations in West Virginia as well as new and expanding companies in the state. The following employers were contacted for an interview to discuss their perspectives on the value of transit services to their organization. (* indicates those employers who responded). A summary of their perspectives follows.

- Aegis*
- IBEX Solutions*
- FBI
- Greenbrier Resort*
- Infocision
- Macy's*
- Mylan Pharmaceuticals
- Newell/Rubbermaid*
- Pilgrim's Pride*
- Snowshoe Mountain Resort*
- Quad Graphics*

The employers' perception of the value of transit services is the extent to which it assists in recruiting, retention, and attendance. The service helps offset the cost of workers commuting from long distances and it expands the radius from which employers can attract workers.

Transit schedules do not correspond with operations. Manufacturers, medical facilities, tourism destinations, and retail sectors do not operate on a Monday-Friday, 9-5 schedule. One employer stated that transit can only serve their workers six months out of the year because all employees rotate from day to night shift every six months. Transit only serves the day shift. Service industries such as call centers are customer based. If an employee is talking with a client, they cannot disconnect just because it is quitting time, and the bus does not wait. Weekend transit service is almost nonexistent so it eliminates transit as an option for many employees in health care, retail, and tourism.

The "I drive" culture also impacts transit usage. There is a perception of inconvenience on the transit system. To access employee transit, passengers may have to leave home a little earlier and arrive home later than they would if they drove their own cars. Given a choice between driving a personal vehicle or using public transit, West Virginians will opt to drive if they have access to their own or another's personal vehicle. Employers believe this is a major impediment to utilizing transit lines effectively.

The regions of the state with no transit have obvious obstacles, but the areas served by transit still have issues. Many employees live outside of areas where transit lines run, so even if transit is available in a county, people have no access to the transit lines. Spencer, WV is served by Mountain Transit Authority and eight of the ten largest employers of the county are located in Spencer, but for employees living outside of the area, the transit system is of no value. If they have personal transportation to a transit stop, they will proceed to their employer's location rather than engage transit services.

Personnel departments coordinate transit services for their employees. None of the employers participated in an IRS Qualified Transportation Fringe Benefit program, but they did express a willingness to review information about the program.

2000

Tri-River Transit and Here and There Transit are established.

2001

The Potomac Valley Transit Authority launches non-emergency medical transportation.

EMPLOYEE TRANSIT SURVEY

Employees of select West Virginia-based businesses were given the opportunity to respond to a survey regarding transportation to work. Of the 224 respondents, 131 individuals (58 percent) felt that transportation to work was limited due to where they live. The majority of the respondents (81 percent) rely on personal car/vehicle for transportation, with twelve, three, and two percent using family/friends vehicles, van/carpooling or bicycle/walking respectively. Only four respondents (two percent) use public transportation. Transportation becomes problematic for most respondents (18 percent) when getting to work between 7:30 AM to 8:30 AM or when going to medical appointments, dentist, or doctor visits (18 percent).

Further analysis and disaggregation was completed on the survey results as shown in Table 8. Ninety-four percent of respondents that are not limited by transportation rely on their personal car for transportation, while 63 percent of those that have limited transportation options use their own personal vehicle. The remaining respondents use their friends or family vehicles, car, or van pool, but very few (4 percent) use public transportation.

Table 8: Employee Transit Survey Results

Employees		Transportation Limited By Where You Live?	
How Do You Usually Get Places?	All Respondents %	Yes %	No %
Bicycle/walking	2	5	0
Family/friends' vehicle	12	22	5
Personal car vehicle	81	63	94
Public Transportation	2	4	0
Van/car pooling	3	6	1

HEALTH CARE

In the health care field, reliable transportation is a problem for the employees as 73 percent of health care employers reported that their employees do have a problem getting to work. With such a high percentage of transportation problems, public transportation options are lacking. Most of the employers do not provide subsidies or any transportation options for their employees and only 33 percent support the use of van pools and car pools. The willingness to support public transit for employees varies and is dependent on the availability of public transportation in the area. Overall public health facilities were supportive of public transit even though the majority do not have transit options available in their area. Very few employers are willing to provide vehicles to transport workers (approximately 34 percent). Eighteen percent would consider a contractual agreement with a taxi service and 25 percent agreed that they would consider having a contractual arrangement with a transit agency to provide service to their employees. Thirty-three percent agreed with the possibility of participating in an IRS Qualified Transportation Fringe Benefit Program. Eighty-three percent of employers agreed that more of their employees would use public transportation if it were available from the employees' homes and 58 percent felt that if schedules matched the work schedules their employees would utilize busses for their transportation needs. As for their patients, 42 percent of health care facilities felt that reliable transportation is a problem for their patients.

STUDENTS

Students at a variety of institutions were invited to participate in our survey regarding their transportation options and overall opinions on public transportation. The locations varied and out of 491 respondents, 89 percent (438 individuals) were community & technical college students, while the remaining students were enrolled at a career center, adult education program or other educational institution. Half of the students surveyed felt that transportation to school was limited, while half did not. The majority of the students use a personal vehicle (65 percent) or the vehicle of a friend or family (22 percent) for transportation. The need for transportation is particularly high for students getting to school between the hours of 7:30 AM and 5:00 PM, as a total of 41 percent claimed to have problems with transportation during these hours.
Transporting children to schools/daycare, medical appointments, visiting friends and family, attending events and holiday/weekend travel were issues for our respondents as well and 12, 19, 15, 17, and 17 percent of our respondents had issues with transportation for these events.

The students were surveyed to determine the reasons they do not use public transportation/busses to get to school or would be willing to use. Approximately 31 percent (30.86) strongly agreed that they would use busses if they knew what was available. If there were bus routes to their schools, 34 percent (34.34%) of respondents strongly agreed that public transportation would be a viable option. Other concerns included the need for stops for other tasks, longer wait times for pickups and an unreliable bus arrival time. Student survey results were disaggregated and analyzed for trends in responses. Forty-eight percent of students with limited transportation options use a personal car or vehicle for transportation, while 31 percent use a friend's or family member's vehicle. Surprisingly, 15 percent of those with limited options rely more on public transportation than car, van pooling, or walking.

Table 9: Student Transit Survey Results

Students		Transportation Limited By Where You Live?	
How Do You Usually Get Places?	All Respondents %	Yes %	No %
Bicycle/walking	2	3	1
Family/friends' vehicle	22	31	13
Personal car vehicle	65	48	82
Public Transportation	9	15	4
Van/car pooling	1	2	0

ADULT EDUCATION ADMINISTRATORS/TEACHER SURVEY

Adult Basic Education (ABE) teachers and administrators were surveyed during their 2012 annual meeting. The 79 respondents were from 35 different County Boards of Education and three represented the Community and Technical College System of West Virginia. The purpose of the survey was to determine the extent with which transportation was an issue with their students and to determine the participation rate of students to public transportation. The survey instrument may be found in Appendix B.

Eighty-six percent of the respondents indicated that transportation to their facility was an issue when asked "Is transportation to your facility an issue for your students/clients?"

When asked if their students received transportation assistance, 57 percent indicated they did, and the majority received that assistance from the West Virginia Department of Health and Human Services. Most received cash assistance. Other assistance methods included car repair assistance, bus passes, and insurance payments.

The survey indicated there has been very little interaction between school administrators and public administrators. The survey did not ask respondents to identify themselves, so it is not possible to determine the availability of public transit within their service area. When asked if they had met with representatives of public transit in the past 67 percent indicated that they have not.

Adults are permitted to ride school buses to and from school facilities. The survey indicated a low response rate for those who do ride the bus, and also indicated this information is not communicated. Several respondents wrote on their response sheet that "It is not allowed". Additional write in responses indicated that the public school schedules and ABE classes do not follow the same or compatible schedules.

The responses to "What is missing or needed to help get adults to and from ABE? " offered insight into the many obstacles that adults face as they try to improve their educational level:

- Scheduling: School buses don't run on schedule that is compatible to ABE schedules.
- Summer runs not available.
- Adults do not like riding a bus with younger students, feel "marked" as someone who dropped out of school.
- Public transit schedules are not conducive to ABE classes especially in the evening.
- Public transit does not always support routes that are close to ABE classes, some area have no public transit.
- Reimbursement: Gas is expensive and reimbursement comes from DHHR after the fact. Some adults have to take children to day care before classes and reimbursement only plays for travel to the school.

RECOMMENDATIONS

FOUNDATION RECOMMENDATION

Establish a dedicated source of funding for transit which at a minimum would be at a level adequate to match all the funding available from the Federal Transit Administration.

West Virginia needs a dedicated, sustainable source of funds before any of the recommendations offered in this study could be implemented. The dedicated funding would enable West Virginia to draw down federal matching funds currently unavailable and possibly provide a funding mechanism for the development and sustainability of transit corridors to connect major cities in the state. During the course of this study, transit professionals discussed the possibility of legislative appropriations, a dedicated tax on rental cars, and access to unspent West Virginia Flex Funds, each of which would require further investigation.

The subsequent recommendations are organized under the categories which have been used throughout this report: Operations, Workforce, Stakeholders, and Technology.

OPERATIONS

1. **Establish plan to develop and operate transit corridors in the state to support economic development**
   - The State should examine the demand for intrastate connectivity and determine the appropriate funding model for such systems. Route service areas and schedules should also be determined to connect people to employment.

2. **Add additional Local Education Agency (LEA) bus service routes to Adult Basic Education, Adult Career and Technical Education and Community College facilities in areas not served by public transit**
   - If adults cannot access educational facilities the skill level of employable West Virginians' will never improve. Every county in West Virginia has equipment, drivers and the funding for such is allocated by the West Virginia Public School Support Program. An examination of the cost of adding dedicated routes for Community College facilities, ABE and Career and Technical Centers using LEA equipment and drivers is warranted.

3. **Establish a WEST VIRGINIA Student Fare Card**
   - An electronic fare system, activated with tuition payments that would allow adult students to access public transportation, should be designed and implemented. Determine amount of student fee to be assessed to each student to pay for transportation.

4. **Complete a study for either Raleigh or Putnam County from an economic development perspective**
   - Because they have no transit system, either Raleigh or Putnam County would give planners a clean slate from which they could design a new system that prioritizes access to education, employers and health care in the design of schedules and routes and days of operation.

2007
PVTA launches Dial-a-Ride.

2007
Pilgrim's Pride contracts with PVTA to provide service for employers.

5. **Undertake an in-depth analysis of population change/shift and the relationship to transit operations**

   • Multiple sources of data including US Census estimates and projections should be combined with measures of migration to produce models of population change and transit ridership. Published studies and academic literature have endeavored to create models through regression analysis, but the development of a model that incorporates the unique features of the state is recommended. Once these estimations are produced, training on their application would also be necessary. Data and corresponding analysis would be valuable to establish priorities for transit corridors.

6. **West Virginia Transit should partner with a professional organization such as the Society for Human Resource Management (SHRM) and deliver a training session for employers on "Designating a Transportation Coordinator"**

   • The content of a training session could include information on the IRS Qualified Transportation Fringe Benefit Program, software tools, viability of work-centered van pooling, and information on guaranteed ride home insurance. Transit Training Partnership funds could be used.

WORKFORCE

1. **Pilot project between West Virginia Public Transit and WVDE**

   • The shortage of drivers and skilled mechanics will continue if not increase in the coming years. West Virginia County school systems or Local Education Agencies (LEA) employ both, with facilities in every county. Enlist the assistance of the WVDE Transportation Director and select a pilot site to determine opportunities and barriers to cooperation. Submit findings to appropriate legislative committees.

2. **Establish Transit Professional Certification**

   • Impending retirements of transit managers necessitates the design and implementation of a transit professional's certification to include transit specific knowledge, but critical soft skills in negotiation, legislative process, time management, etc. Recommend the program be offered for college credit under the Mountwest Community and Technical College Associate Degree in Transportation.

STAKEHOLDERS

1. **Educate elected officials**

   • A training program or overview of transit for inclusion in newly elected officials' orientation training should be developed and delivered. Training could be offered to newly elected Mayoral and County Commissioners, West Virginia House and Senate members assigned to relevant committees including Economic Development, Education, Finance, Health and Human Resources Seniors, and Transportation. An annual report "The State of Transportation in West Virginia" should be developed and presented to business, government and elected officials on an annual basis.

2009

Mountaineer Station intermodal transportation center is built and becomes free for faculty, staff and students at West Virginia University.

2010

KRT Levy passes with 80%+ approval rate.

2. Campaign for West Virginia Congressional support

- Coordination for transit systems is incredibly complex, and often overwhelms state resources. A unified national transit policy, complete with attributed federal funds, is necessary to encourage transit. West Virginia's congressional delegation should be lobbied to provide federal funds for the essential service of transit coordination.

3. Develop a training session for realtors on "The Use the Housing and Transportation Affordability Index (H+T)"

- This training would help realtors to understand the relationship between housing and transportation costs in order to determine which areas have high transportation costs and would be best served by additional or expanded transit routes. This effort would advance the concept of Transit Oriented Development (TOD).

4. Conduct a study on the impact of a Non-Emergency Medical Transportation (NEMT) Brokerage System on the Public Transportation's and Emergency Medical Services' infrastructure and workforce

- The West Virginia Bureau for Medical Services could save $26 million over four years. The Request For Proposal issued in October 2013 contains language that would prioritize the use of transit fixed routes but only 46% of heath care facilities are accessible by fixed route transit systems. Most of the growth of WEST VIRGINIA Public Transit has been the on-demand NEMT service especially in rural areas.

TECHNOLOGY

1. Digitize fixed routes

- Any integration of technology is dependent upon accurate, digitized information that must be updated in real time. Data should be supported by Google Transit.

2. Partner with County LEA to support GPS and AVL technology

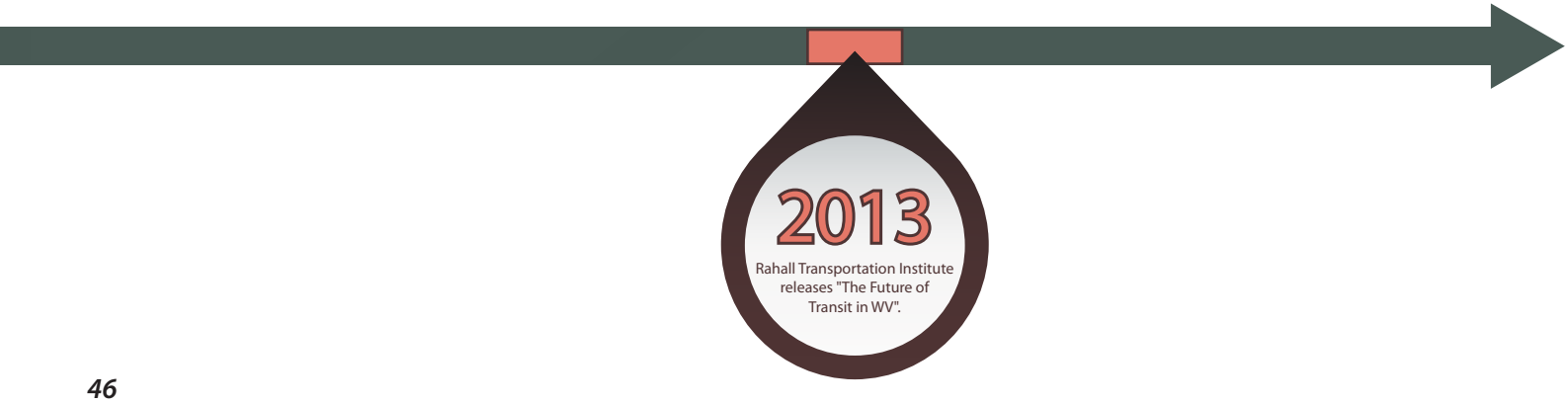
- As county school systems integrate GPS technology with school buses, there are opportunities to partner with transit systems to share in the license, as was demonstrated by KRT and Kanawha County Schools. RTI recommends the WVDE enter into conversations with West Virginia Division of Public Transit about future collaborations.

3. Form a cooperative to host and service web sites for transit agencies

- Smaller agencies do not have staff with the skill or time to maintain webpages with critical updates. Currently, smaller agencies are contracting with outside vendors. The formation of a cooperative between agencies would reduce the costs for the design and support of products and applications for the benefit of all. The deliverables could include but are not limited to the following:
  - Easy to read and use schedule smart phone apps
  - Video segments to teach people "How to Ride the Bus"
  - Website designs and hosting which are current and enable "Where is My Bus" applications.
  - Template design for schedules and information which would make it easier for a customer to develop trip plans within and/or beyond their immediate area. Standardized formats would enable passengers to move from one system to another.

4. Conduct pilot project to optimize existing technology with University transit users

- The project would harness the power of social media and applications through crowdsourcing data to test the impact of keeping transit users up to date on schedules and locations. The pilot would use a specially developed application and the users, known as "the crowd" could submit updates and location data which are then owned and utilized by the Transit authority to update other users.



BIBLIOGRAPHY

American Association of State Highway Transportation Officials (AASHTO). (2013). *Survey of State Funding for Public Transportation: FY 2011 Data.* Washington, DC.

American Public Transportation Association. (2007). *A Profile of Public Transportation Passenger Demographics and Travel Characteristics Reported in On-Board Surveys,* Washington, DC.

…(2012). Map-21 *Moving Ahead for Progress in the 21st Century: A Guide to Transit Related Provisions.* Washington, DC.

Appalachian Regional Commission (ARC). (2013, July 27). The ARC Code. Retrieved from http://www.arc.gov/publications/ARCCode.asp.

Arcury, T., Preisser, J., Gesler, W. and Powers, J. (2005). Access to Transportation and Health Care Utilization in a Rural Region. Journal of Rural Health, 21 (32), 31-38. Retreived from http://onlinelibrary.wiley.com/doi/10.1111/j.1748-0361.2005.tb00059.x/abstract.

Baker, M and LSC Transportation Consultants, Inc. (2010). Direction 2035: Long-Range Multimodal Transportation Plan for the Hagerstown/Eastern Panhandle Metropolitan Area. Retrieved from http://www.hepmpo.net/PDF/FINAL_HEPMPO_LRTP_6-1-2010.pdf.

Bel-O-Mar Regional Council and Interstate Planning Commission, (2012a). Transportation Improvement Program, Fiscal Years 2014-2017. Wheeling, WV. Retrieved from http://www.belomar.org/pdf/BOMTS_FY2014_FY2017_TIP_Final_Draft.pdf.

Bel-O-Mar Regional Council and Interstate Planning Commission, (2012b). Transportation Plan for 2035. Wheeling, WV. Retrieved from http://www.belomar.org/pdf/Transportation%20Plan%20for%202035.pdf.

Blumenberg, E. and Shiki,K. (2003). How Welfare Recipients travel on public transit and their accessibility to employment outside large urban centers. Transportation Quarterly, Spring 57 (2), 25-37.

Blumenberg,E. and Schweitzer, L. (2006). Devolution Transport Policy for the Working Poor: The Case of the US Job Access and Reverse Commute Program. Planning Theory and Practice, March 7 (1), 7-25.

Cabanatuan, M. (2013, July 3). Putting Brakes on Ride-Sharing Apps. San Francisco Chronicle Retrieved from http://www.sfgate.com/bayarea/article/Putting-brakes-on-ride-sharing-apps-3927193.php.

Centers for Disease Control and Prevention (CDC). (2012, August 2). Recommendations for Improving Health through Transportation Policy. Retrieved from http://www.cdc.gov/transportation.

Center for Neighborhood Technology (2012, February). Housing and Transportation Affordability Index Retrieved from http://htaindex.cnt.org/about.php.

Center for Housing Policy. (2012, October). Losing Ground: The Struggle of Moderate-Income Households to Afford the Rising Costs of Housing and Transportation. Retrieved from http://www.nhc.org/media/files/LosingGround_10_2012.pdf.

Challuri, S. (2006). *An Analysis of Public Transit Accessibility Using the Distance Constrained P-Median Problem Approach: Bus Stop Consolidation for the Capital Area Transit System of East Baton Rouge Parish, Louisiana*(Doctoral dissertation, Louisiana State University).

Community Transportation Association (2012, April). Profiles of Employer-Sponsored Transportation Programs. Retrieved from http://www.ctaa.org/webmodules/webarticles/articlefiles/ProfilesofEmployer-SupportedTransportationPrograms.pdf.

Community Transportation Association. (2012). Transportation to Work: Toolkit for the Business Community. Retrieved from http://web1.ctaa.org/webmodules/webarticles//anmviewer.asp?a=1442andz=75

Deka, D. (2002) Predicting Commute time of Non-Workers in the Context of Welfare Reform. Journal of Urban Affairs, July 24 (3), 333-352.

Faulk, D., and Hicks, M. (2010). The Economic Effects of Bus Transit in Small Cities. Public Finance Review, 38(5), 513-539.

Foda, M. and Osman, A. (2010) Using GIS for measuring transit stop accessibility considering actual pedestrian road network. Journal of Public Transportation 13 (4), 23-40.

Freemark, Y. (2010) Cars, Highways and the Poor. Dissent, Winter, 57(1), 10-13.

Federal Transit Administration (FTA). (2013a). FY 2013 Section 5307 and Section 5304 Urbanized Area Apportionments. Retrieved from http://www.fta.dot.gov/12853_14875.html.

… (2013b). FY 2013 Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Apportionments. Retrieved from http://www.fta.dot.gov/12853_14875.html.

… (2013c). FY 2013 Section 5311 and Section 5340 Rural Area Apportionments. Retrieved from http://www.fta.dot.gov/12853_14875.html.

… (2013d). FY 2013 Section 5337 State of Good Repair Apportionments. Retrieved from http://www.fta.dot.gov/12853_14875.html.

… (2013e). FY 2013 Section 5339 Bus and Bus Facilities Formula Apportionments. Retrieved from http://www.fta.dot.gov/12853_14875.html.

Harvey, T. N., Hathaway, W. T., & Melchiorre, M. (2002). Technology in Rural Transit: Linking People with Their Community (No. FHWA-OP-02-028).

Hess, D. (2005). Access to employment for adults in poverty in the Buffalo-Niagara region., Urban Studies, June 42 (7), 1177-1200. Hill, E., and Brennan, J. (2005). America's Central Cities and the Location of Work: Can Cities Compete with their Suburbs? Journal of the American Planning Association, 71 (4), 411-432

Kim, Q. (2012, December 26). Another Silicon Valley Perk: free shuttle service. Marketplace. Retrieved from http://www.marketplace.org/topics/tech/another-silicon-valley-perk-free-shuttle-service.

Kimly Horn and Associates, Inc. (2013). KYOVA Interstate Planning Commission 2040 Metropolitan Transportation Plan. Retrieved from http://www.wvs.state.wv.us/kyova/2040MTP/index.htm.

Kimley-Horn and Associates, Inc. (2009). Regional Intergovernmental Council 2040 Long Range Transportation Plan. Retrieved from http://www.wvregion3.org/Transportation/Long-Range-Plan.aspx.

LaValle, S., Lesser, E., Shockley, R., Hopkins, M.S., Kruschwitz, N. (2011). Big Data, Analytics and the Path from Insights to Value. MIT Sloan Management Review, 52(2), 21-31.

Lee, S. and Vinokur, A. (2007). Work barriers in the context of pathways to the employment of Welfare to Work Clients. American Journal of Community Psychology, Dec 40 (3) 301-312.

Litman, T. (2012). Evaluating public transit benefits and costs: A guidebook. Victoria Transport Policy Institute, British Columbia, Canada..

Lorion, A., Harvey, M. and Chow, J. (2013). Redesign of Curricula in Transit Systems Planning to Meet Data Driven Challenges. Unpublished paper submitted to ABG20 Committee on Transporation and Education and Training for publication and presentation at the TRB 93re Annual Meeting and Transportation Research Record.

Martin, W. and Taylor, B, (1998). Can Transportation Strategies help meet the welfare challenge? Journal of the American Planning Association, Winter 64(1), 15.

Mees, P. (2010). Transport for suburbia: beyond the automobile age. Earthscan, London, UK.

Metropolitan Atlanta Rapid Transit Authority (MARTA) Partnership Program. (2009). Employer Pass. Retrieved from http://www.itsmarta.com/employer-pass.

Morgantown Monongalia Metropolitan Planning Organization (MMMPO). (2012a). Draft 2040 LRTP Goals and Objectives for Policy Board Approval. Retrieved from http://www.plantogether.org/2012Dec/1%20-LRTP%20Goals%20and%20Objectives%20for%20Policy%20Board%20Approval%20(3).pdf.

… (2012b). Draft 2040 LRTP Planning strategies for Policy Board Approval. Retrieved from http://www.plantogether.org/2012Dec/2%20-LRTP%20Planning%20Strategies%20for%20Policy%20B o¬¬¬ard%20 Approval%20(2).pdf.

Multisystems, Inc. ,… (2000). Welfare to Work: Integration and Coordination of Transportation and Social Services, Transit Cooperative Research Program Report 64; TCRP http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_64-a.pdf Web Document 16, TRB (www4.national-academies.org/trb/crp.nsf), Federal Transit Administration.

Murray, A. T., and Wu, X. (2003). Accessibility tradeoffs in public transit planning. Journal of Geographical Systems, 5(1), 93-107.

Nationwide. (n.d.). College Student Spending Habits. Retrieved from http://www.nationwide.com/college-student-spending-habits-infographic.jsp.

Nation's Cities Weekly. (1996). Talihina takes it Workers to the jobs. 119(24), 11.

O'Connell, S. (2013, March 3). West Virginia Transit Operational Statistics. (D. Long, Interviewer)

Ong, P and Blumenberg, E., (1998). Job Access, Commute and Travel Burden among Welfare Recipients. Urban Studies. 35 (1), 77-93.

O'Sullivan, S. and Morrall, J. (1996). Walking distances to and from light-rail transit stations. Transportation Research Record, 1538, 19–26.

Partridge, M.; Ali, K.; and Olfert, M. (2010). Rural to Urban Commuting, Three Degrees of Integration. Growth and Change, June 41 (2), 303-335.

Redlener, I. Brito, A., Johnson, D., and Grant, R. (2006). The Growing Health Care Access Crisis for American Children: One in Four at Risk. The Children's Health Fund. Retrieved from http://www.childrenshealthfund.org/calendar/WhitePaperMay2007-FINAL.pdf.

Sanchez, T (2008). Poverty, Policy, and Public Transportation. Transportation Research Part A: Policy and Practice. June 42 (5), 833-841.

Slater, C. (1997). "General Motors and the Demise of Streetcars". Transportation Quarterly, 51 (3), 45–66.

Sluglines. (2013). "What Are Sluglines?" Retrieved from http://sluglines.com/.

Span, G. (2003, April). Paving the Way for Buses-The Great GM Streetcar Conspiracy Part 1- The Villians. Retrieved from http://www.baycrossings.com/Archives/2003/03_April/paving_the_way_for_buses_the_great_gm_streetcar_conspiracy.htm.

Stommes, E., and Brown, D. (2002). Transportation in Rural America: Issues for the 21st Century. Rural America, 16(4), 2-10.

U.S. Department of Transportation. (2009). Planning for transportation in rural areas. Retrieved from http://www.fhwa.dot.gov/planning/publications/rural_areas_planning/page03.cfm

US Environmental Protection Agency. (n.d.). Employer-Based Transportation Management Programs. Retrieved from http://www.epa.gov/oms/stateresources/policy/transp/tcms/emplyer_transmgt_prog.pdf.

Wang F. and Luo, W. (2005). Assessing spatial and nonspatial factors for healthcare access: towards an integrated approach to defining health professional shortage areas. Health and Place, June 11(2), 131-146.

West Virginia Department of Transportation (WVDOT). (2010). 49 USC Section 5311 State Management Plan.

West Virginia Legislature. (2011). Chapter 8. Municipal Corporations. Article 27. Intergovernmental Relations – Urban Mass Transportation Systems.

White, N. (2006), Transit Planning as a Vehicle for Successful Development. Journal of Housing and Community Development, 63(1), 28-31.

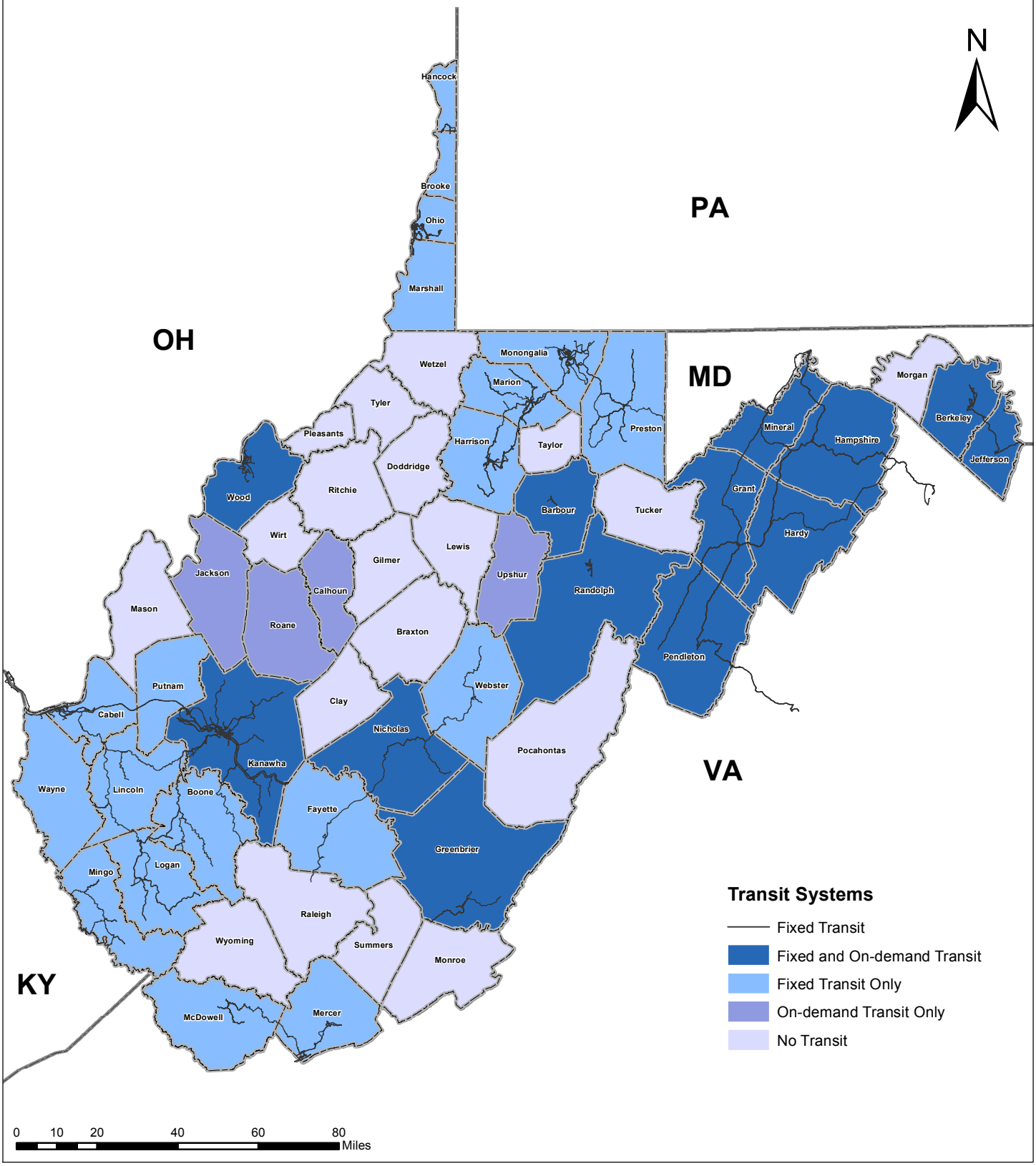
Wood-Washington-Wirt Interstate Planning Commission (WWWIPC). (2012). Transportation Plan Update 2035, Volume 1. Retrieved from http://www.triplew.org/lrp/2012/LRTP-FINAL.pdf.

Weisbrod, G. and Reno, A. (2009). Economic Impact of Public Transportation Investment. American Public Transportation Association, Washington, DC.

Timeline Documentation - Taken from various internet sites, data is not portrayed as a historical document.

Transit Systems

West Virginia

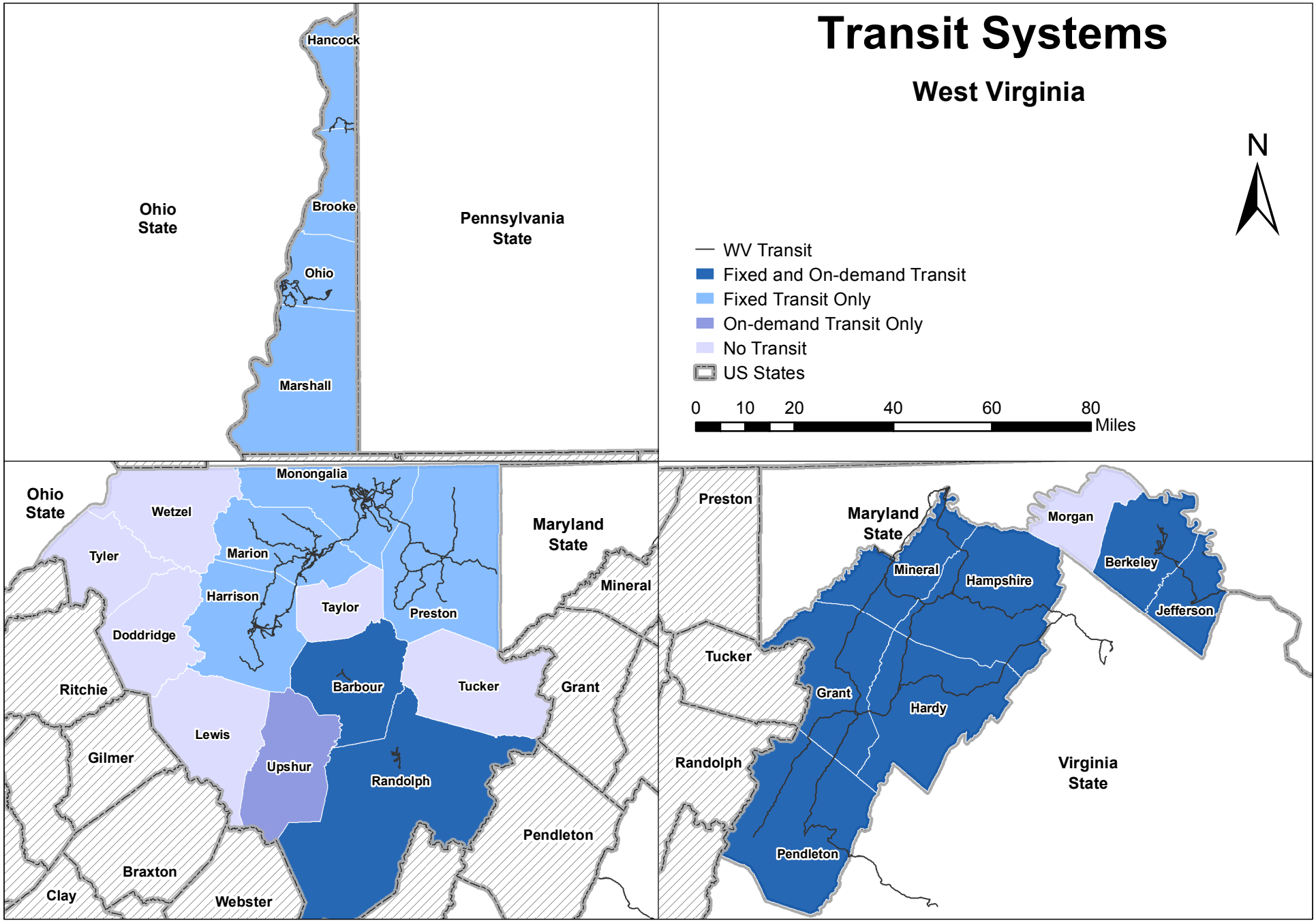


Source: Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Transit Systems

West Virginia



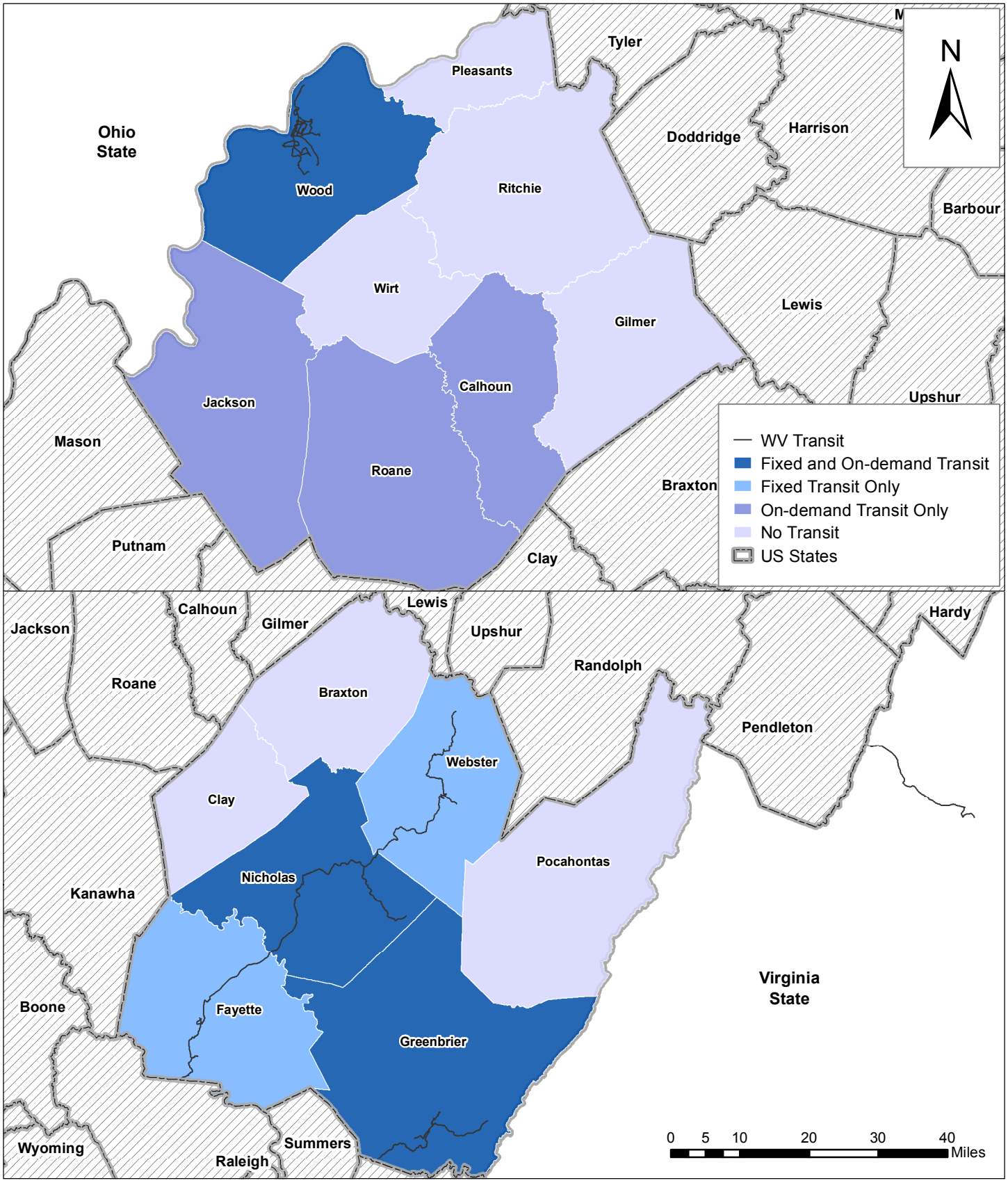
Source: Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 3

Transit Systems

West Virginia



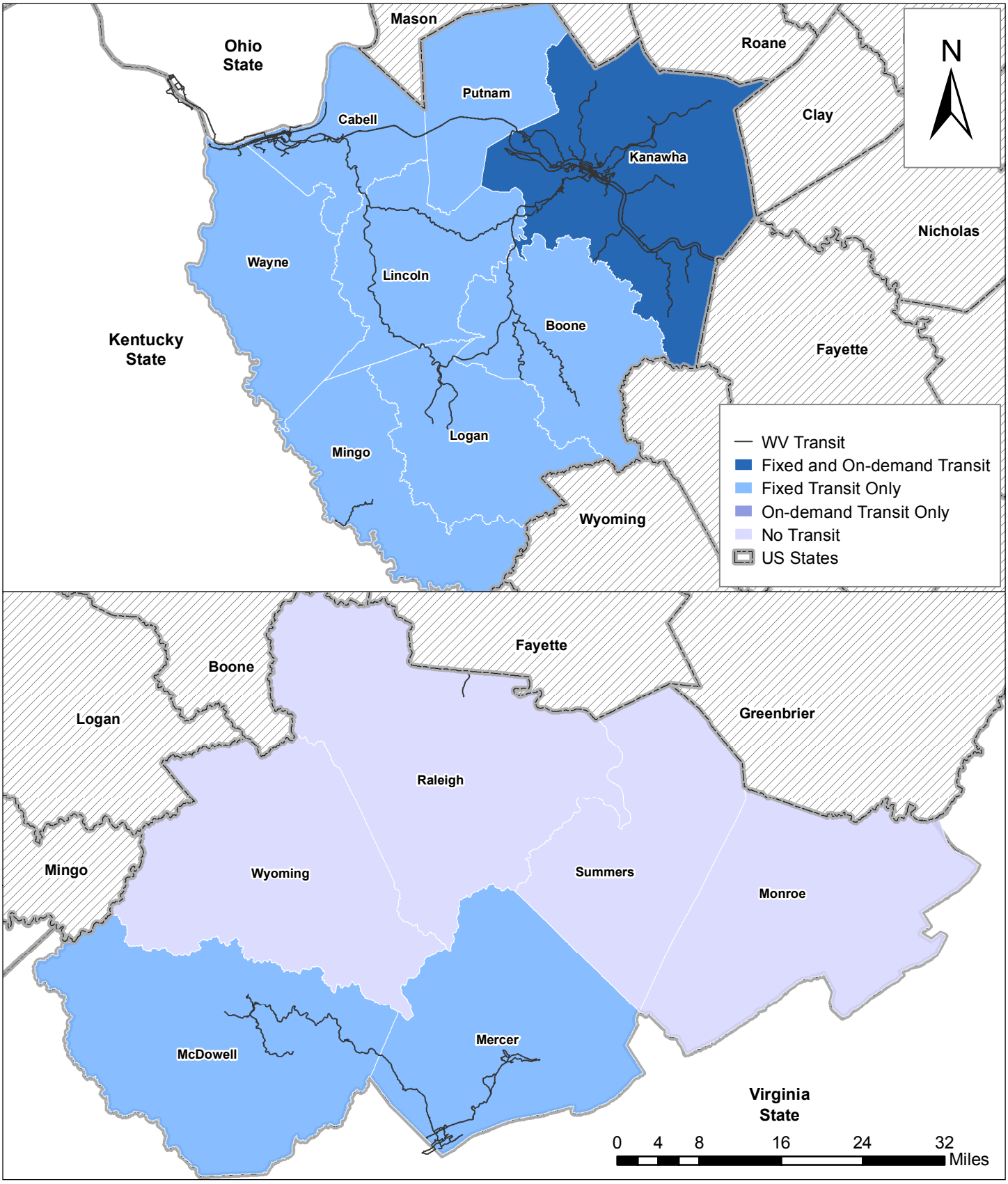
Source: Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 4

Transit Systems

West Virginia



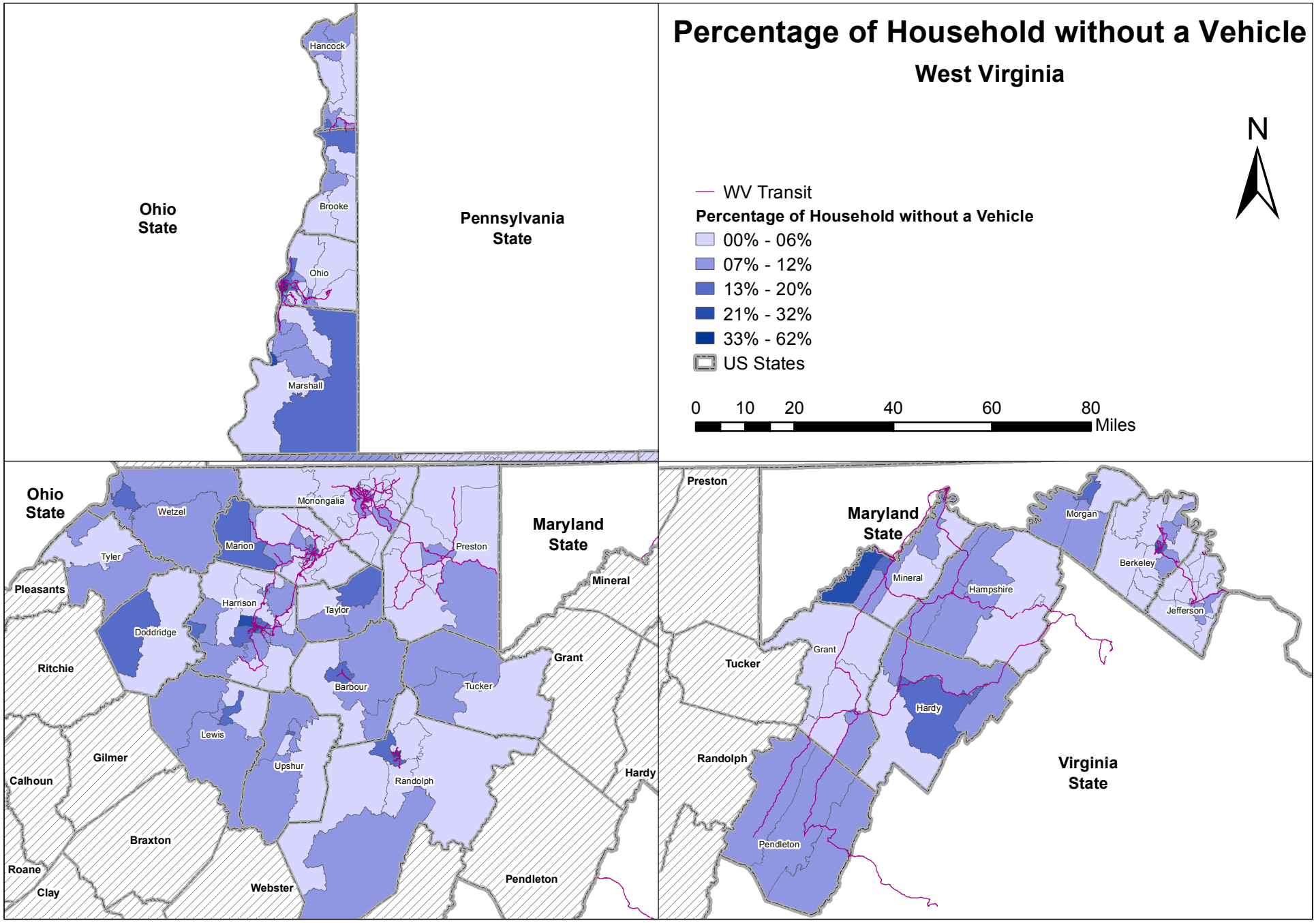
Source: Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 5

Percentage of Household without a Vehicle

West Virginia



Source: 2011 American Community Survey 5-Year Estimates

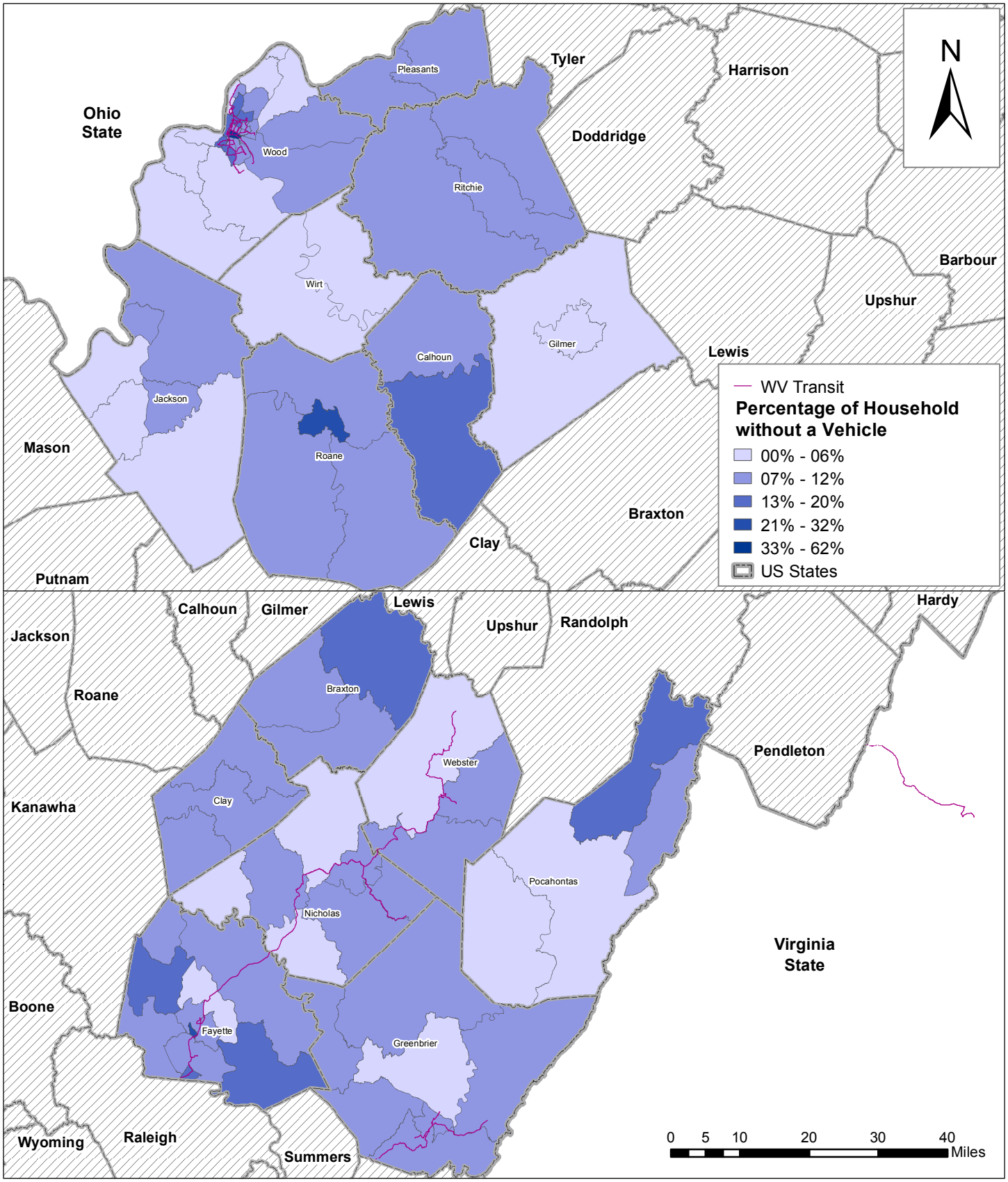
Note: Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 6

Percentage of Household without a Vehicle

West Virginia



Source: 2011 American Community Survey 5-Year Estimates

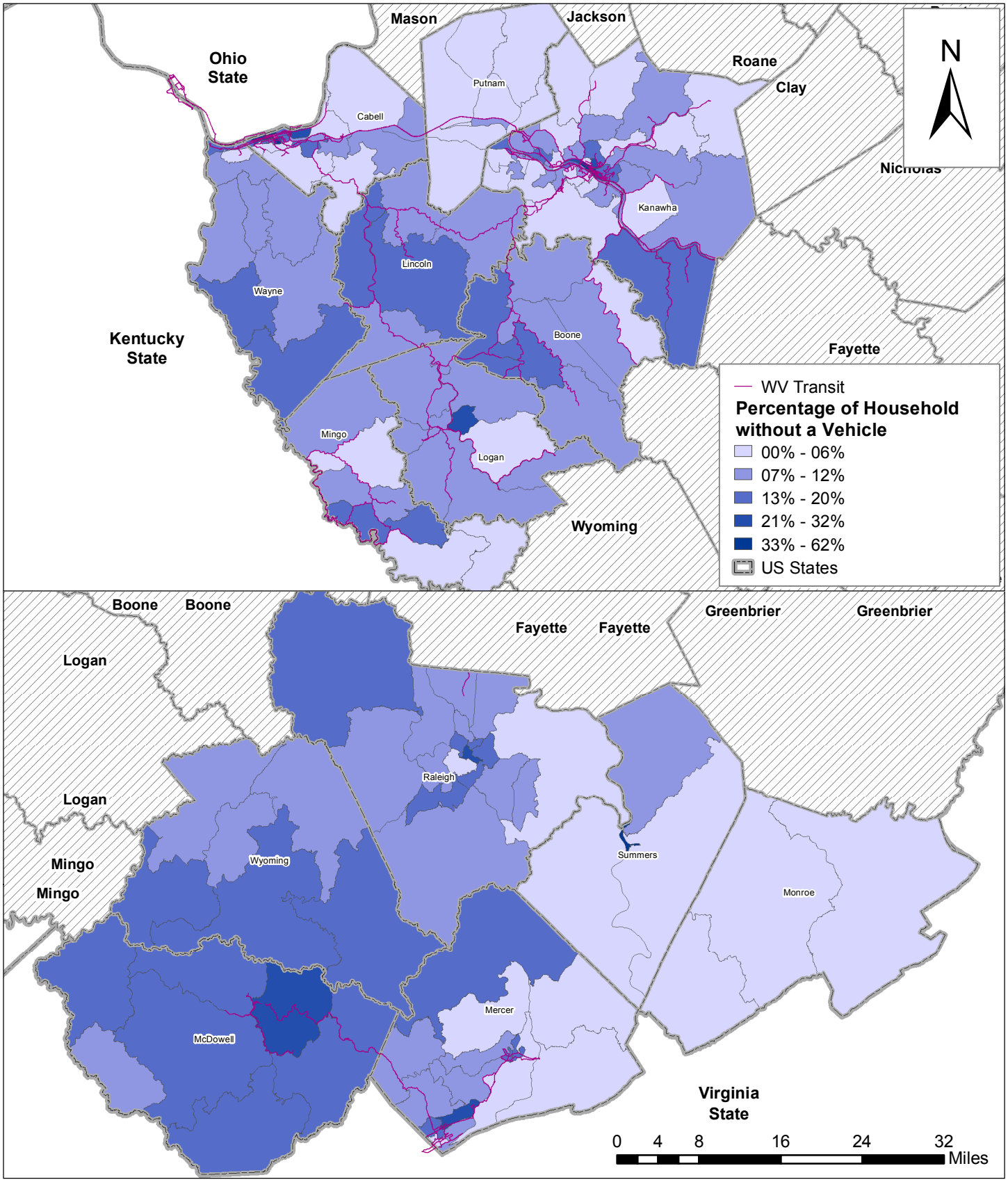
Note: Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 7

Percentage of Household without a Vehicle

West Virginia



Source: 2011 American Community Survey 5-Year Estimates

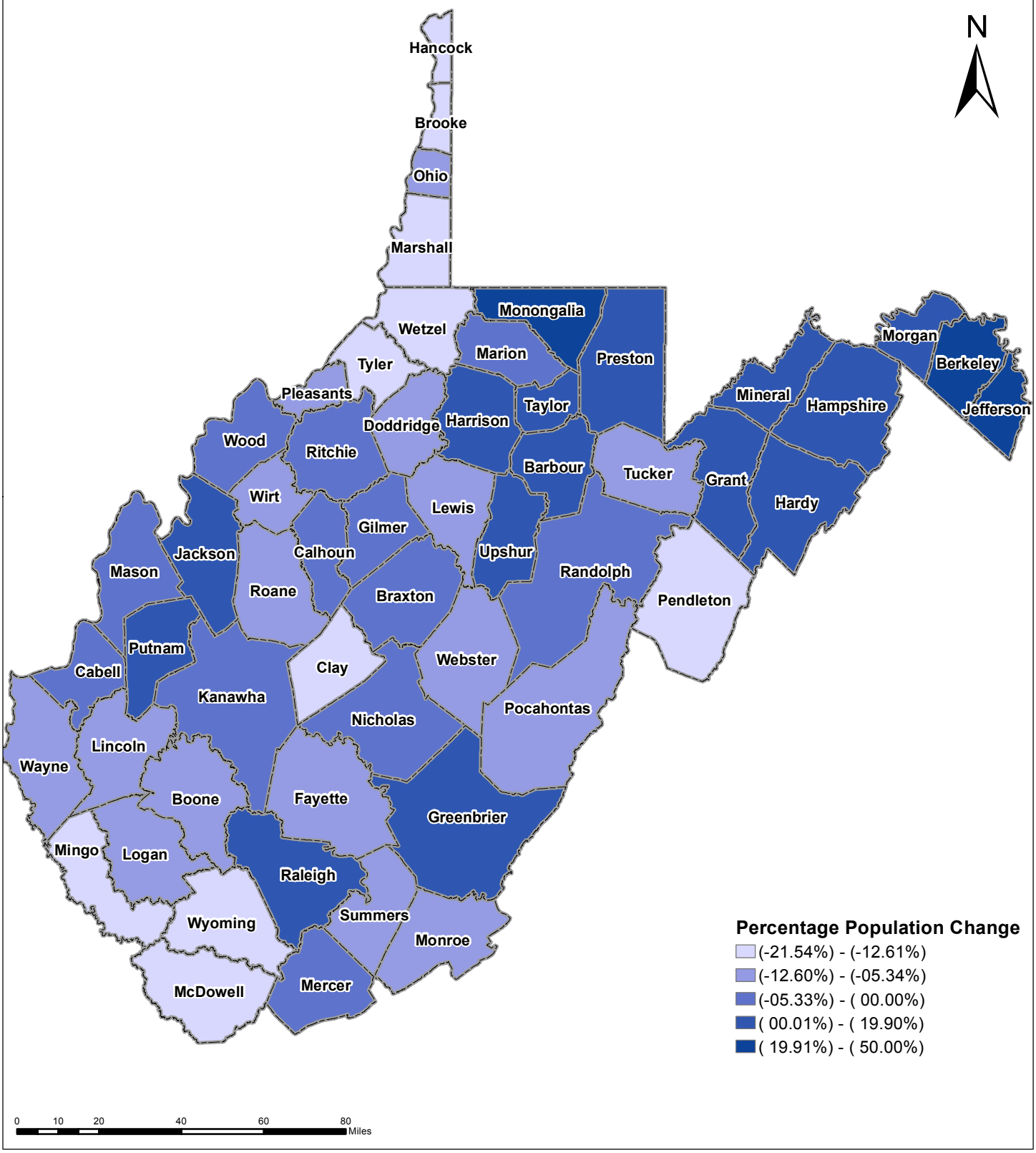
Note: Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 8

Projected Population Change

2010 - 2030



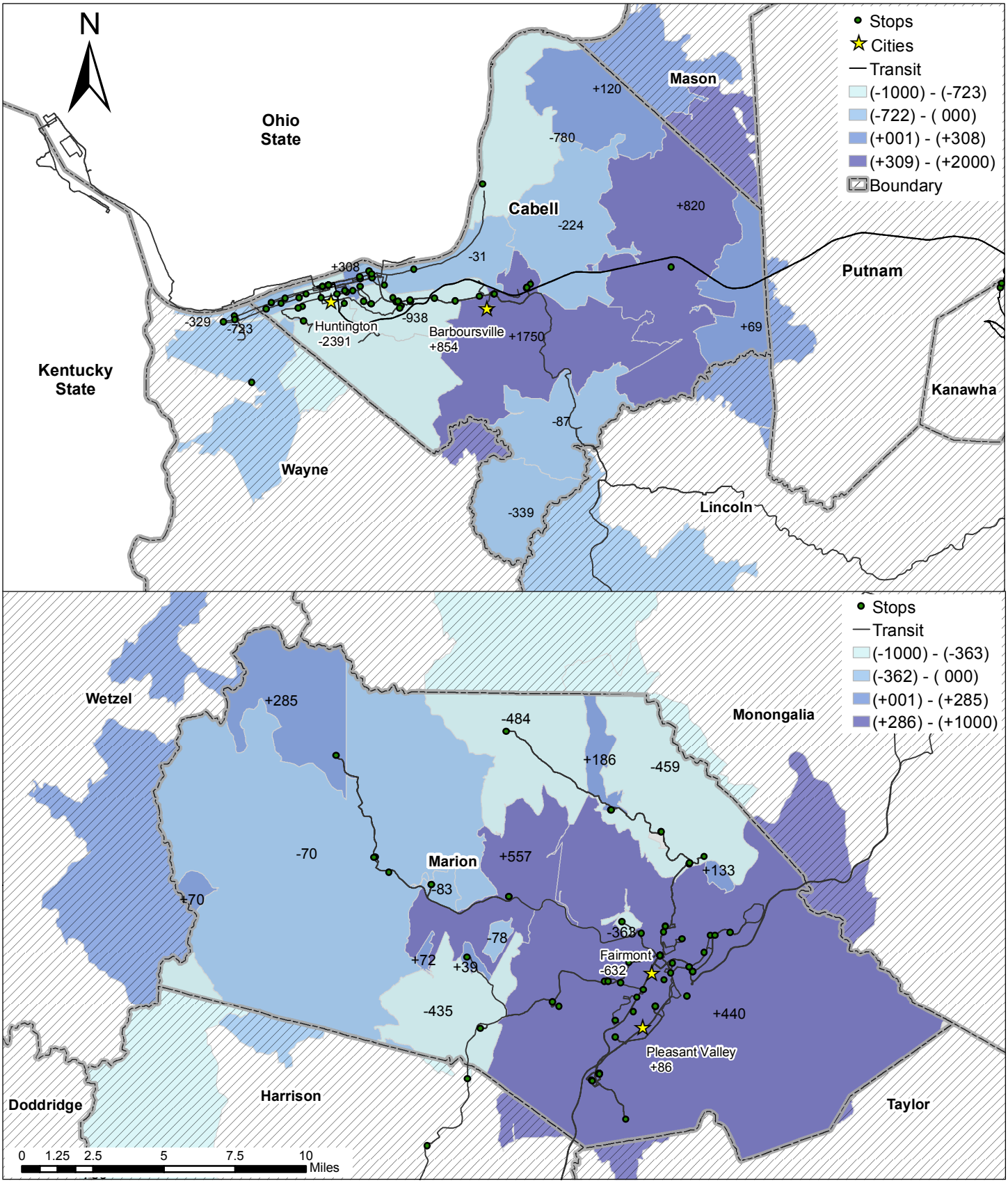
Source: Christiadi. "Population Projection for West Virginia Counties." Bureau of Business and Economic Research, College of Business and Economics, West Virginia University, Morgantown, WV (August 2011).

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 9

Population Change by ZipCode Tabulation Area

2000 - 2011



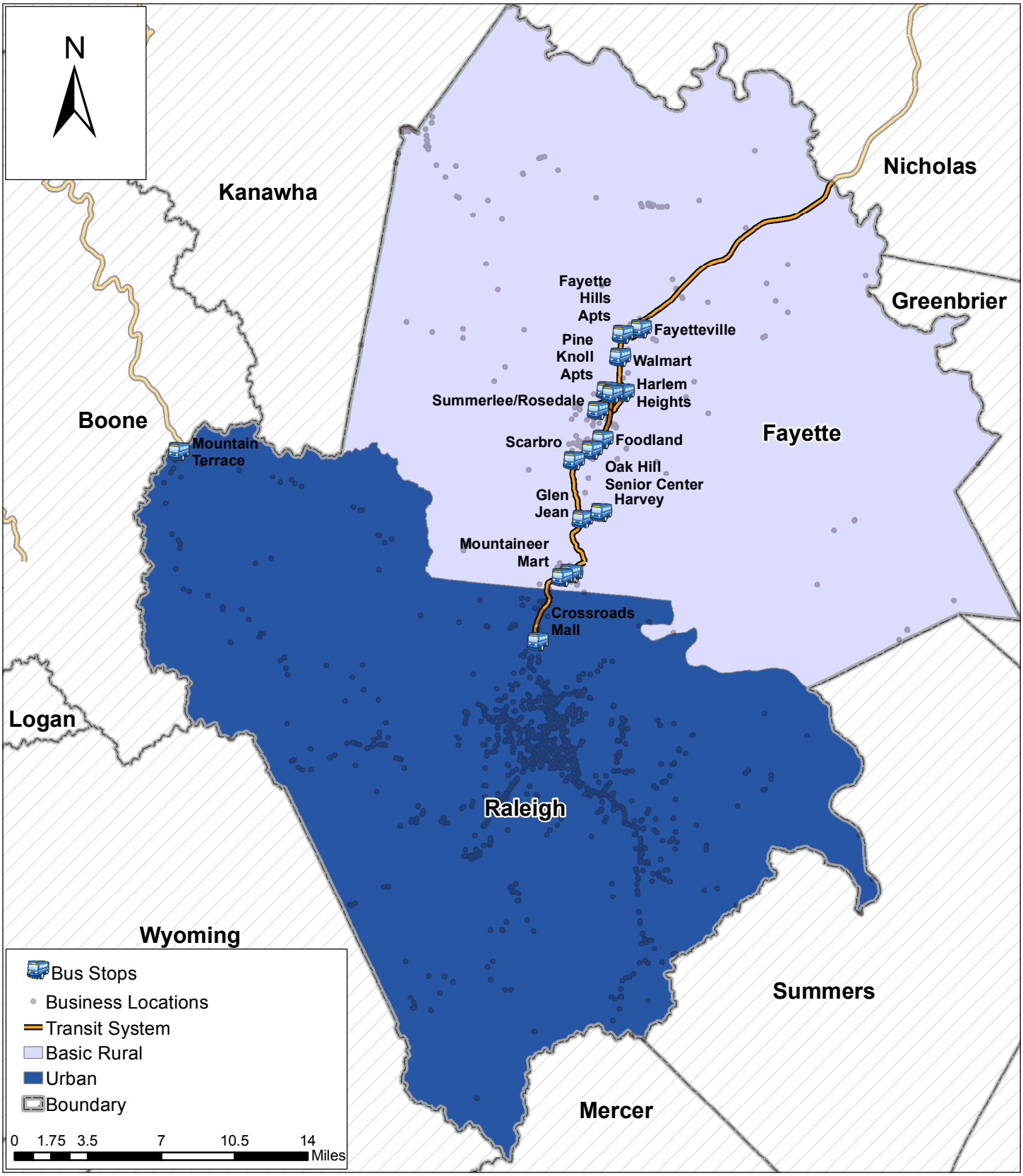
Source: Population Changes, United States Census 2000 and 2011 American Community Survey 5-Year Estimates; Transit Lines, Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 10

Transit System

Fayette - Raleigh

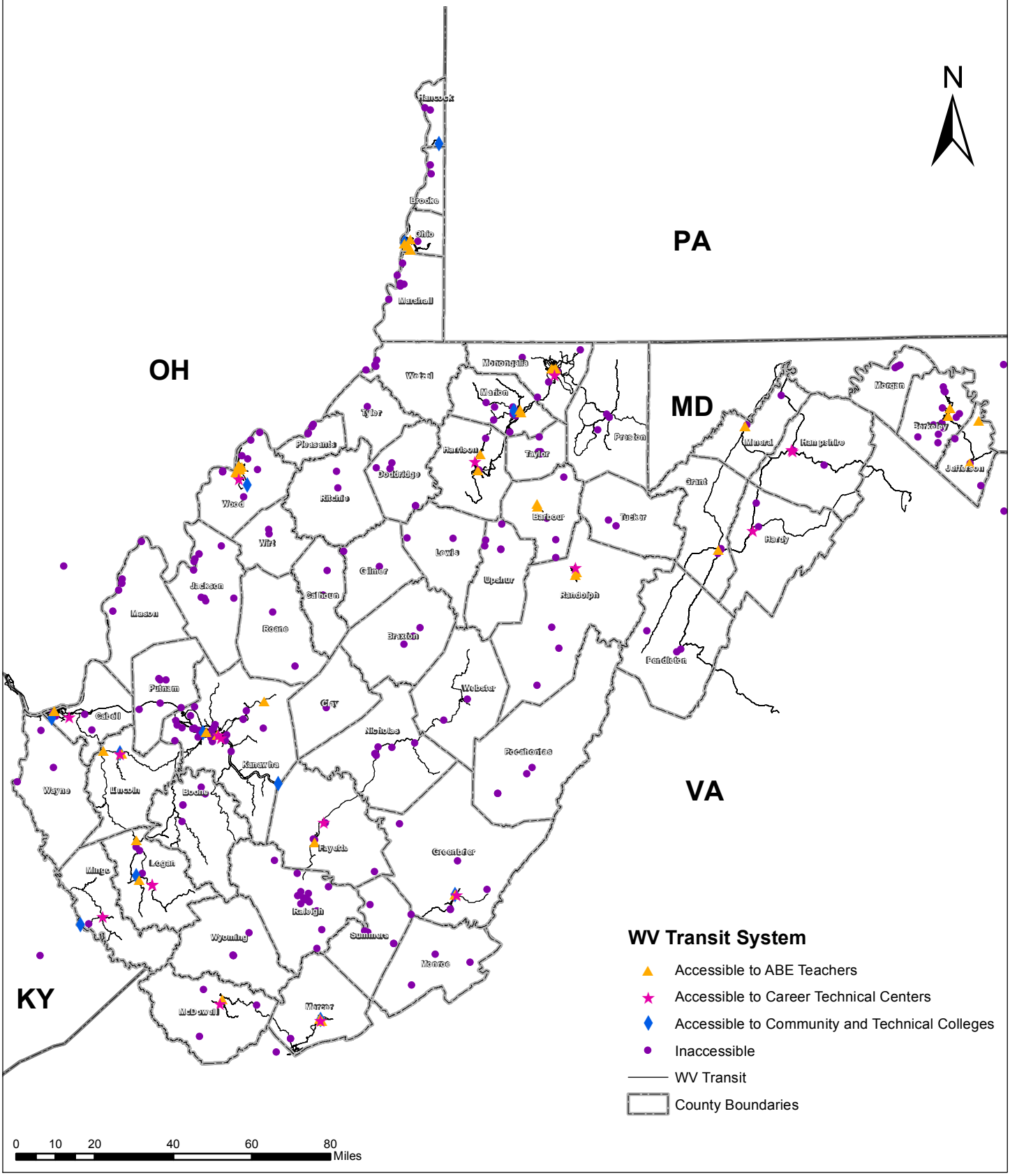


Source: Individual Transit Authority Websites

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 11

76% of Re-Education Inaccessible by Transit

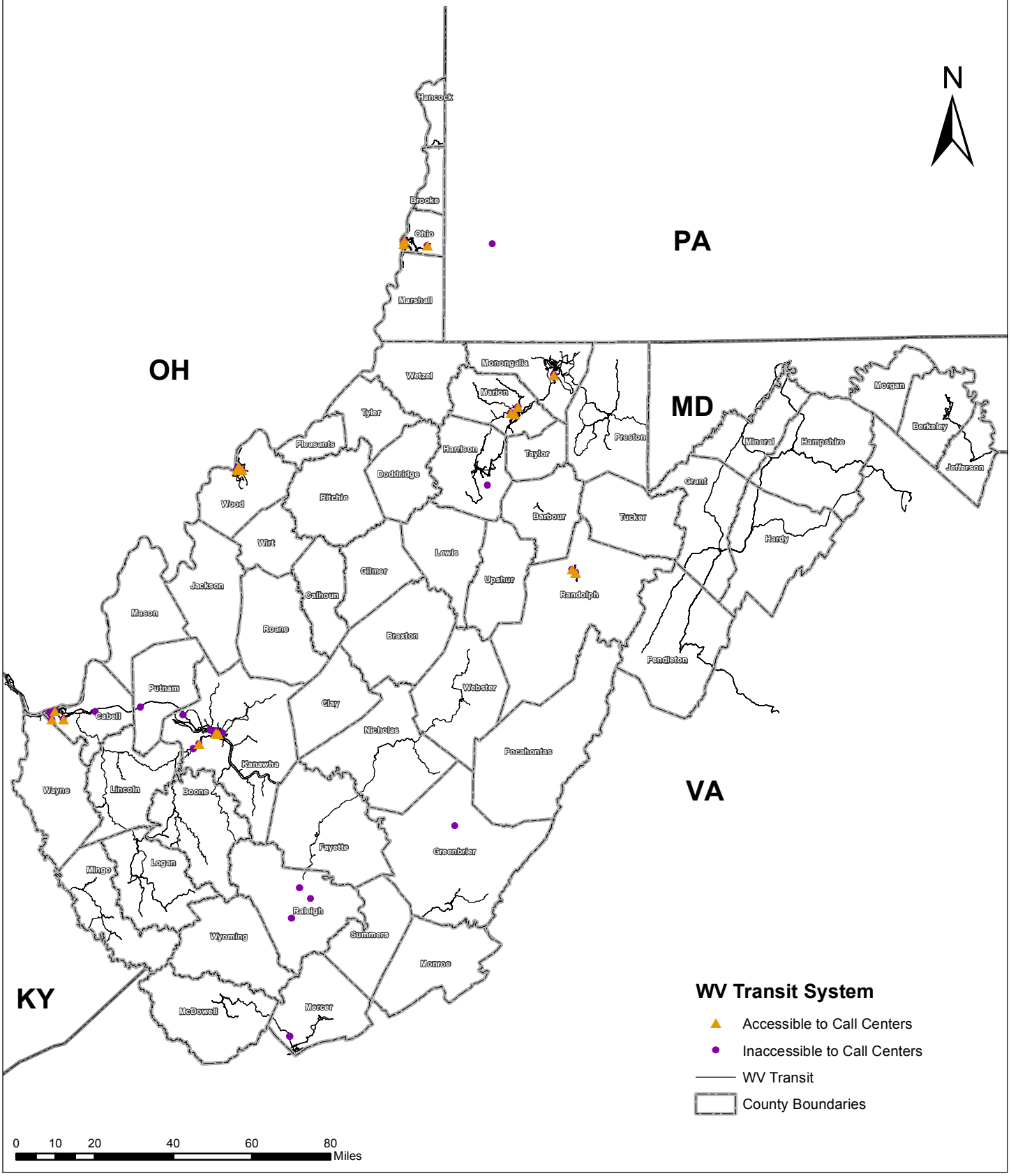


Source: Individual Transit Authority Websites; Locations, West Virginia Developmnet Office 2013

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.rjrati.org

Map 12

41% of Call Centers Inaccessible by Transit

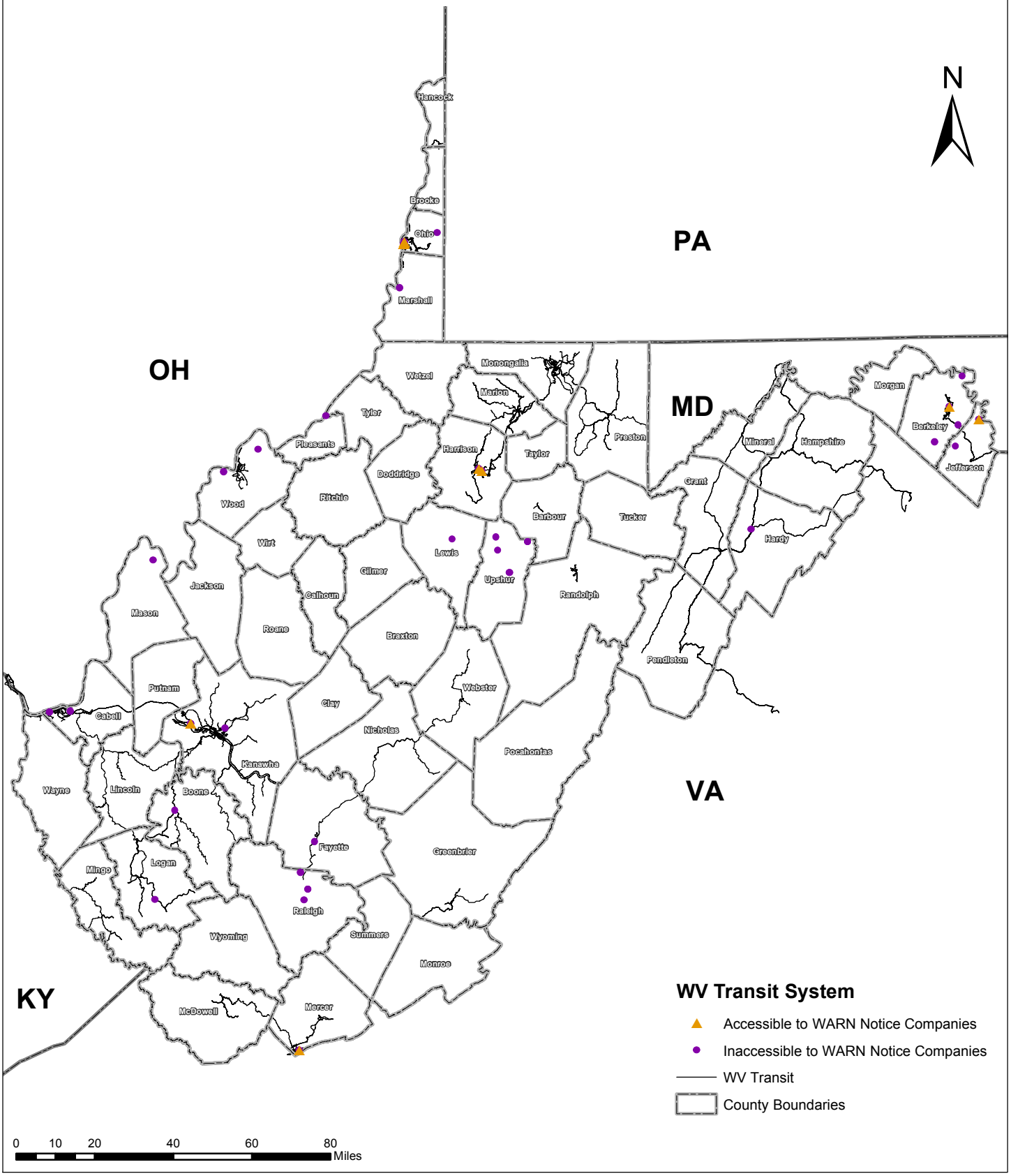


Source: Individual Transit Authority Websites; Locations, West Virginia Development Office 2013

RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 13

72% of Companies Filing WARN Notices Inaccessible by Transit



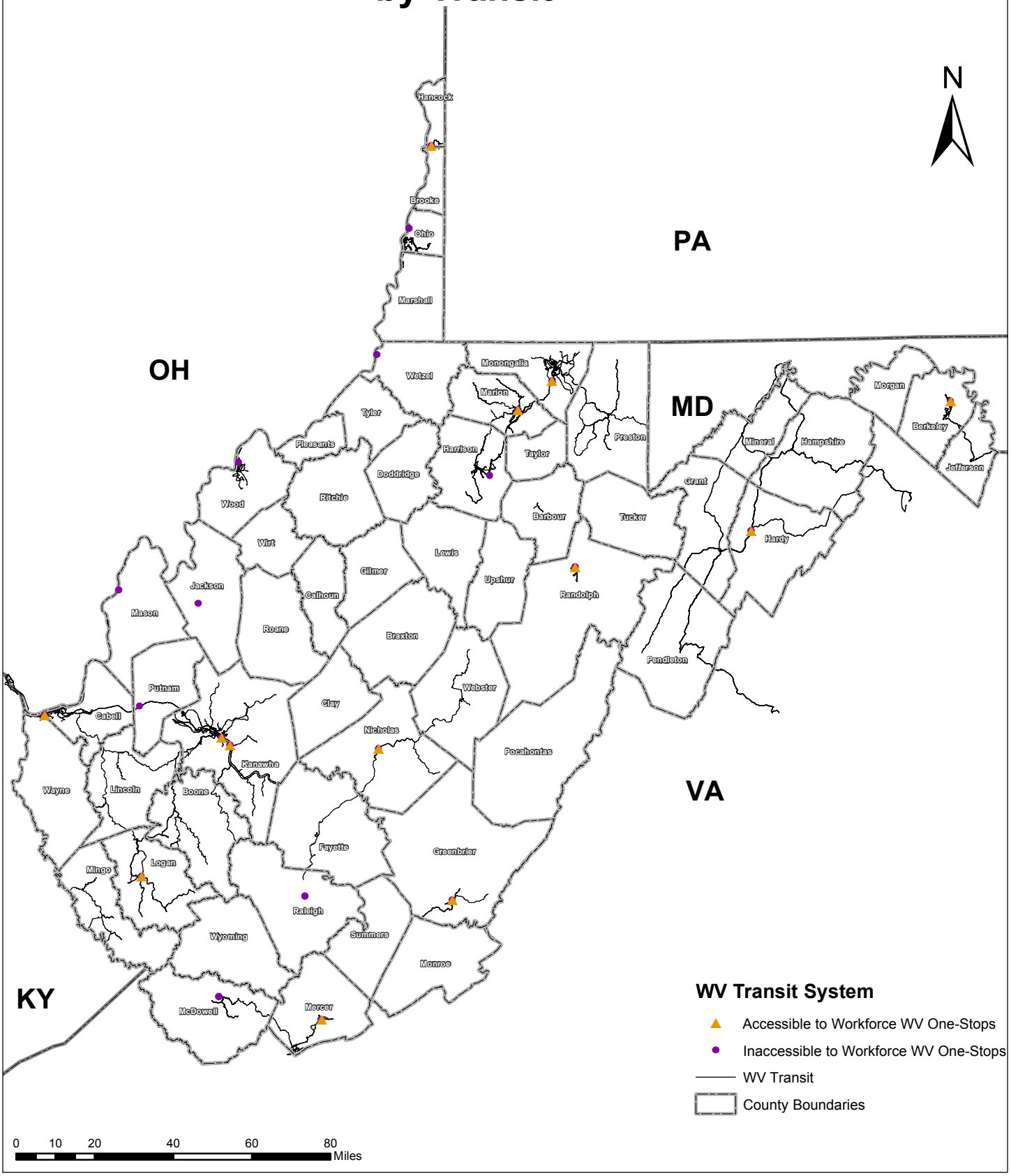
Source: Individual Transit Authority Websites; Locations, Workforce WV 2013

RTI RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

Map 14

41% of Workforce WV One-Stops Inaccessible by Transit



Source: Individual Transit Authority Websites; Locations, Workforce WV 2013

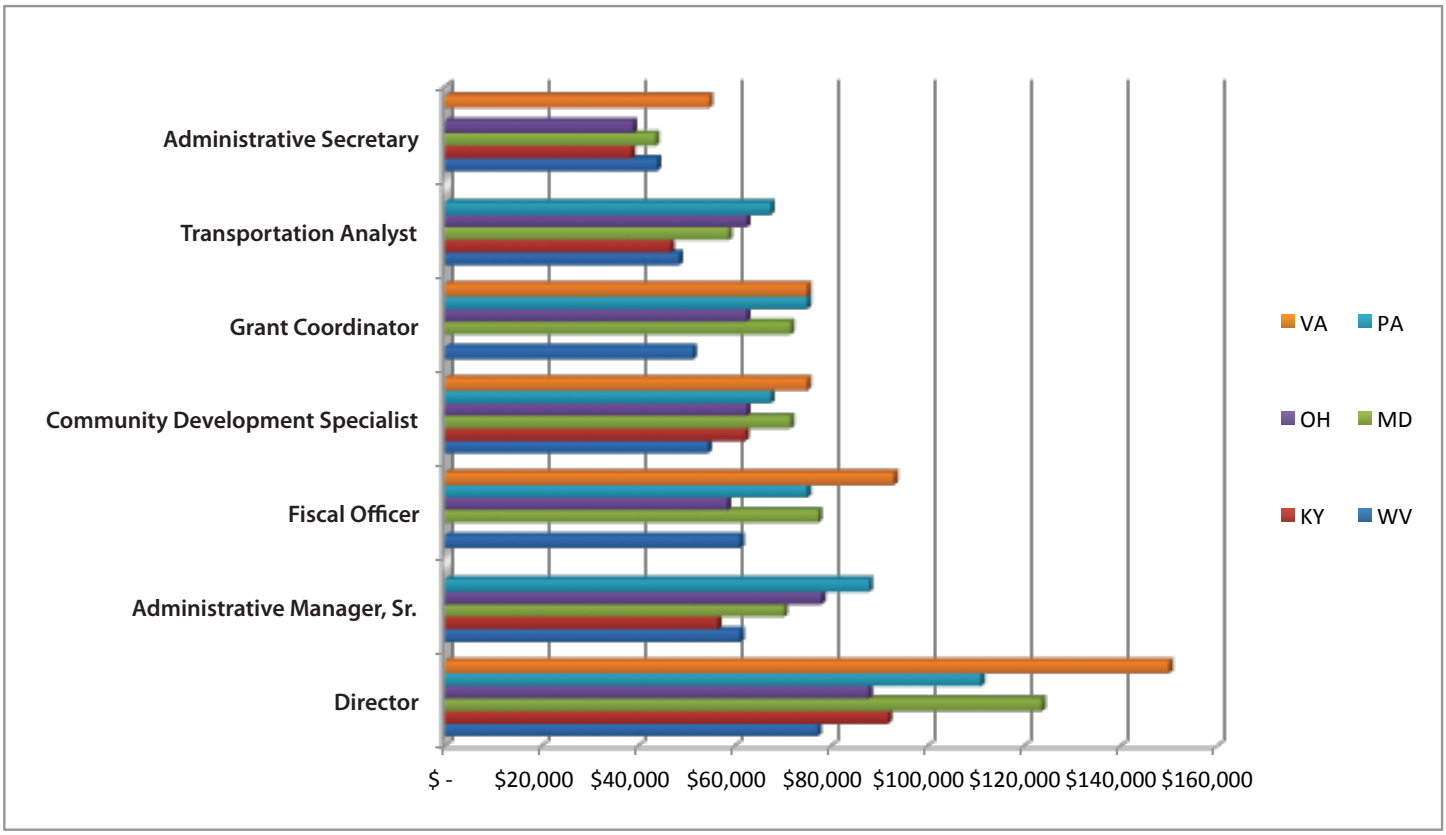
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Commuting to Work by Transportation Mode

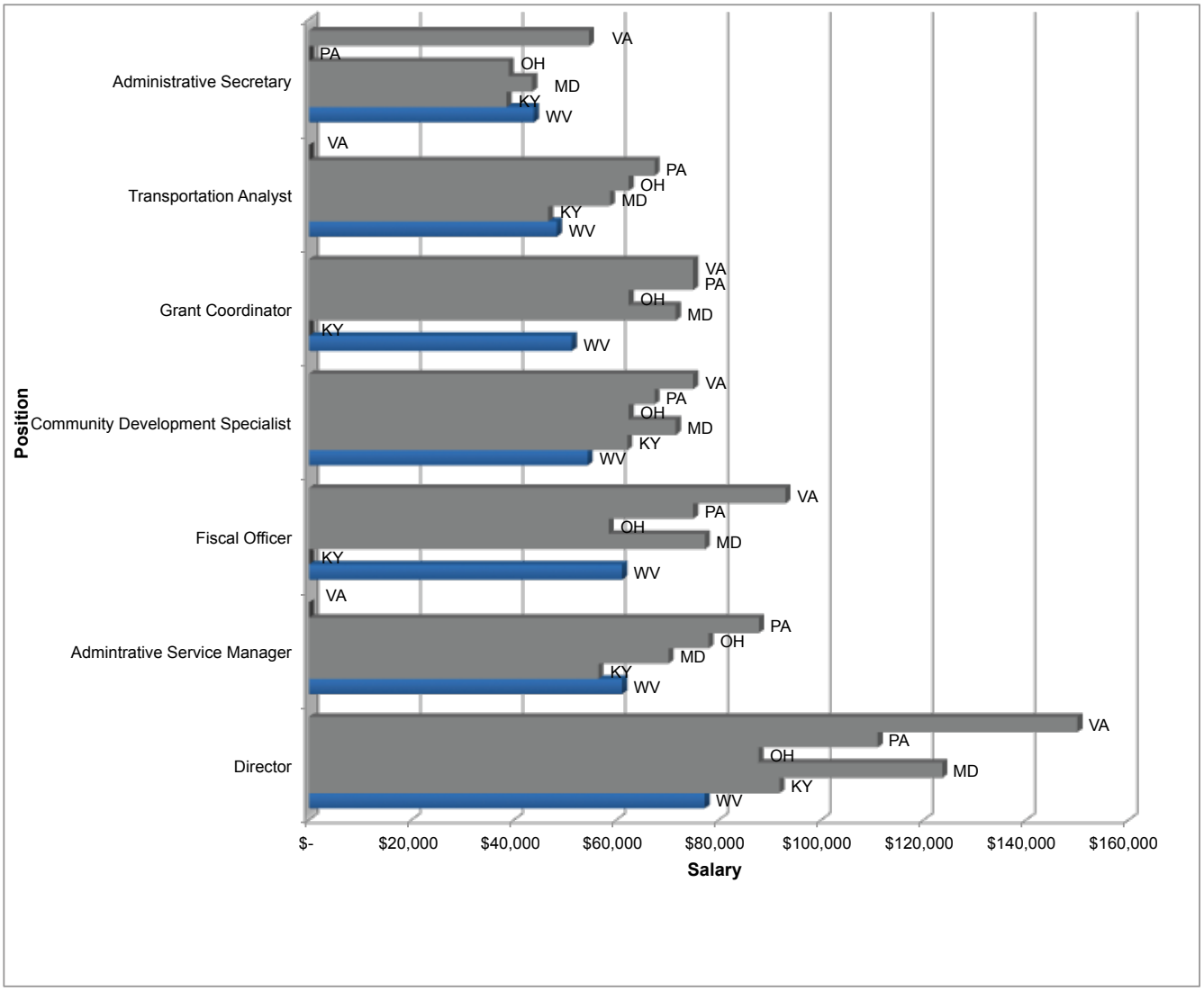
Barbour County	6,259	79.6%	11.6%	0.00%	3.0%	1.1%	4.7%	(X)
Berkeley County	47,637	81.9%	11.0%	1.4%	1.8%	0.9%	3.0%	(X)
Boone County	8,157	88.5%	7.1%	0.2%	2.2%	0.3%	1.7%	(X)
Braxton County	5,146	78.8%	14.3%	0.0%	2.7%	0.7%	3.5%	(X)
Brooke County	10,153	84.8%	9.3%	0.1%	3.3%	0.1%	2.3%	(X)
Cabell County	39,589	80.2%	9.8%	1.5%	4.0%	1.8%	2.8%	(X)
Calhoun County	2,417	77.3%	18.0%	0.0%	1.4%	0.2%	3.2%	(X)
Clay County	3,092	76.1%	16.9%	0.3%	1.5%	1.4%	3.8%	(X)
Doddridge County	3,108	75.0%	17.0%	0.0%	1.5%	0.2%	6.3%	(X)
Fayette County	15,653	79.5%	12.7%	0.2%	3.5%	0.7%	3.5%	(X)
Gilmer County	2,790	74.8%	11.1%	0.0%	5.0%	0.0%	9.2%	(X)
Grant County	5,760	81.4%	10.4%	0.0%	4.0%	0.4%	3.8%	(X)
Greenbrier County	13,735	83.4%	10.1%	0.1%	2.3%	1.2%	2.9%	(X)
Hampshire County	9,453	80.0%	14.6%	0.2%	1.6%	1.4%	2.2%	(X)
Hancock County	12,903	81.5%	9.9%	1.4%	2.3%	1.2%	3.8%	(X)
Hardy County	5,874	77.6%	13.7%	0.3%	2.7%	0.6%	5.0%	(X)
Harrison County	28,421	82.9%	10.6%	0.6%	2.3%	0.7%	2.8%	(X)
Jackson County	11,443	81.8%	12.1%	0.6%	2.9%	0.4%	2.1%	(X)
Jefferson County	25,406	75.0%	13.0%	3.1%	2.7%	1.3%	4.9%	(X)
Kanawha County	85,408	80.9%	11.0%	2.1%	2.8%	0.7%	2.5%	(X)
Lewis County	6,708	81.7%	12.0%	0.4%	2.0%	0.8%	3.1%	(X)
Lincoln County	6,580	79.5%	12.8%	0.4%	2.7%	2.2%	2.4%	(X)
Logan County	11,366	88.6%	7.2%	0.1%	2.1%	0.7%	1.2%	(X)
McDowell County	4,847	87.9%	7.8%	0.8%	2.1%	0.4%	1.1%	(X)
Marion County	24,537	84.2%	8.5%	0.4%	2.6%	1.1%	3.2%	(X)
Marshall County	12,823	82.4%	11.7%	0.0%	1.1%	1.6%	3.2%	(X)
Mason County	9,960	85.0%	10.1%	0.1%	2.1%	0.9%	1.8%	(X)
Mercer County	22,544	83.2%	9.0%	0.4%	2.8%	1.1%	3.5%	(X)
Mineral County	11,223	83.3%	10.1%	0.5%	2.8%	0.8%	2.5%	(X)
Mingo County	7,670	83.8%	11.0%	0.5%	3.0%	0.4%	1.2%	(X)
Monongalia County	44,392	78.5%	9.3%	1.4%	5.9%	1.1%	3.9%	(X)
Monroe County	5,439	76.0%	13.7%	0.0%	4.7%	0.3%	5.3%	(X)
Morgan County	7,022	84.2%	10.0%	0.2%	0.4%	1.8%	3.3%	(X)
Nicholas County	10,223	86.6%	9.5%	0.3%	1.3%	0.7%	1.7%	(X)
Ohio County	20,542	78.6%	9.4%	1.7%	6.6%	1.5%	2.2%	(X)
Pendleton County	3,615	72.9%	16.7%	0.3%	3.4%	0.4%	6.3%	(X)
Pleasants County	2,628	84.4%	10.4%	0.0%	3.3%	0.0%	1.9%	(X)
Pocahontas County	3,539	76.8%	16.2%	0.0%	2.5%	1.0%	3.4%	(X)
Preston County	13,719	80.3%	14.5%	0.4%	1.8%	0.9%	2.2%	(X)
Putnam County	24,681	87.7%	6.9%	0.1%	0.8%	0.3%	4.2%	(X)
Raleigh County	29,772	85.3%	7.1%	0.2%	2.4%	2.7%	2.3%	(X)
Randolph County	11,438	80.4%	10.8%	0.2%	3.9%	1.8%	2.8%	(X)
Ritchie County	3,933	80.0%	13.1%	0.3%	3.2%	0.5%	2.9%	(X)
Roane County	4,951	80.8%	12.5%	0.7%	0.6%	0.3%	5.1%	(X)
Summers County	4,413	74.8%	14.9%	0.0%	3.3%	1.8%	5.1%	(X)
Taylor County	6,765	83.2%	11.1%	0.0%	1.4%	1.7%	2.6%	(X)
Tucker County	3,113	74.5%	15.1%	0.3%	4.4%	1.9%	3.9%	(X)
Tyler County	3,260	81.7%	12.5%	0.2%	3.4%	0.8%	1.4%	(X)
Upshur County	9,387	84.9%	8.5%	0.2%	2.4%	0.4%	3.5%	(X)
Wayne County	15,872	88.1%	7.8%	0.3%	1.2%	0.9%	1.7%	(X)
Webster County	3,164	84.9%	10.0%	0.0%	2.9%	0.3%	1.9%	(X)
Wetzel County	5,994	82.2%	12.4%	0.0%	2.3%	1.1%	2.0%	(X)
Wirt County	2,086	81.7%	13.7%	0.0%	1.2%	2.0%	1.4%	(X)
Wood County	36,154	82.8%	10.8%	0.7%	2.0%	1.6%	2.2%	(X)
Wyoming County	7,267	87.3%	7.8%	0.2%	1.2%	2.5%	1.1%	(X)

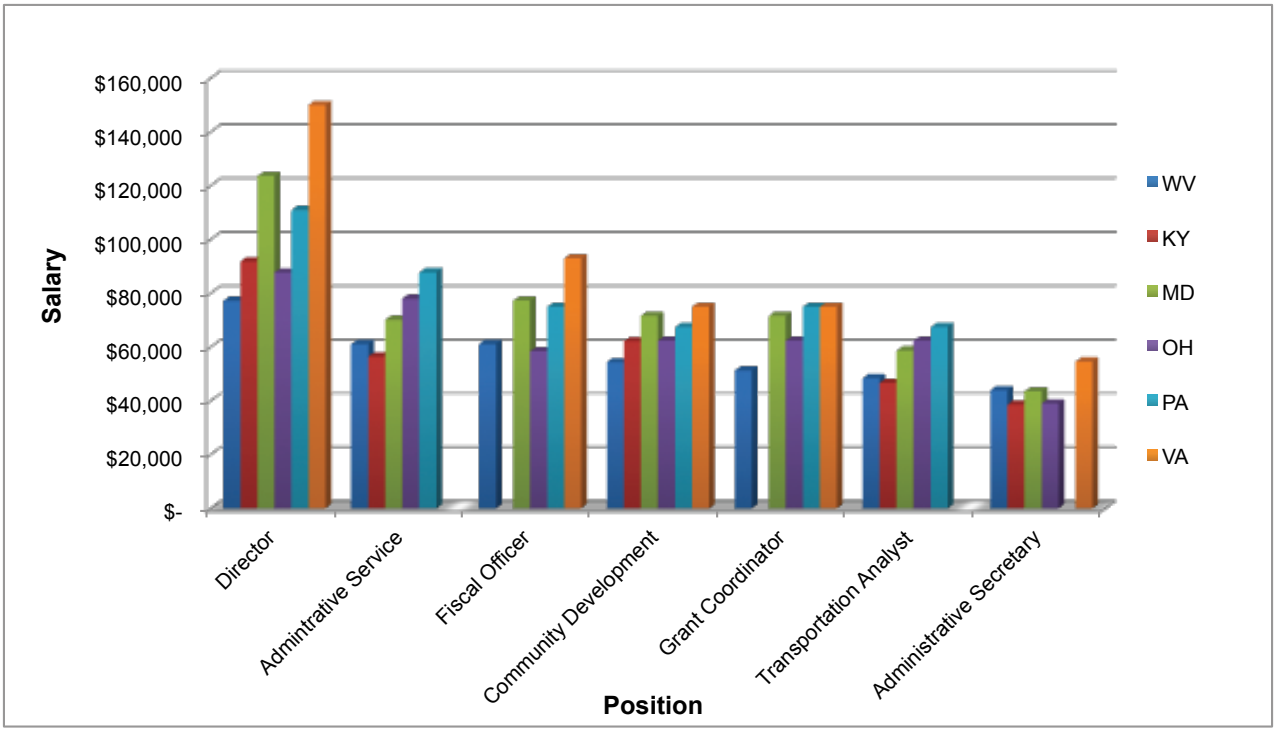
Salary Raw Data

Position	WV	KY	MD	OH	PA	VA
Director	$77,220	$91,860	$123,624	$87,750	$111,000	$150,000
Grant Coordinator	$51,312		$71,612.00	$62,400	$75,000	$75,000
Community Development Specialist	$54,396	$62,148	$71,612	$62,400	$67,443	$75,000
Administrative Manager, Sr.	$61,128	$56,496.00	$70,180.00	$78,000	$87,844	
Fiscal Officer	$61,128		$77,278.00	$58,500	$75,000	$93,000
Administrative Secretary	$43,896	$38,580.00	$43,549.00	$39,000		$54,653.00
Transportation Analyst	$48,396	$46,692.00	$58,745.00	$62,400	$67,443	



The WV Division of personnel, Schedule of Salary maximum pay grade amount was used for each job classification within the Division of Public Transit. This pay schedule was effective as of February 1, 2009. These amounts do not represent actual salaries of the employees of the Division of Public Transit.


Position
Administrative Secretary
Transportation Analyst
Grant Coordinator
Community Development Specialist
Fiscal Officer
Admintrative Service Manager
Director
VA
PA
OH
MD
KY
WV
$-
$20,000
$40,000
$60,000
$80,000
$100,000
$120,000
$140,000
$160,000
Salary


Salary
$160,000
$140,000
$120,000
$100,000
$80,000
$60,000
$40,000
$20,000
$-
Director
Admintrative Service
Fiscal Officer
Community Development
Grant Coordinator
Transportation Analyst
Administrative Secretary
Position
WV
KY
MD
OH
PA
VA

Adult Education Administrators Survey

.

1. Name, School, County:

2. Is transportation to your facility an issue for your students/clients? 1 2 3 4 5
Scale 1-5 with 1 = Not an issue, 5 Very much an issue.

3. Do your students/clients receive transportation assistance? Yes No

4. If yes, please identify the program (s)

5. If no, are you aware of any past programs in which transportation assistance was available? (specify)

6. Have you or administrators met with representatives of ***public transit*** (not school) in your area? Yes No

7. Do your adult students ride county school buses?
Yes No

9. Please include any information on exemplary/best practices of which you are aware in the field of adult education and transportation.We would like to include an overview of such projects in our study.

10. What is missing or needed to help get adults to and from ABE?

Health Care Survey Overview

Future of Transit Health Care

Respondents:	40 displayed, 40 total	Status:	Closed
Launched Date:	08/08/2013	Closed Date:	1 8/2013

1. Please enter your contact information. Name, Company, Address, email and/or telephone. Your responses are confidential.

Total Respondents	12
(skipped this question)	28

2. Do your employees have problems getting to work because of transportation issues?

	Response Total	Response Percent	Points	Avg
Reliable transportation is a huge problem for many of our employees	0	0%	n/a	n/a
Reliable transportation is a problem for some of our employees	8	73%	n/a	n/a
Reliable transportation is not a problem for our employees	3	27%	n/a	n/a
Other, please specify	0	0%	n/a	n/a
Total Respondents	11	100%		
(skipped this question)	29			

3. Do you provide/subsidize transportation for your employees? Check all that apply.

	Response Total	Response Percent	Points	Avg
We have a contractual arrangement with a taxi service to provide services to us	0	0%	n/a	n/a
We have a contractual arrangement with a transit agency to provide services to us	0	0%	n/a	n/a
We have designated an employee as an "Employee Transportation Coordinator"	0	0%	n/a	n/a
We support the use of van pools and car pools	4	33%	n/a	n/a
We participate in an IRS Qualified Transportation Fringe Benefit Program	0	0%	n/a	n/a
We reimburse employees for transit fares	0	0%	n/a	n/a
We negotiate a fare rate for our employees and provide tokens at a reduced rate	0	0%	n/a	n/a
We participate in a guaranteed ride home program for people who use public transportation or car pools	0	0%	n/a	n/a

We provide vehicles to transport workers	0	0%	n/a	n/a
Other, please specify view	1	8%	n/a	n/a
Total Respondents	12			
(skipped this question)	26			

4. In the future, to what extent would you be willing to support public transit for your employees?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A Public Transportation not available in this area	Response Total	Points	Avg
We would consider providing vehicles to transport workers	0% (0)	8.33% (1)	33.33% (4)	16.67% (2)	16.67% (2)	25% (3)	12	n/a	n/a
We would consider having a contractual arrangement with a taxi service to provide services to us	0% (0)	18.18% (2)	9.09% (1)	9.09% (1)	9.09% (1)	54.55% (6)	11	n/a	n/a
We would consider having a contractual arrangement with a transit agency to provide services to us	8.33% (1)	25% (3)	25% (3)	8.33% (1)	0% (0)	33.33% (4)	12	n/a	n/a
We would consider designating an employee as an "Employee Transportation Coordinator"	0% (0)	18.18% (2)	36.36% (4)	9.09% (1)	9.09% (1)	27.27% (3)	11	n/a	n/a
We would consider the use of van pools and car-pools	8.33% (1)	25% (3)	33.33% (4)	16.67% (2)	0% (0)	16.67% (2)	12	n/a	n/a
We would consider participating in an IRS Qualified Transportation Fringe Benefit Program	8.33% (1)	33.33% (4)	41.67% (5)	8.33% (1)	0% (0)	8.33% (1)	12	n/a	n/a
We would consider reimbursing our employees for	9.09% (1)	9.09% (1)	45.45% (5)	18.18% (2)	0% (0)	18.18% (2)	11	n/a	n/a

transit fares									
We would consider negotiating a fare rate for our employees and provide tokens at a reduced rate	0% (0)	27.27% (3)	27.27% (3)	9.09% (1)	0% (0)	36.36% (4)	11	n/a	n/a
We would consider participating in a guaranteed ride home program for people who use public transportation or car pools	22.22% (2)	22.22% (2)	33.33% (3)	0% (0)	0% (0)	22.22% (2)	9	n/a	n/a

Total Respondents	12
(skipped this question)	28

5. Check all that apply More of our employees would use public transportation if:

	Response Total	Response Percent	Points	Avg
Public transportation was available to and from their home	10	83%	n/a	n/a
They knew what was available	6	50%	n/a	n/a
Their work schedule matched the bus schedule	7	58%	n/a	n/a
It allowed them to make stops for other tasks	5	42%	n/a	n/a
Wait time for pickup was more reliable	1	8%	n/a	n/a
Someone taught them how to use the bus	1	8%	n/a	n/a
Busses were easier to board	0	0%	n/a	n/a
Language was not a problem	0	0%	n/a	n/a
Other, please specify view	1	8%	n/a	n/a

Total Respondents	12
(skipped this question)	28

6. Do patients have problems getting to your facility because of transportation issues?

	Response Total	Response Percent	Points	Avg
Reliable transportation is a huge problem for many of our patients	3	25%	n/a	n/a
Reliable transportation is a problem for some of	2	17%	n/a	n/a

Student Survey Overview

FUTURE OF TRANSIT: Student

Respondents:	684 displayed, 684 total	Status:	Closed
Launched Date:	10/23/2013	Closed Date:	1 3/2013

1. What school/college do you attend?

	Response Total	Response Percent	Points	Avg
Community & Technical Colleg	438	89%	n/a	n/a
Career Center	2	0%	n/a	n/a
Adult Education	35	7%	n/a	n/a
Other	15	3%	n/a	n/a
Total Respondents	491	100%		
(skipped this question)	193			

2. Is your transportation to school limited because of where you live?

	Response Total	Response Percent	Points	Avg
Yes	248	50%	n/a	n/a
No	251	50%	n/a	n/a
Total Respondents	499			
(skipped this question)	185			

3. How do you usually get places?

	Response Total	Response Percent	Points	Avg
Personal car vehicle	326	65%	n/a	n/a
Family/friends' vehicle	110	22%	n/a	n/a
Van/car pooling	5	1%	n/a	n/a
Bicycle/walking	10	2%	n/a	n/a
Public Transportation	47	9%	n/a	n/a
Total Respondents	498	100%		
(skipped this question)	186			

4. Do you ever have problems or need help with transportation on a regular basis for any of the following? Check ALL that apply.

	Response Total	Response Percent	Points	Avg
Getting to school between 5:00 AM - 7:30 AM	37	7%	n/a	n/a
Getting to school between 7:30 AM - 8:30 AM	91	18%	n/a	n/a
Getting to school after 8:30 AM and before 5:00 PM	116	23%	n/a	n/a
Getting to school between 5:00 PM - 8:00 PM	75	15%	n/a	n/a
Getting home or other from school between 5:00 AM - 7:30 AM	35	7%	n/a	n/a
Getting home or other from school between 7:30 AM - 8:30 AM	37	7%	n/a	n/a

Getting home or other from school after 8:30 AM and before 5:00 PM	86	17%	n/a	n/a
Getting home or other from school between 5:00 PM - 8:00 PM	91	18%	n/a	n/a
Getting kids to childcare, school or school activities	62	12%	n/a	n/a
Going to the doctor/dentist or other medical appointments	96	19%	n/a	n/a
Visiting friends and family	75	15%	n/a	n/a
Attending recreational activities and events	84	17%	n/a	n/a
Weekend and holiday travel	87	17%	n/a	n/a
Other, please specify	50	10%	n/a	n/a

Total Respondents 499

(skipped this question) 185

5. Use the scale of 1-4 or answer NA (not applicable) with 1 being Strongly Disagree to 4 Strongly Agree please answer this question: "I would use public busses to get to school regularly if:

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree	5 N/A	Response Total	Points	Avg
I knew what was available	8.85% (43)	11.73% (57)	29.22% (142)	30.86% (150)	19.34% (94)	486	n/a	n/a
School schedule matched bus schedule	10.51% (52)	10.51% (52)	22.83% (113)	31.72% (157)	24.44% (121)	495	n/a	n/a
There were bus routes to my school	12.45% (62)	9.44% (47)	21.08% (105)	34.34% (171)	22.69% (113)	498	n/a	n/a
It allowed me to make stops for other tasks	12.55% (62)	15.38% (76)	21.86% (108)	20.24% (100)	29.96% (148)	494	n/a	n/a
Wait time for pick-up was shorter	11.16% (55)	11.56% (57)	19.47% (96)	25.96% (128)	31.85% (157)	493	n/a	n/a
Bus arrival time was more reliable	8.87% (44)	11.49% (57)	21.57% (107)	29.23% (145)	28.83% (143)	496	n/a	n/a
Someone taught me how to use the bus	13.59% (67)	16.23% (80)	19.07% (94)	14.4% (71)	36.71% (181)	493	n/a	n/a
Busses were easier to	10.39% (51)	15.68% (77)	19.98% (98)	16.5% (81)	37.47% (184)	491	n/a	n/a

board								
Language was not a problem	10.49% (51)	13.37% (65)	17.7% (86)	15.64% (76)	42.8% (208)	486	n/a	n/a
					Total Respondents	499		
					(skipped this question)	185		

6. We appreciate your input! If you would like to be entered in a drawing to receive a $25.00 itune card we will need a name and contact information. (email or phone, whichever you prefer) If you do not care to to enter the drawing you may complete the survey now .Thank you for your time.

		Response Total	Response Percent
view	First name	269	55%
view	Last name	269	55%
view	Email	287	59%
view	Phone	221	45%
	Total Respondents	304	
	(skipped this question)	380	

Acronyms and Glossary of Terms

AASHTO	American Association of State Highway Transportation Officials
APTA	American Public Transit Association
ARC	Appalachian Regional Commission
CDL	Commercial Driver's License
EPA	Environmental Protection Agency
EVIR	Electronic Vehicle Inspection Report
FTA	Federal Transit Administration
GPS	Global Positioning System
IRS	Internal Revenue Service
JARC	Jobs and Reverse Commute program
ICT	Information and Communication Technology
ITS	Intelligent Transportation Systems
HUD	US Department of Housing and Urban Development
KRT	Kanawha Regional Transit
MAP-21	Moving Ahead for Progress in the 21 Century
MPO	Metropolitan Planning Organization
MAST	Mobility Allowance Shuttle and Transit
RTAP	Rural Transit Assistance Program
RTI	Rahall Transportation Institute
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SSO	State Safety Oversight
TAM	Transit Asset Management
TIP	Transit Improvement Program
TOD	Transit Oriented Development