



CHAPTER 11. PUBLIC TRANSPORTATION

INTRODUCTION

Public Transportation is an important transportation mode within the region. Public and private transit systems and facilities make the region more accessible. This includes the young, elderly, disabled, low-income and all others without means of personal transportation, or simply those who do not wish to drive a private vehicle and desire public transportation as a choice. Transit can serve more people while causing less environmental impact and traffic congestion. Transit reduces dependence upon the automobile, reduces overall household transportation costs and increases access to job opportunities to those without automobiles and/or households with limited transportation choices. Transit options can provide safe routes to work, school, medical appointments and shopping.

PUBLIC TRANSIT PROVIDERS

Northwest Arkansas has two public transit providers that currently operate in the urban and rural areas of the region and include Ozark Regional Transit, Inc. (ORT) and University of Arkansas Razorback Transit.

Approximately 2.3 million unlinked trips were provided in 2013 between the two public transportation systems with average daily unlinked trips of 1,127 on ORT and 8,500 unlinked trips on Razorback Transit (Table 11.1). Both systems have continued to see growth in ridership as the University of Arkansas enrollment has increased from approximately 21,000 students in 2010 to approximately 27,000 students in 2015. Also new routes are being added by ORT to serve the growing Northwest Arkansas Community College and jurisdictions in Benton County. Both ORT and Razorback Transit coordinate their routes to avoid duplication of service and provide key connections/transfers between the two systems within Fayetteville and University of Arkansas.

7 Year History of Fixed Route Unlinked Transit Trips and Demand Response - Ozark Regional Transit and Razorback Transit											
Razorback Transit						Ozark Regional Transit					
Annual Unlinked Trips Fixed Route and Demand Response						Annual Unlinked Trips Fixed Route and Demand Response					
Year	Unlinked Trips	Numeric Change	Percent Change	Fixed Route	Demand Response	Year	Unlinked Trips	Numeric Change	Percent Change	Fixed Route	Demand Response
2007	1,280,648			1,272,041	8,607	2007	153,242			127,407	25,835
2008	1,223,358	-57,290	-4.47%	1,216,284	7,074	2008	205,256	52,014	33.94%	187,839	17,417
2009	1,335,028	111,670	9.13%	1,327,673	7,355	2009	193,082	-12,174	-5.93%	177,959	15,123
2010	1,575,149	240,121	17.99%	1,567,802	7,347	2010	237,184	44,102	22.84%	212,491	24,693
2011	1,647,481	72,332	4.59%	1,639,066	8,415	2011	263,828	26,644	11.23%	238,048	25,780
2012	1,933,690	286,209	17.37%	1,924,886	8,804	2012	296,405	32,577	12.35%	269,355	27,050
2013	2,015,407	81,717	4.23%	2,006,722	8,685	2013	288,501	-7,904	-2.67%	268,302	20,199

Source: 2007-2013 National Transit Database

Table 11.1 - Fixed Route Unlinked Trips and Demand Response

The American Public Transportation Association has provided the definition for unlinked trips as “unlinked passenger trips is the number of times passengers board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination and regardless of whether they pay a fare, use a pass or transfer, ride for free, or pay in some other way. A person riding only one vehicle from origin to destination takes one unlinked passenger trip; a person who transfers to a second vehicle takes two unlinked passenger trips; a person who transfers to a third vehicle takes three unlinked passenger trips...”

OZARK REGIONAL TRANSIT

Ozark Regional Transit (ORT) began operations in Northwest Arkansas in 1979 under the direction of Community Resources Group (CRG), a local non-profit organization. In 2001, CRG announced that they would no longer provide the service. At that time, the Mayors of Bentonville, Fayetteville, Springdale, and Rogers as well as the County Judges of Benton, Carroll, Madison and Washington Counties formed a Board to manage ORT. One of their first acts as a Board was to hire a professional transit management firm, and First Transit was hired to manage the system.

Prior to 2002, ORT provided only dial-a-ride services in this area, predominately to support the health and human services agencies. ORT received rural FTA funding starting in 1980. With the tremendous growth in Northwest Arkansas, in 1990, the Fayetteville/Springdale metropolitan area became an Urbanized Area and ORT began receiving FTA financial assistance for Urbanized Areas over 50,000 in population. In 2002, the Urbanized Area FTA funding increased from a total of \$750,000 to \$1.7 million, which is currently split between ORT and Razorback Transit, which serves the University of Arkansas students.



Currently, ORT receives funding from the FTA in rural and urban funding, a State rental car tax and the local match to FTA monies from the cities and counties it serves.

In 2002, ORT began its first fixed route in south Fayetteville. In 2005, it began six new fixed routes, with two in Fayetteville, Rogers and Springdale, and one in Bentonville.

ORT currently operates 13 fixed transit routes in the region and provides weekday service Monday through Friday within the cities of Bentonville, Rogers, Fayetteville, Farmington, Greenland, Johnson, Lincoln, Prairie Grove, Springdale, and West Fork. The fixed route service generally begins at 6:30 AM and ends at 7:00 PM. Routes generally are one hour long and typically serve an area with a circular “loop” route. ORT is a fare-based service with the current fare at \$1.25 per trip. On an average weekday, ORT provides approximately 1,200 fixed route unlinked trips throughout the region. Several of the longer “regional” routes have extended hours into the evening and include service between Northwest Arkansas Community College, the University of Arkansas, and Lincoln and West Fork.

ORT also provides complementary ADA paratransit service within $\frac{1}{2}$ mile of a fixed route and demand response service in Benton, Washington and portions of Madison and Carroll County. ORT operates nine vans for the paratransit/demand response service. The current fleet consists of 31 vehicles with nine vans and 22 Buses (medium to light weight cut-away buses, 16 to 38 passengers). ORT buses are all equipped with bike racks and wireless internet service.

ORT continues to work with local industries to develop substantive public transit routes that serve the needs of employers and employees. ORT will investigate industry partnerships to fund the costs associated with regular operation of additional public transit routes. Development of these relationships with the employers is vital in securing the funding necessary to have a fully functional, vibrant and reliable transit system in Northwest Arkansas. These relationships will help ORT build a public transit network that provides meaningful connections for work, entertainment, education and medical trips.

ORT provides approximately 300,000 unlinked trips (Fixed Route, Paratransit-Demand Response, and Charter) with 274,441 unlinked trips on the fixed route bus system (Table 11.2 and Figure 11.1).

Ozark Regional Transit Annual Unlinked Trips Fixed Route and Demand Response					
Year	Unlinked Trips	Numeric Change	Percent Change	Fixed Route	Demand Response
2007	153,242			127,407	25,835
2008	205,256	52,014	33.94%	187,839	17,417
2009	193,082	-12,174	-5.93%	177,959	15,123
2010	237,184	44,102	22.84%	212,491	24,693
2011	263,828	26,644	11.23%	238,048	25,780
2012	296,405	32,577	12.35%	269,355	27,050
2013	288,501	-7,904	-2.67%	268,302	20,199

Source: 2007-2013 National Transit Database

Ozark Regional Transit Average Weekday Unlinked Trips Fixed Route and Demand Response			
Year	Unlinked Trips	Numeric Change	Percent Change
2007	613		
2008	805	192	31.32%
2009	769	-36	-4.47%
2010	927	158	20.55%
2011	1,049	122	13.16%
2012	1,156	107	10.20%
2013	1,127	-29	-2.51%

Source: 2007-2013 National Transit Database

Table 11.2- Fixed Route Unlinked Trips and Demand Response ORT

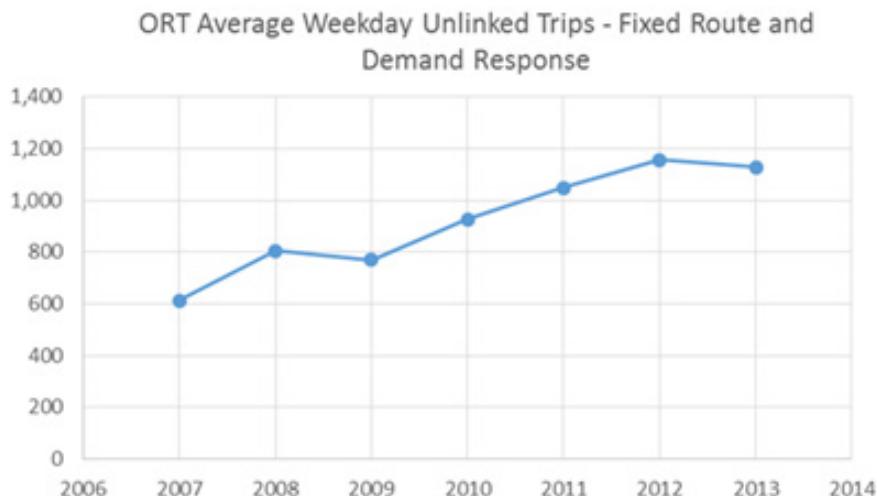


Figure 11.1- ORT Average Unlinked Trips - Fixed Route and Demand Response 2007-2013

The following service improvements and budgets for a 3-5 year and a 10 year model plans were identified by ORT.

3 TO 5 YEAR MODEL

Number of Weekday Routes/Runs

Routes	Runs
Airport Run	1
Wash County Fixed Rural	2
NWACC Express	3
Fayetteville	8
Springdale	8
Bentonville	5
Rogers	5
Bentonville/Rogers Connector	2
Siloam to Springdale Connector	2
71 Business Route	2
Total Fixed Routes/Runs	38

Week Day Service

Projected Hourly Rate	\$46.00
Daily Hours per Route/Run	16
Daily Cost per Route/Run	\$736.00
Daily System Cost	\$27,968.00
Weekday Service Cost	\$7,131,840.00
Annual Service Days	255

Table 11.3 - Full Service Weekdays

Number of Saturday Routes/Runs

Routes	Runs
Airport Run	1
Wash County Fixed Rural	1
NWACC Express	1
Fayetteville	5
Springdale	5
Bentonville	3
Rogers	3
Bentonville/Rogers Connector	1
Siloam to Springdale Connector	1
71 Business Route	2
Total Fixed Routes/Runs	23

Saturday Service

Projected Hourly Rate	\$46.00
Daily Hours per Route/Run	10
Daily Cost per Route/Run	\$460.00
Daily System Cost	\$10,580.00
Saturday Service Cost	\$550,160.00
Annual Saturdays	52

Table 11.4 - Reduced Service Saturdays

10 YEAR MODEL**Full Service Weekdays**

Routes	Runs
Airport Run	2
Wash County Fixed Rural	2
NWACC Express	3
Fayetteville	10
Springdale	10
Bentonville	7
Rogers	7
Bentonville/Rogers Connector	2
Siloam to Springdale Connector	2
Siloam Springs	4
Siloam to Centerton Connector	2
71 Business Route	4
49 Commuter	4
Total Fixed Routes/Runs	59

Week Day Service

Projected Hourly Rate	\$55.00
Daily Hours per Route/Run	20
Daily Cost per Route/Run	\$1,100.00
Daily System Cost	\$64,900.00
Weekday Service Cost	\$16,938,900.00
Annual Service Days	261

Table 11.5 - Number of Weekday Routes/Runs**Reduced Service Saturdays**

Routes	Runs
Airport Run	2
Wash County Fixed Rural	1
NWACC Express	1
Fayetteville	5
Springdale	5
Bentonville	2.5
Rogers	2.5
Bentonville/Rogers Connector	1
Siloam to Springdale Connector	1
Siloam Springs	3
Siloam to Centerton Connector	1
71 Business Route	2
49 Commuter	2
Total Fixed Routes/Runs	29

Saturday Service

Projected Hourly Rate	55
Daily Hours per Route/Run	\$16.00
Daily Cost per Route/Run	\$880.00
Daily System Cost	\$25,520.00
Saturday Service Cost	\$2,654,080.00
Annual Saturdays	104

Table 11.6 - Number of Saturday Routes/Runs

RAZORBACK TRANSIT

Razorback Transit originated in 1979, through the joint efforts of the University of Arkansas - Fayetteville (UA), the AHTD and the NWARPC (the MPO for Northwest Arkansas). In July 2004, Razorback Transit became a direct recipient of Federal Transportation Administration (FTA) funds.

Razorback Transit provides fare-free transportation to on-campus locations and major off-campus living and shopping areas in Fayetteville. Nineteen full size (40 foot long, 102" wide) buses are operated from 7:00 AM to 6:00 PM, Monday through Friday on 10 fixed routes during the fall and spring semesters (mid-August to mid-May) and reduced service is also provided on five combined routes when school is in session from 6:00 PM until 10:00 PM. Additionally, Saturday bus service on the five combined routes is provided year round from 7:00 AM until 10:30 PM. During summer and Christmas breaks, five combined routes are operated from 7:00 AM until 6:00 PM.

Annual fixed route ridership averaged 1.86 million from FY 2010 to FY 2014. In FY 2015, annual fixed route ridership increased to over 2 million (Table 11.7 and Figure 11.2).

- The Green, Blue and Red routes have the highest ridership of all Razorback Transit routes, and account for about one half of all Razorback Transit ridership.
- Weekday evening ridership averages about 400 passengers, with the Blue reduced route typically having the highest ridership in the evenings.
- Saturday ridership averages about 1,000 riders, with the Red route having the highest ridership of the four Saturday routes.
- In the summer, ridership averages over 1,500 passengers per day.

Year	Unlinked Trips	Numeric Change	Percent Change	Fixed Route	Demand Response
2007	1,280,648			1,272,041	8,607
2008	1,223,358	-57,290	-4.47%	1,216,284	7,074
2009	1,335,028	111,670	9.13%	1,327,673	7,355
2010	1,575,149	240,121	17.99%	1,567,802	7,347
2011	1,647,481	72,332	4.59%	1,639,066	8,415
2012	1,933,690	286,209	17.37%	1,924,886	8,804
2013	2,015,407	81,717	4.23%	2,006,722	8,685

**Table 11.7- Fixed Route Unlinked Trips and Demand Response
Razorback Transit**

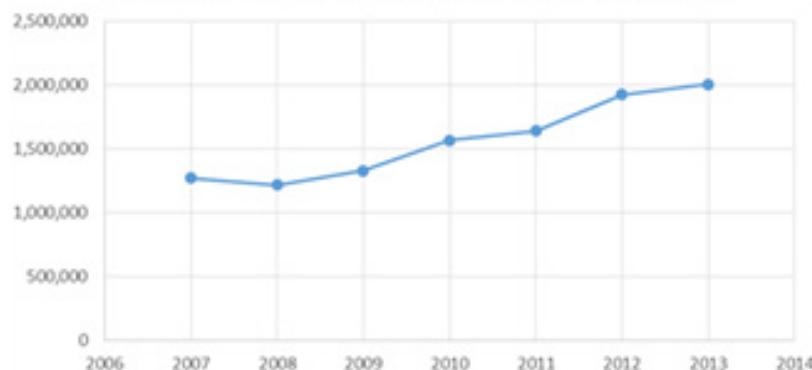


Figure 11.2- Razorback Transit Average Unlinked Trips 2007-2013

TRANSIT RIDERSHIP

Trips are reported to the National Transit Database and the term “unlinked trips” are used to track the number of trips made by system and are reported by transit agency. The American Public Transportation Association defines unlinked trips as “...the number of times passengers board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination and regardless of whether they pay a fare, use a pass or transfer, ride for free, or pay in some other way. A person riding only one vehicle from origin to destination takes one unlinked passenger trip; a person who transfers to a second vehicle takes two unlinked passenger trips; a person who transfers to a third vehicle takes three unlinked passenger trips...”

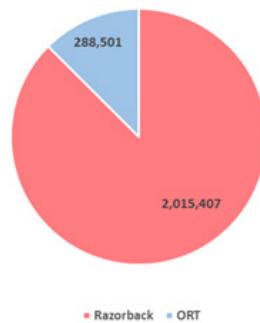


Figure 11.3- Annual Unlinked Trips for 2013

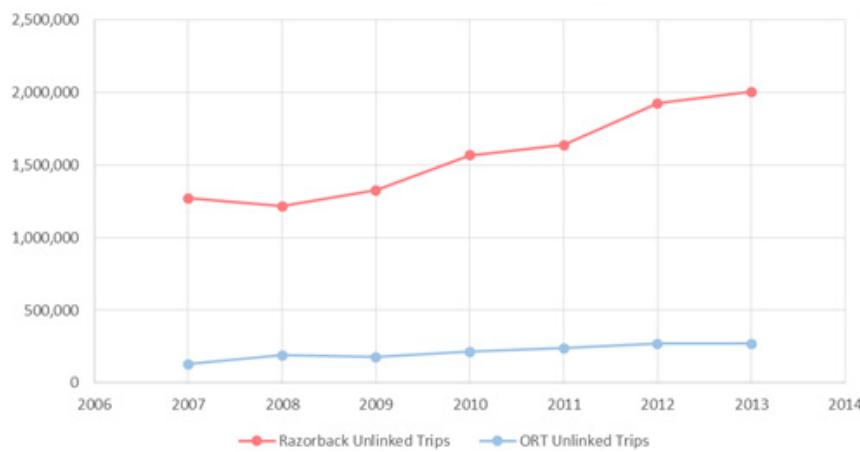


Figure 11.4- Fixed Route Annual Unlinked Trips

System information and performance measures may be found for all U.S. public transit providers through the National Transit Database at the following link: <http://www.ntdprogram.gov/ntdprogram/cs?action=showRegionAgencies®ion=6> (Figure 11.3 and Table 11.8).

NATIONAL TRANSIT DATABASE PERFORMANCE MEASURES

Fixed route transit performance measures for service effectiveness are calculated for each public transit system as part of the National Transit Database reporting requirements. Two of the performance measures for service effectiveness are based on (1) the number of fixed route unlinked trips per revenue mile and (2) the number of unlinked fixed route trips per revenue hour. These measures are reported from 2007 to 2013 for both ORT and Razorback Transit based on the NTD reports.

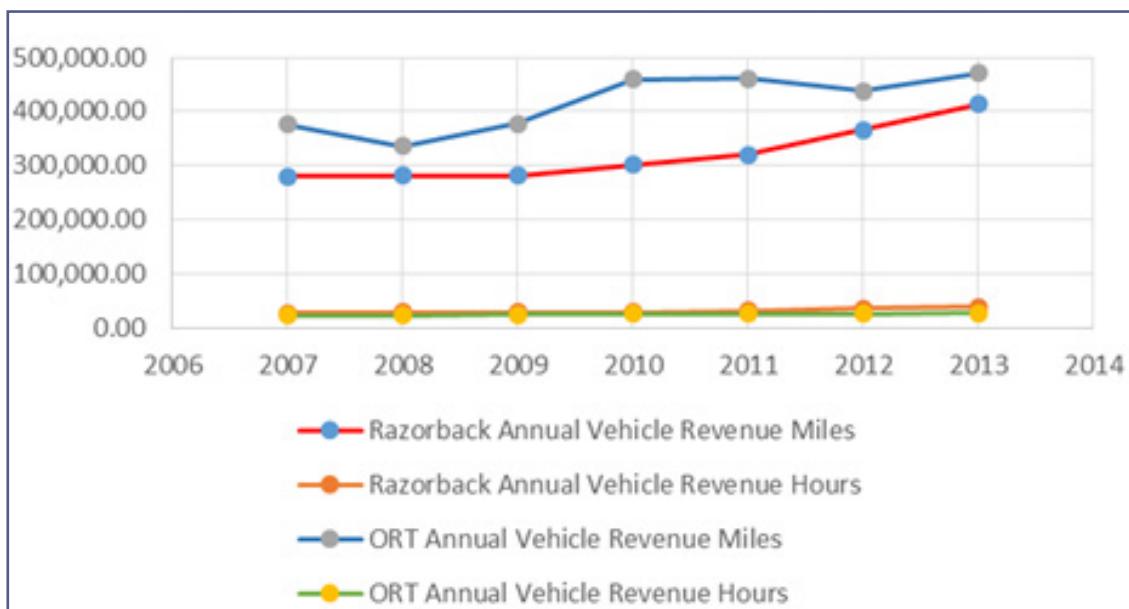


Figure 11.5- Vehicle Miles and Revenue Hours

Ozark Regional Transit Fixed Route Service Measures					Razorback Transit Fixed Route Service Measures				
Year	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Unlinked Fixed Route Trips per Revenue Mile	Unlinked Fixed Route Trips per Revenue Hour	Year	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Unlinked Fixed Route Trips per Revenue Mile	Unlinked Fixed Route Trips per Revenue Hour
2007	376,130	23,175	0.34	5.50	2007	279,670	27,870	4.55	45.64
2008	386,248	23,566	0.56	7.97	2008	281,280	29,044	4.32	41.88
2009	378,216	24,557	0.47	7.25	2009	281,098	29,181	4.72	45.50
2010	459,491	26,826	0.46	7.92	2010	302,288	29,937	5.19	52.37
2011	460,852	26,643	0.52	8.93	2011	320,554	32,335	5.11	50.69
2012	437,791	26,207	0.62	10.28	2012	365,798	36,912	5.26	52.15
2013	470,968	27,983	0.57	9.59	2013	413,245	39,636	4.86	50.63

Table 11.8 - Fixed Transit Route Service Measures (ORT and RT)

The unlinked fixed route trips per revenue hour has increased for ORT from under six trips in 2009 to over 9.5 trips in 2013. Razorback Transit unlinked fixed route trips has remained over 50 trips per hour over the last four years.

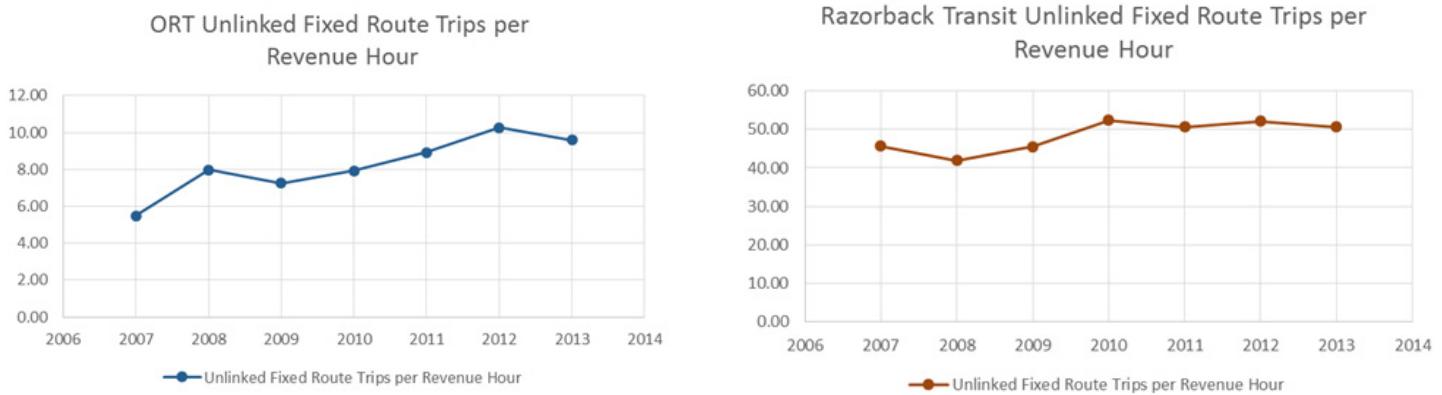


Figure 11.6- Unlinked Fixed Route Trips per Revenue Hour (ORT and RT)

Unlinked trips per revenue hour for ORT has fluctuated between 0.50 and 0.60 trips per revenue mile. Razorback transit unlinked trips per revenue mile has averaged over five trips over the past four years.

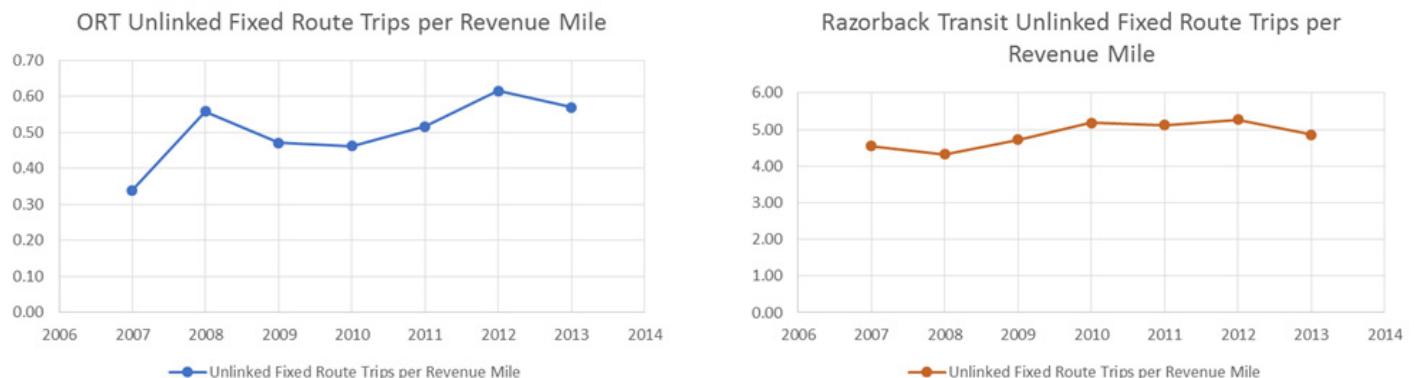


Figure 11.7- Unlinked Fixed Route Trips per Revenue Mile (ORT and RT)

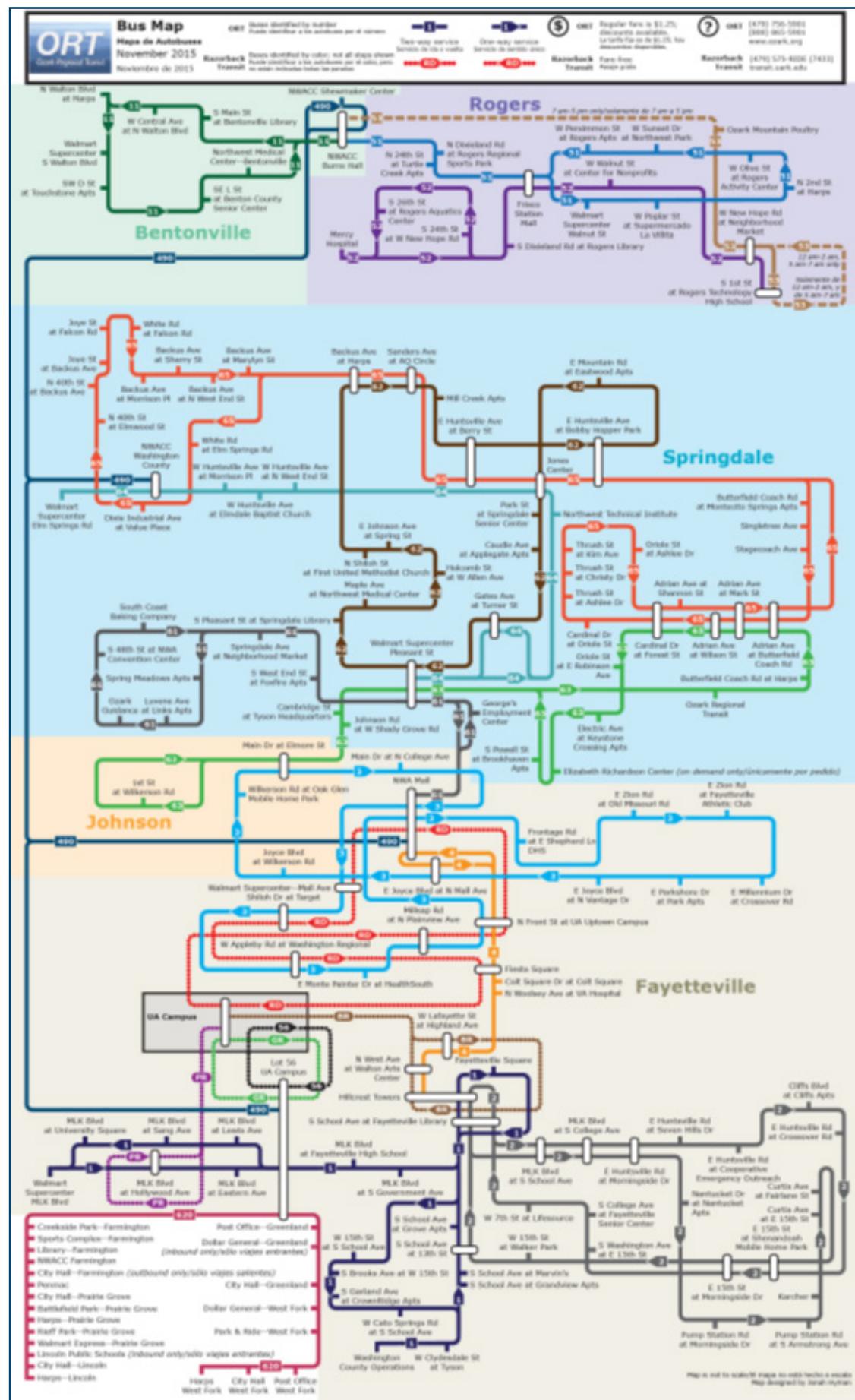


Figure 11.8- ORT Bus Map

FEDERAL FUNDING

The Urbanized Area Formula Program funds are apportioned to designated recipients within urbanized areas with populations of 200,000 or more. NWARPC is the designated recipient for the Fayetteville-Springdale-Rogers AR-MO Urbanized Area.

The Urbanized Area is apportioned annually approximately \$120,000 in Section 5339 funds and \$2.3 million in Section 5307 FTA Urbanized Area Formula Program funds. These funds are programmed by the NWARPC and are utilized by both ORT and Razorback Transit for capital, operating assistance, preventative maintenance, ADA Paratransit Service, and Enhancements.

The rural area is also apportioned Section 5311 funds and these are used by ORT to provide demand response service.

MAP-21/FAST Act expanded the use of Section 5307 funds for operating expenses. Under current regulations, each transit system that operates 100 or fewer buses may use these funds for operating expenses.

	Total Cost	Federal Share	Local Share
Section 5307 Operating and Capital	\$3,707,922	\$2,362,405	\$1,345,517
Section 5339 Capital	\$ 151,189	\$ 120,951	\$ 30,238

Bus and Bus Facilities Program (49 U.S.C. §5339) – Transit

MAP-21/FAST Act created a new formula grant program for bus and bus facilities that replaced the Section 5309 discretionary program. The program provides funding for replacing, rehabilitating, and purchasing new buses and bus-related equipment and facilities. The Urbanized Area receives approximately \$241,527 annually in Federal funds matched by \$60,382 in local funds for the replacement of vehicles and related capital projects. Funding is utilized by both Razorback and Ozark Regional Transit for replacing buses.

Enhanced Mobility of Seniors and Individuals with Disabilities Program (49 U.S.C. §5310)

Enhanced Mobility of Seniors and Individuals with Disabilities Program is a formula assistance program to improve mobility for seniors and individuals with disabilities. Public transportation projects may be implemented in areas where public transportation is insufficient, inappropriate, or unavailable; public transportation projects that exceed the requirements of the Americans with Disabilities Act (ADA); projects that improve access to fixed-route service and decrease reliance on complementary paratransit; and alternatives to public transportation projects that assist seniors and individuals with disabilities. The Section 5310 program funding was \$156,606 in 2013 and \$206,922 in 2014 for the Urbanized Area.

Rural Area Formula Program (49 U.S.C. §5311)

The Rural Area Formula Program is a formula grant program that provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000. Currently, Ozark Regional Transit receives approximately \$140,000 per year in Federal funds and requires a 20 percent to 50 percent local match depending on the type of project. ORT provides demand response service to the rural areas within the MPA.



HUMAN SERVICE PROVIDERS

While ORT and Razorback Transit provide fixed route transit service throughout the region, there are many other transit providers in the area. Human service agencies provide a vital role in the overall transportation needs of the region. They provide access to agency services and/or to meet the basic, day-to-day mobility needs of transportation-disadvantaged populations, especially individuals with disabilities, older adults, and people with low incomes.

There are four human service agencies in the Northwest Arkansas region actively participating in AHTD administered transit programs Section 5310. Most of these agencies provide service to specific clientele for shopping, medical appointments, social, work, or education activities.

TRANSIT COORDINATION PLANNING

Within the MPA area there are two public transit systems, Razorback Transit and ORT, as well as a number of human service agencies that provide transit options for specific populations.

In January 2013, AHTD published the Arkansas Statewide Transit Coordination Plan: 2012 (TCP). The TCP replaces the sixteen separate local transit coordination plans that were developed in 2007 and 2008 as a result of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). In Northwest Arkansas, the TCP replaces the NWA Public Transit-Human Services Coordinated Transportation Plan (Coordination Plan).

The Federal transportation legislation under Moving Ahead for Progress in the Twenty-First Century (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act), requires that projects for certain FTA programs be derived from a locally developed, coordinated public transit-human services transportation plan. The TCP applies to Section 5310: Enhanced Mobility of Seniors and Individuals with Disabilities Program, which is a consolidation of the old Section 5310 and Section 5317 programs, and includes the New Freedom program. These requirements are aimed at improving transit services for persons with disabilities, older adults and individuals with low incomes and ensuring that communities are coordinating transit resources provided through multiple federal programs.

For guidance on the administration and preparation of grant applications for the Enhanced Mobility of Seniors and Individuals with Disabilities under 49 U.S.C. 5310, FTA has issued Circular 9070.1G. This revision of an earlier circular incorporated provisions of MAP-21/FAST Act and includes the most current available guidance as of the date of publication (6-6-14).

The ultimate purpose of the Coordination Plan is to provide comprehensive strategies, or opportunities, for meeting local needs. Nine major strategies were developed as a guide to develop and implement projects. These strategies will be revisited every five years and modified as appropriate.

- Maintain existing levels of service is essential.
- Improve access and provide additional, affordable transportation service.
- Build a local coalition of interested parties for transportation service.
- Develop a coordinated local system to provide transportation information to public transportation dependent persons and the general public.
- Provide more efficient and effective service delivery.
- Provide a better quality of life for public transportation dependent persons.
- Coordinate an approach for the development of model contracts or agreements for public, private, and nonprofit providers.
- Coordinate services with emergency response agencies.
- Research new programs, technology and educational/training opportunities that could enhance transportation services.

OTHER TRANSIT SERVICES

School Bus System K-12

The region has fifteen public school districts. The Arkansas Division of Public School Academic Facilities & Transportation reports that in the 2014-2015 school year Average Daily Transported (ADT) school children by bus in Benton and Washington Counties was approximately 60,000 per day (Table 11.9).

District Description	ADT_Q1	ADT_Q2	ADT_Q3	ADT_Q4
BENTONVILLE SCHOOL DISTRICT	14877	14681	14531	14565
DECATUR SCHOOL DISTRICT	244	329	341	344
ELKINS SCHOOL DISTRICT	1008	1000	1003	1021
FARMINGTON SCHOOL DISTRICT	1809	1787	1777	1814
FAYETTEVILLE SCHOOL DISTRICT	4138	4055	4013	4084
GENTRY SCHOOL DISTRICT	1066	1050	1043	1049
GRAVETTE SCHOOL DISTRICT	1611	1622	1569	1586
GREENLAND SCHOOL DISTRICT	651	650	648	654
HAAS HALL ACADEMY	12	12	12	12
LINCOLN SCHOOL DISTRICT	1033	1049	1034	1068
PRAIRIE GROVE SCHOOL DISTRICT	1740	1730	1728	1753
PEA RIDGE SCHOOL DISTRICT	1134	1130	1137	1145
ROGERS SCHOOL DISTRICT	10738	10561	10373	10509
SILOAM SPRINGS SCHOOL DISTRICT	1859	1943	1949	1942
SPRINGDALE SCHOOL DISTRICT	18645	18437	18285	18508
WEST FORK SCHOOL DISTRICT	862	854	839	860
<hr/>				
Total	61425	60891	60282	60914

Table 11.9 - School District Average Daily Transported

Inter-City Bus Transportation

The Jefferson Lines Bus Service travels through Northwest Arkansas from Fort Smith to Joplin. A Jefferson Lines depot is located in Fayetteville at 3075 Wedington Drive with the hours of Monday through Saturday, 9:00 AM to 5:00 PM. Another stop is located in Rogers at 4601 W. Walnut Street. The Rogers location hours are Monday through Saturday from 6:30 AM to 3:00 PM. The Jefferson Lines operates in thirteen states including the Arkansas contiguous states of Texas, Oklahoma, Kansas, and Missouri. Other Arkansas stops include Clarksville, Conway, Fort Smith, Harrison, Little Rock, Ozark, Pine Bluff, and Russellville. Out-of-state nearby connections include Tulsa, Oklahoma, Joplin and Springfield in Missouri, and Coffeyville, Kansas.

TRANSPORTATION ALTERNATIVES ANALYSIS

For more than a decade, various groups have promoted interest in a rail transit project that would serve the north-south corridor in Washington and Benton Counties in Northwest Arkansas. The advocacy efforts captured the interest of public officials and private individuals and interests. The concept has been studied or addressed in no fewer than seven planning studies and reports since 2004. These are:

1. The Potential for a NWA Regional Light Rail System. Beta Rubicon, 2004
2. Interstate 540 Improvement Study. Parsons Transportation Group, 2006
3. NWA Rail: Visioning Rail Transit in Northwest Arkansas. UA Community Design Center, 2007
4. Northwest Arkansas Razorback Regional Greenway TIGER II Grant Application. NWARPC, 2010
5. Northwest Arkansas Transit Development Plan. Connetics, 2010
6. Northwest Arkansas Western Beltway Feasibility Study. Parsons Brinkerhoff, 2011
7. Northwest Arkansas Regional Development Strategy. Market Street, 2011

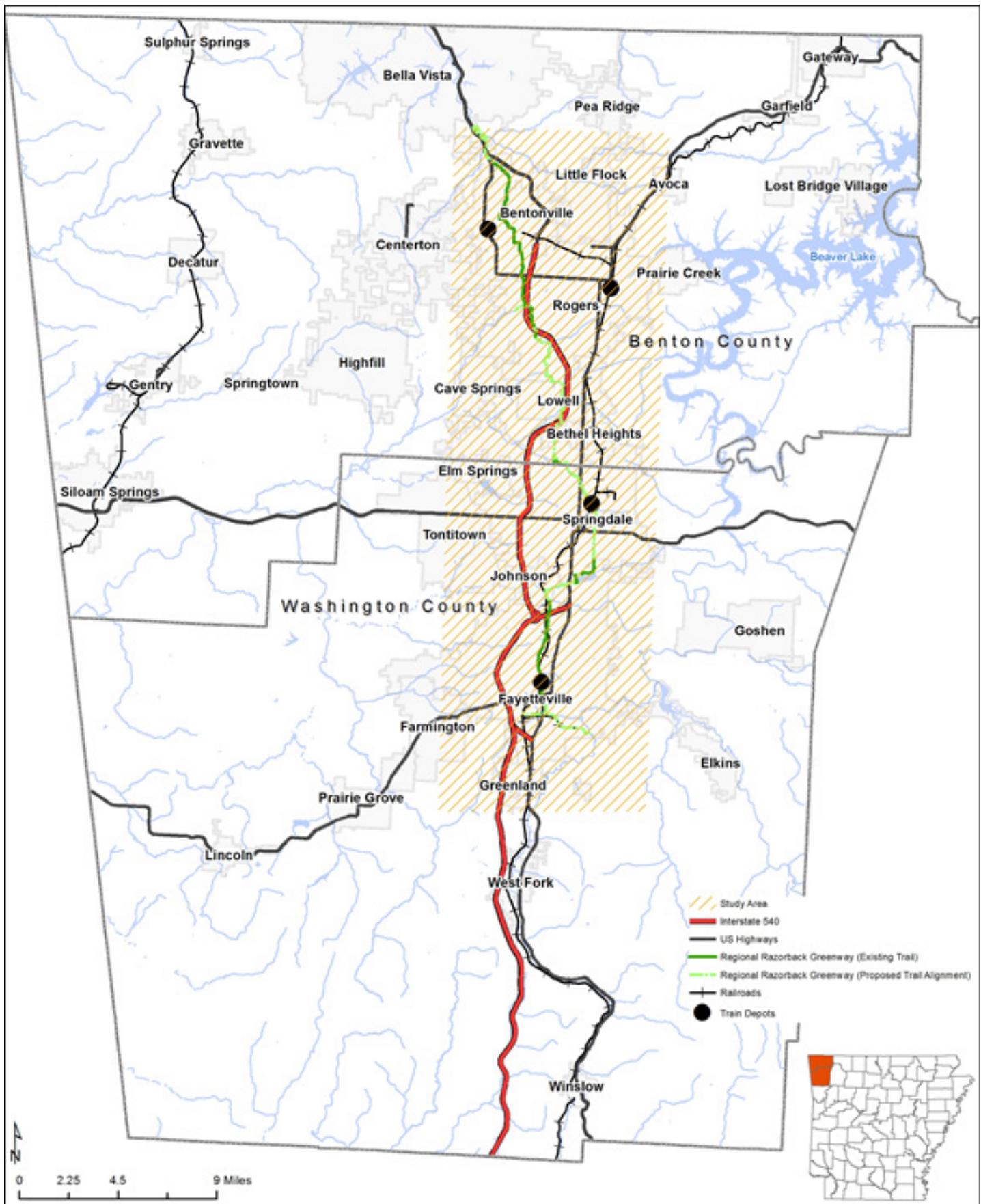
NWARPC responded to the widespread interest by obtaining special Federal funding to conduct an Alternatives Analysis Study in the 40-mile north-south urban corridor. To the greatest extent possible, the Study approach followed the planning guidelines of the Federal Transit Administration (FTA), especially those that apply to New Starts and Major Capital Investment funding.

A significant difference between the Federal planning guidelines and previous studies is that the Alternatives Analysis Study approach required a location-neutral and mode-neutral examination of the options within the broad category of fixed-guideway transit. The selection of alternative locations and the modal (vehicle) technologies were studied and included a review and discussion regarding a common misconception that light rail vehicles can operate on freight rail lines. In the current regulatory environment in the U.S. this alternative is not permitted.

The Study was completed in fall 2014 and NWARPC accepted the final Alternatives Analysis Study (Map 11.1). The NWARPC members accepted the Alternatives Analysis Study with the understanding that none of the alternatives considered are financially feasible at this time based on low ridership forecasts, high capital costs, and not meeting the FTA threshold to receive Federal funding. The NWARPC also considered the “Path Forward” to focus on a potential future commuter rail corridor following the Arkansas and Missouri (A&M) Railroad as having the most potential for a future fixed-guideway system. The alternatives studied were Light Rail (new location in I-49 corridor), Commuter Rail (in A&M Railroad Corridor), and Bus Rapid Transit on Hwy. 71B.

Key Findings:

- Alternatives studied are not financially feasible. None of the alternatives considered are financially feasible at this time based on low ridership forecasts, high capital costs, and not meeting the FTA threshold to receive Federal funding.
- High Capital Costs. New location Light Rail: \$2.286 billion; Commuter Rail: \$664.0 million; Bus Rapid Transit: \$97.8 million.
- Low Ridership Forecast. New location Light Rail: 356 daily riders; Commuter Rail: 1,368 daily riders; Bus Rapid Transit: 378 daily riders.
- New “double track” is recommended for Commuter Rail within the A&M Corridor. Light rail vehicles cannot operate on active freight rail lines. However, more modern, higher performing, and quieter commuter vehicles such as diesel multiple units (DMU’s) are a possible alternative adjacent to freight rail lines on new track (double track).
- The Locally Preferred Alternative (LPA) is the Commuter Rail on the right-of-way of the A&M Railroad, along with a new location segment from Bentonville to Bella Vista.



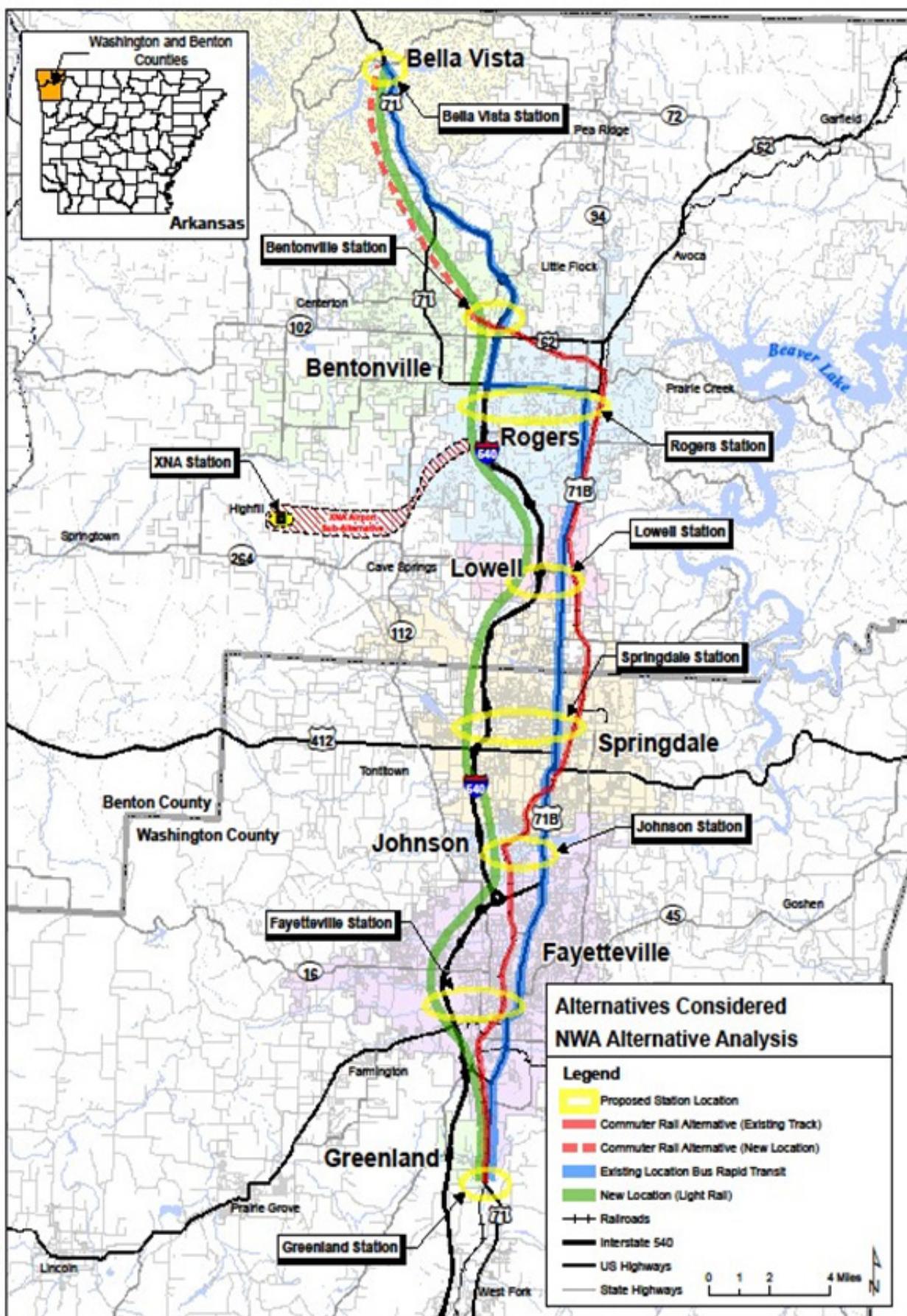
Map 11.1 - Alternatives Analysis Study Area

The Study points out that without a transit component included in the NWARPC Travel Demand Model, the Study was restricted in modeling transit ridership. NWARPC worked throughout the 2015 year to update the travel demand model to include the transit component into the model in order to meet recommendations of incorporating new transit modes (Map 11.2).

The Path Forward:

- Enhance and support existing and emerging transit markets. Northwest Arkansas communities should work with NWARPC to improve the region's existing public transit service and to get "Transit Ready."
- Plan for complete, comprehensive, and coordinated transit service (existing and potential new modes). Whether Federal funding is sought or not, a successful fixed guideway project must be developed side by side with a sound bus service expansion plan.
- Promote transit-supportive development policies. Transit-supportive development policies may go a long way toward making a project eligible for Federal funding for New Starts projects. Even if Federal funds are not received or not sought, the affected municipalities in NWA should work to enhance and develop a comprehensive set of zoning and public finance policies to promote walkable, sustainable neighborhoods in the corridor.

The complete report including the technical memorandum may be found at: [http://nwarpc.org/transportation/
alternatives-analysis/](http://nwarpc.org/transportation/alternatives-analysis/)



Map 11.2 - Alternatives Considered in the Alternatives Analysis Study

THE NORTHWEST ARKANSAS TRANSIT DEVELOPMENT PLAN (TDP)

The 2010 Transit Development Plan was developed in order to create a “blue-print” for expanding transit services in the Northwest Arkansas region and highlighted service improvements recommendations for three periods:

- The Near-Term Plan reflecting Years 1-2 of the 10-year TDP time period. No additional funds have been assumed for transit during this time period. Thus, near-term recommendations focus on cost neutral service adjustments that will increase efficiencies.
- The Short-Range Plan reflecting Years 3-5 of the TDP. The TDP assumes additional funds are available for transit during this time period. Recommendations reflect the transition of the existing limited transit network to a more robust regional network.
- The Long-Range Plan reflecting Years 6-10 of the TDP. Recommendations reflect the continued growth of transit services, with expanded geographic coverage, longer spans of service on routes and the introduction of weekend service.

A major benefit of the TDP service plan is increased accessibility to transit. Table 11.10 represents projected 2010 population and employment within $\frac{1}{4}$ mile of proposed transit services in each TDP service plan. Accessibility increases significantly with the proposed Short-Range and Long-Range plans.

Demographic		Near-Term	Short-Range	Long-Range
Population	Population Within $\frac{1}{4}$ Mile	95,036	130,591	199,273
	% of Regional Population	21.8%	30.0%	45.8%
Employment	Employment Within $\frac{1}{4}$ Mile	105,328	128,657	156,263
	% of Regional Employment	45.6%	55.7%	67.7%

Table 11.10 - 2010 Population and Employment within 1/4 Mile of Proposed Transit Service

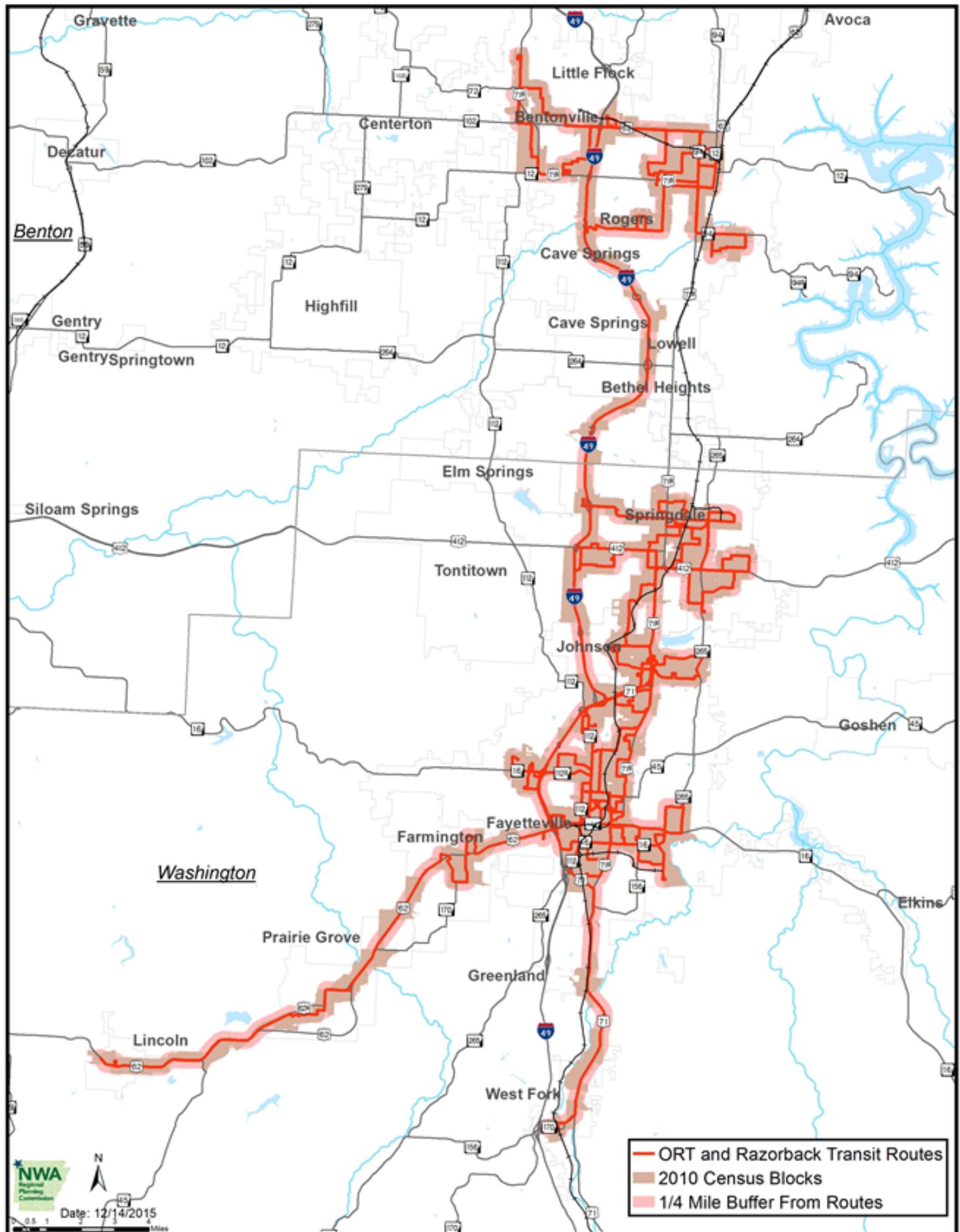
Recent data updates for both population and employment indicate that percentages of the total population in the $\frac{1}{4}$ mile corridor are comparable to what the TDP found in 2010, while the employment percentage from the total regional employment appears to be currently at the projected long-range level based on the best available data. Table 11.11, Map 11.3 and Map 11.4 were created using the 2010 Census Bureau data at the block level and the 2015 InfoGroup Employment database. A buffer of $\frac{1}{4}$ mile from both transit agencies routes was created and the population within the blocks that had the majority of the area in this buffer was summarized. Employment centers from the 2015 InfoGroup database were also selected in the same buffer area and the total employment at location was also summarized.

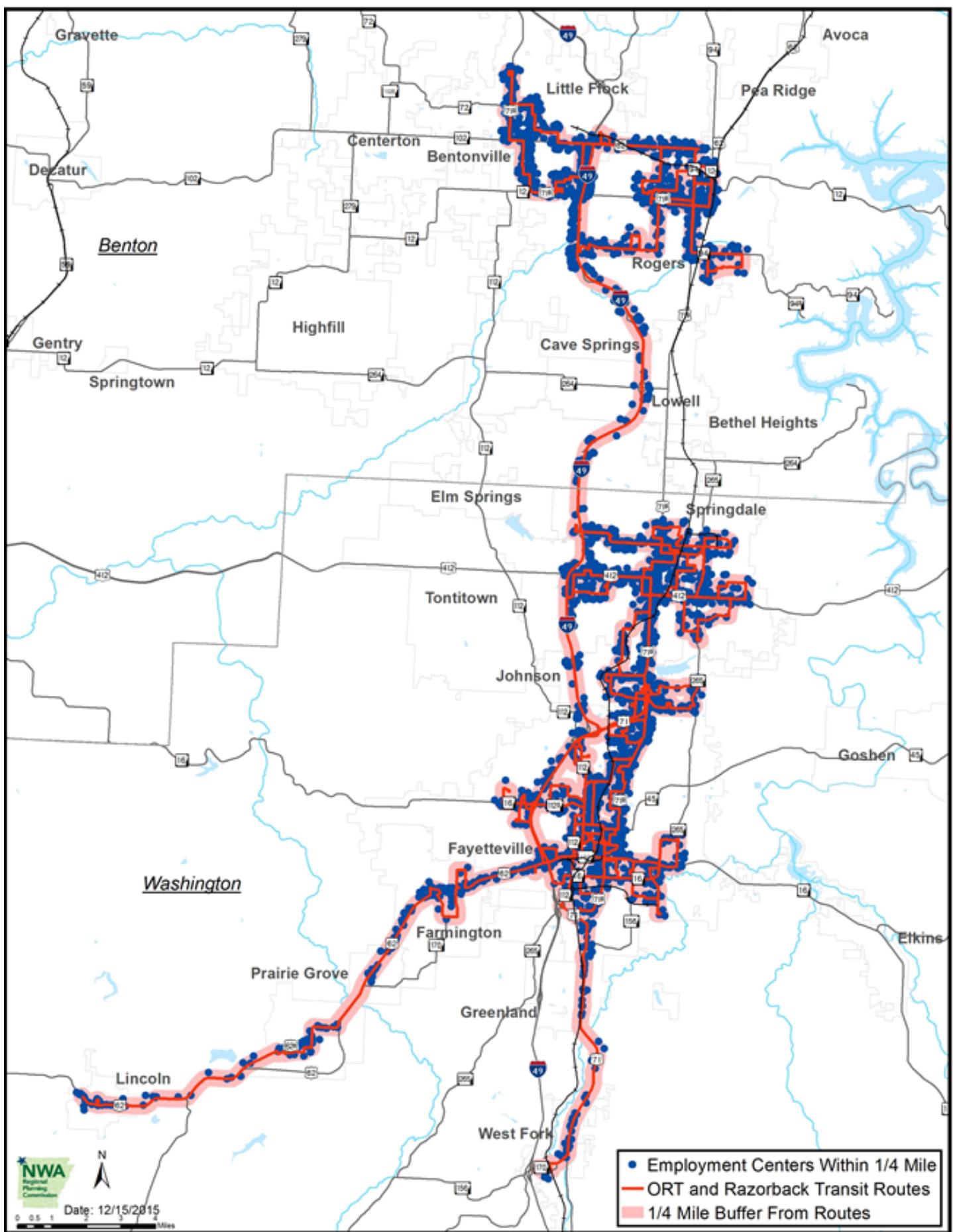
Demographic		
Population*	Population Within 1/4 Mile	116,199
	% of Regional Population	27%
Employment**	Employment Within 1/4 Mile	134,438
	% of Regional Employment	67%

*Population – Source: 2010 US Census Blocks

**Employment – Source: InfoGroup 2015 Employment Database

Table 11.11 - 2010 Census Bureau Population and 2015 Employment Data within $\frac{1}{4}$ Mile of Transit Routes

Map 11.3 - 2010 Census Bureau Blocks Population Within $\frac{1}{4}$ mile from Transit Routes



Map 11.4 - 2015 Employment Centers Within ¼ mile from Transit Routes

Table 11.12 and Table 11.13 as presented in the TDP illustrate a summary of operating requirements for each TDP service plan. Expansion of service will result in the need for \$22.7 million to cover annual operating and maintenance expenditures for the two transit systems upon full implementation of the TDP. New equipment and facilities will also be needed, such as expanded bus fleets (including large buses), passenger transit centers, a new maintenance facility, and improved passenger amenities at bus stops. Almost \$63 million has been identified for vehicle and facility improvements. The proposed expansion of bus service in the TDP includes service on major roadways. Routes serving those major roadways should be operated with large buses (i.e., 30-40' buses). Safety (pedestrian and vehicular) must be considered with the placement of bus stops on those major roadways, and bus pullout lanes should be pursued where appropriate.

	Current	Near-Term	Short-Range	Long-Range
Peak Buses	12	11	34	59
Annual Hours	29,116	29,116	122,655	234,032
Annual Miles	496,862	488,788	1,570,137	3,178,511
Annual O&M Costs	\$2,600,000	\$2,600,000	\$10,744,900	\$20,201,600

Table 11.12 - Ozark Regional Transit – 2010 and Projected Fixed-Route Operating Requirements

	Current	Near-Term	Short-Range	Long-Range
Peak Buses	16	17	18	18
Annual Hours	33,210	33,437	36,426	36,426
Annual Miles	378,622	378,909	394,997	394,997
Annual O&M Costs	\$2,350,000	\$2,363,6000	\$2,542,900	\$2,542,900

Table 11.13 - Razorback Transit 2010 and Projected Fixed-Route Operating Requirements

The financial analysis that was completed for the TDP identified projected costs (operations and maintenance, and capital) and potential revenue sources over the TDP's 10-year period. The expansion of transit services would require a significant commitment of local funding.

Finally, the TDP mentioned that the expansion of transit services in the Northwest Arkansas region should be considered as part of a comprehensive strategy that offers viable choices to the single vehicle occupant. This strategy should include other initiatives such as carpool and vanpool programs, and other transportation demand management (TDM) strategies.

The TDP recommendations were based on a thorough analysis of the existing conditions and also had an extensive public input and public survey components. In addition to the standard public outreach process, the consultants also conducted a transit Ridecheck Survey on 100 percent of the ORT and Razorback fixed-route service (Boardings and Alightings by stop, trip, and route) and also an On-Board Survey for trip data (origin, destination, trip purpose) and demographics. The on-board survey was also utilized in the enhancement of the Travel Demand Forecasting for the mode choice validation, as the best available data for this purpose. In the Blue-Print for model enhancement, delivered by Parsons Brinkerhoff in 2015, the need for a more adequate on-board survey was identified in support of modeling existing transit. This survey would collect more information about access and egress modes, transfer information, time of day or certain traveler characteristics necessary in order to expand it in the dimensions necessary for detailed mode choice calibration. An updated, model-focused on-board survey was identified as a need. This on-board survey could be developed in an update of the Transit Development Plan. The current updated model now has the capability to model scenarios that would include increasing service on all existing transit routes, increasing service on select routes, adding new routes and also changing existing routes.

Potential Transit Service Needs

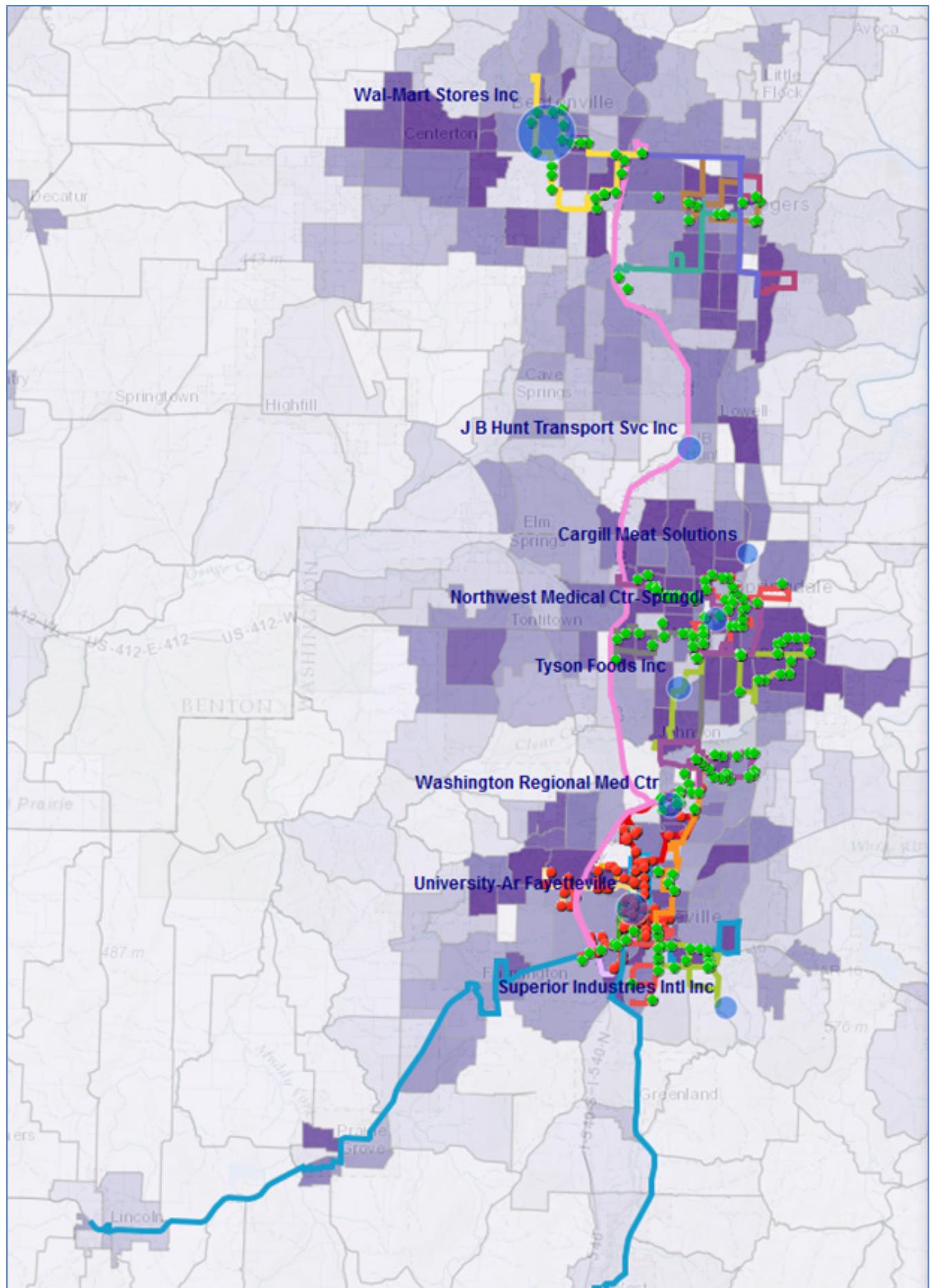
The 2010 Transit Development Plan analyzed demographic data and growth elements compared to the existing transit network to determine areas where new transit services or expanded transit services may be warranted. Potential service expansion needs were identified as follows:

Benton County

- **New Growth Areas** – Population forecasts reflect significant growth in areas west of Bentonville and west/southwest of Rogers. New local route services may be warranted in these areas.
- **Low Income Areas** – The demographic analysis identified some concentrations of low income/zero auto households east of Rogers where expanded/new local transit services may be warranted.
- **Elderly Services** – The community of Bella Vista has a fairly high concentration of elderly citizens, along with the central area of Rogers and Siloam Springs. Services oriented towards the elderly should be considered for these areas.
- **Siloam Springs** – This community is located in the far west portion of Benton County. There are concentrations of population and employment in this community, but there is no existing transit service. Local route service with connections to Bentonville/Rogers should be considered.
- **Commuter Services** – Benton County is home to major employers, such as Wal-Mart. Analysis has identified concentrations of employees that live along the I-49 corridor. Regional commuter services to these major employment centers warrants consideration.

Washington County

- **New Growth Areas** – Population forecasts reflect significant growth in areas west of I-49, directly west of Springdale (Tontitown), the east side of Springdale, West Fayetteville and Farmington. New local route services may be warranted in these areas.
- **Low Income Areas** – The demographic analysis identified moderate concentrations of low income/zero auto households southwest of Fayetteville.
- **University of Arkansas** – The University of Arkansas had an undergraduate and graduate student population of close to 20,000 in 2010 (the enrollment was near 27,000 in 2015). Student transit service needs are presently accommodated by Razorback Transit, although there may be potential to increase usage through route alignment and service frequency modifications. Faculty and staff come from longer distances, with many coming from the Springdale area. Expanded transit service to the University of Arkansas from other areas of the region is likely warranted.
- **Commuter Services** – Besides the University of Arkansas, there are other major employers in Washington County including Tyson Foods in south Springdale. Washington Regional Medical Center and the Northwest Medical Center in Springdale are two major medical facilities with large employment bases. There is also a significant amount of retail employment around the Northwest Arkansas Mall area. Travel to these areas comes from all over the two-county area, and may warrant regional/commuter transit services.



Map 11.5 - ORT and Razorback Transit 2010 Routes and Bus Stops and 2040 Population Density (by TAZ)

Service Needs in Areas Presently Served by Transit

There are other factors to consider besides the proximity of a transit route alignment when traveling to a particular destination. Those factors include:

- Route alignment directness
- Span of service
- Availability of weekend service
- Service frequencies

For example, the central areas of Bentonville and Rogers are served by ORT routes. But, it can be argued that these areas are underserved, for these routes operate in loop patterns (resulting in long transit travel times), at infrequent service levels (60-minute frequencies) and they do not operate in the evenings or on weekends. Residents that have access to an automobile are unlikely to consider using transit under these conditions. Thus, there is a market for increasing transit usage in existing service areas by addressing service deficiencies. It is, of course, important to note that these existing deficiencies exist today because of funding constraints.

Figure 11.9 and Figure 11.10 display a comprehensive view of all demographic groups outlined in the TDP Technical Memorandum. Color scales range from light green (low density) to dark blue (high density) but are depicted at different scales. Together, these two maps identify the areas with the strongest propensity for transit use but do not depict specific numbers here.

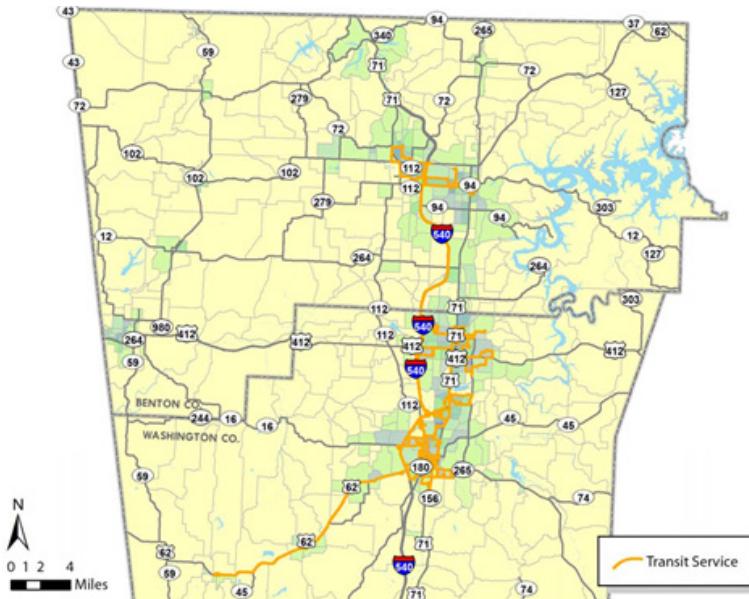


Figure 11.9 - 2010 Comprehensive Transit Propensity



Figure 11.10 - 2030 Comprehensive Transit Propensity

FUTURE OF PUBLIC TRANSPORTATION – NEXT STEPS

- Prepare a transit development plan for the region. The transit development plan should include both ORT and Razorback Transit.
- Recommend ORT conduct a public Relations Campaign / Rebrand Ozark Regional Transit.
- Recommend ORT continue and expand route testing with NWA businesses and municipalities.
- Establish region-wide transit oriented design (TOD) best practices.