



CHAPTER 3. POPULATION AND LANDUSE

OVERVIEW OF EXISTING SOCIO-ECONOMIC CONDITIONS

The NWARPC is the federally designated Metropolitan Planning Organization (MPO) for Benton and Washington Counties, Arkansas and a portion of McDonald County, Missouri.

The Urbanized Area for this region, as identified by the U.S. Census Bureau includes Benton and Washington Counties and a portion of McDonald County.

The U.S. Census Bureau designated Fayetteville-Springdale-Rogers Metropolitan Statistical Area (MSA) includes Benton County, Washington County and Madison County, Arkansas and McDonald County, Missouri (four-county area).

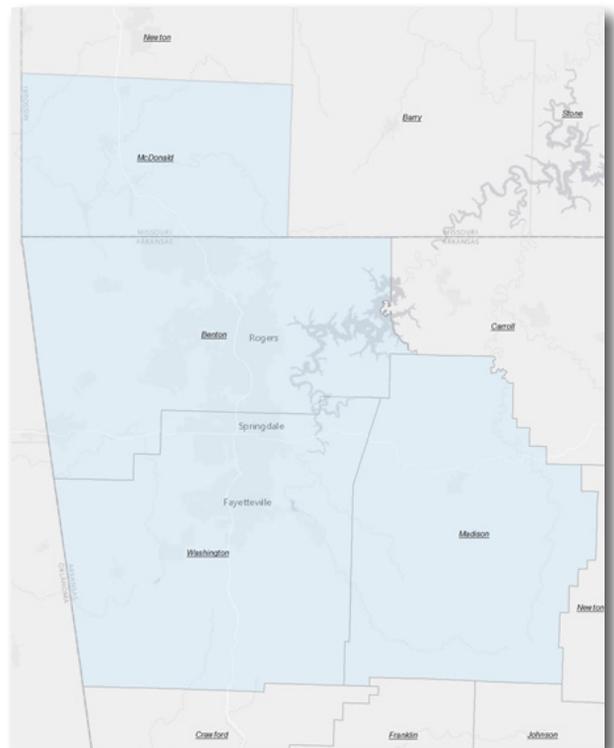
For the purpose of this chapter, “Northwest Arkansas” will refer to the two-county area of Benton and Washington Counties in Arkansas, and, when specified, will include the portion of McDonald County, Missouri.

Geographic Profiles

Metropolitan Planning Area (MPA) population characteristics:

Benton County

- 153,406 based on the Census Bureau’s 2000 population.
- 221,339 based on the Census Bureau’s 2010 population.
- This represents a 44.3 percent increase and an annual growth rate of 3.73 percent.
- On average there were 6,793 people per year moving to Benton County between 2000 and 2010.
- 242,321 based on the Census Bureau’s 2014 annual population estimates.



Fayetteville- Springdale-Rogers, AR-MO MSA Area

- Contains nineteen incorporated cities.
- All or part of nine Benton County cities fell within the Census defined Urbanized Area in Census 2010, including the cities of Bella Vista, Bethel Heights, Bentonville, Cave Springs, Centerton, Little Flock, Lowell, Pea Ridge, Rogers and Springdale.
- Siloam Springs meets the Census Bureau's definition of an Urban Cluster.

Washington County

- 157,715 based on the Census Bureau's 2000 population.
- 203,065 based on the Census Bureau's 2010 population.
- This represents a 28.8 percent increase and an annual growth rate of 2.56 percent.
- On average there were 4,535 people per year moving to Washington County between 2000 and 2010.
- 220,792 based on the Census Bureau's 2014 annual population estimates.
- Contains thirteen incorporated cities.
- Nine of these cities fall within the urbanized area criteria. These cities include Elkins, Elm Springs, Farmington, Fayetteville, Greenland, Johnson, Springdale, Prairie Grove, and Tontitown.

Portion of McDonald County

- The portion of the MPA in McDonald County, Missouri had approximately 2,089 population and approximately 751 housing units (2010 Census).
- Pineville (the county seat for McDonald County), has a total area of 3.11 square miles, population of 791, and 287 households (2010 Census).
- Jane is a small community of 301 people in 2010 and is situated on Route 90 at the intersection with US 71.

Population Growth

In 2000, Benton and Washington County had a total population of 311,121 (2000 Census). In 2010, the two-county population grew to 424,404 (2010 Census). The Northwest Arkansas regional population has grown annually at a 3.15 percent rate from Census 2000 to 2010. This represents, on average, an annual population increase of about 11,328 in Northwest Arkansas. By July 2014, the Census Bureau estimated the annual resident population of the two counties in the interval from April 1, 2010 to July 1, 2014 to be 463,113 (242,321 for Benton County and 220,792 for Washington County). In this period of four years, there was an increase of 38,709 people in the two counties.

Figure 3.1 illustrates the population change in the three counties and the different population components of change from the U.S. Census Bureau's estimates between April 1, 2010 and July 1, 2014. Benton County added the highest total population numbers compared to the other two counties with 20,977 people. However, Washington County had the most births in this period, 14,012. Benton County also had the highest migration numbers due to high domestic migration.

In the MSA (four-county area), according to the ACS 2009-2013, the total population was 473,913 with a median age of 33.3. Figure 3.2 illustrates the population by age group as a percentage of the total population. The largest population group is from 35 to 44 years old (15 percent) followed by both the 35 to 44 and 45 to 54 years age groups (13 percent) as illustrated in Figure 3.2.

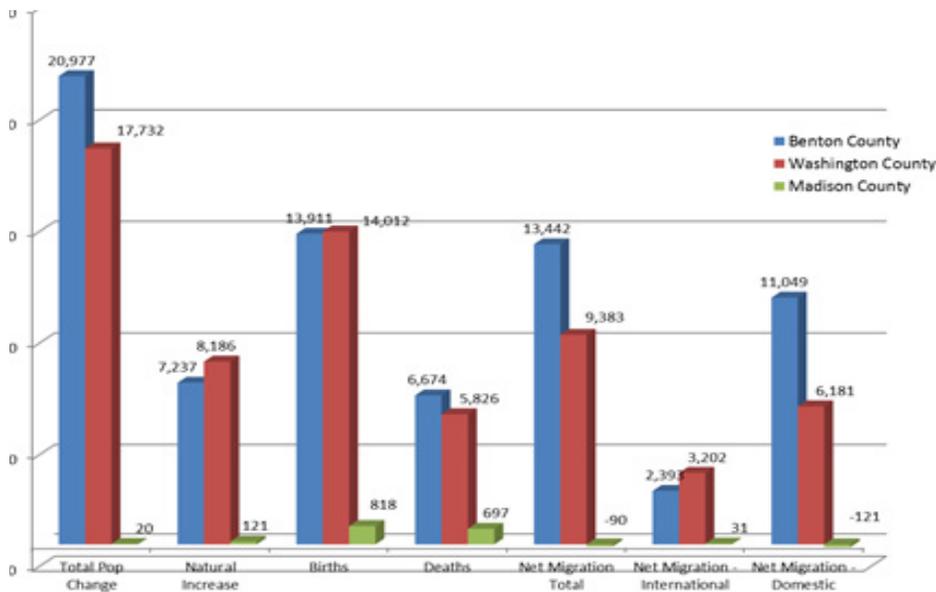


Figure 3.1 - Cumulative Estimates of Population Change 2010 to 2014

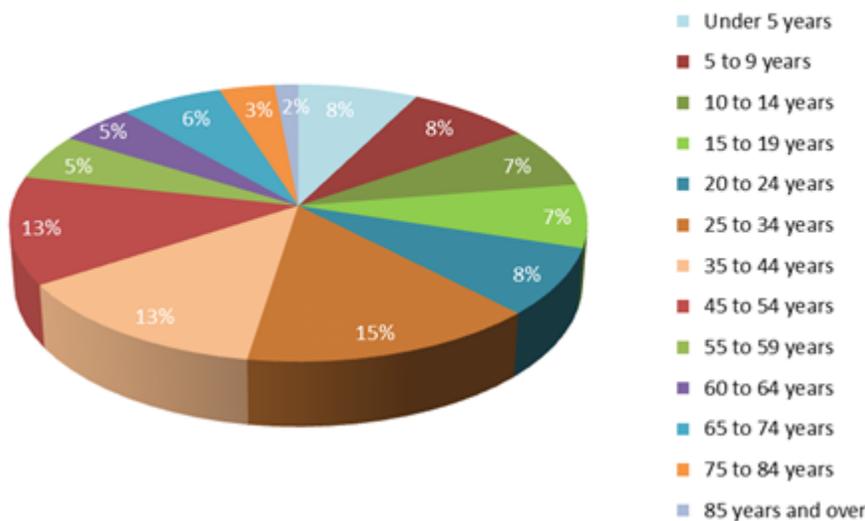
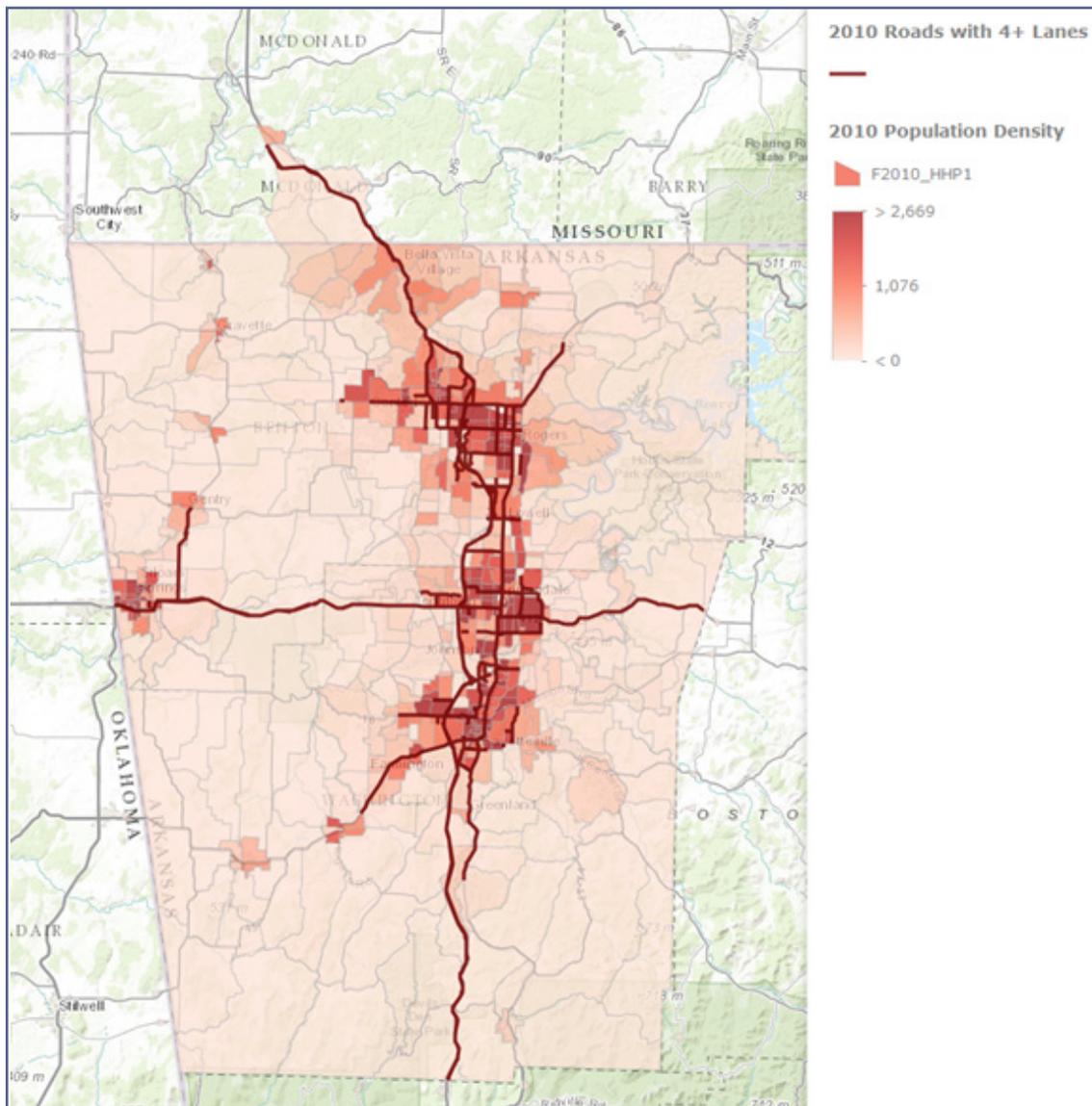


Figure 3.2 - Population by Age in the Fayetteville, Springdale, Rogers, AR-MO MSA

At the city level geography, Table 3.1 reflects the population trend by jurisdiction in the two-county area since 1990. The Census Bureau’s data clearly indicates an increase in population for the majority of the 32 city jurisdictions. A comparison has also been made between the last Census Bureau’s data (2010) and the latest estimates from the ACS 2009-2013. Looking at the trend for these last three years, only eight communities have a decreasing population and most of these are small communities, under 500 population (such as Highfill, Springtown, Sulphur Springs or Winslow). The majority of the cities in the two-county area are continuing to add population in their jurisdictions, with Fayetteville, Springdale and Rogers as still the most populated cities in the area.

In terms of population density, the highest density is concentrated in the urban corridor along I-49 and Hwy. 71B. Map 3.1 illustrates the 2010 population density by Traffic Analysis Zones (TAZ) geography as it was developed for the Northwest Arkansas Travel Demand Model.



Map 3.1 - Population Density by TAZ and Arterial Roads

Population Projections

During the 2035 Plan update, NWARPC projected that population for the two county area would reach approximately 691,274 by 2035. NWARPC is currently using the estimated projections that the Arkansas Census State Data Center (CSDC) published in 2015 to project the population growth through the year 2040.

According to CSDC, see Figure 3.3, Benton County’s population is projected at 404,736 while Washington County population is projected to be at 397,636 (a total of 802,372 people for the two county area by 2040). This projection was also utilized in determining the control total population for the NWARPC Travel Demand Model that has a forecast year of 2040 (see Map 3.2).

The CSDC develops detailed demographic data for counties in Arkansas and is using an Age and Gender cohort methodology in order to project population in Arkansas. This method also takes into consideration births and deaths as well as migration. The population projection graphics illustrated here used the 2015 CSDC projections for counties in Northwest Arkansas.

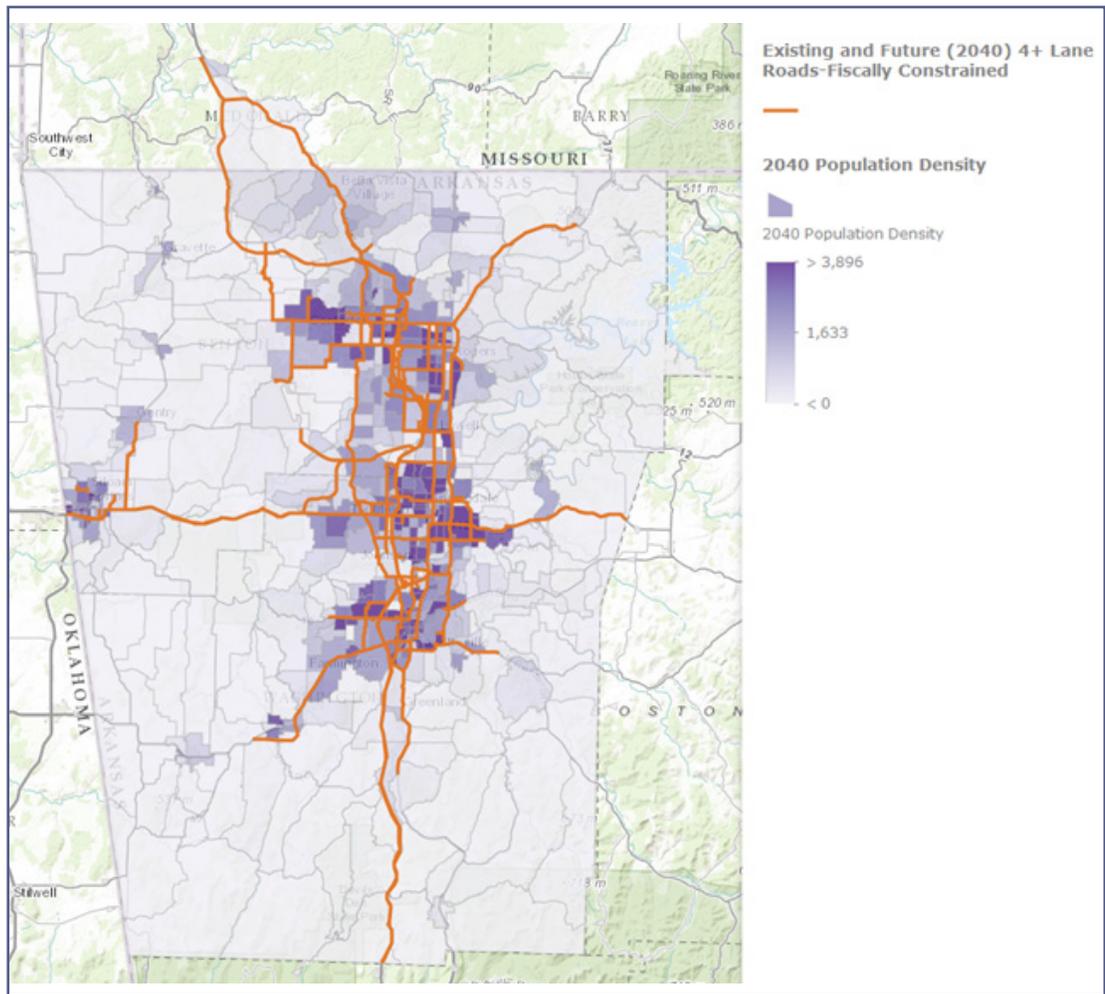
CITY/COUNTY	CENSUS	CENSUS	CENSUS	ACS
	1990	2000	2010	2009-2013
Unincorporated Benton Co.	33,079	44,009	42,483	n/a
AVOCA	269	423	488	543
BELLA VISTA	9,083	16,582	26,526	26,875
BENTONVILLE	11,257	19,730	35,301	37,131
BETHEL HEIGHTS	281	714	2,372	2,331
CAVE SPRINGS	465	1,103	1,931	2,069
CENTERTON	491	2,146	9,515	9,850
DECATUR	918	1,314	1,699	1,880
ELM SPRINGS - Benton Co.		13	137	n/a
GARFIELD	308	490	502	603
GATEWAY	65	116	405	464
GENTRY	1,726	2,165	3,425	3,243
GRAVETTE	1,412	1,810	3,113	3,000
HIGHFILL	84	379	583	482
LITTLE FLOCK	944	2,585	2,585	2,639
LOWELL	1,224	5,013	7,327	7,536
PEA RIDGE	1,620	2,346	4,794	4,877
ROGERS	24,692	38,829	55,964	57,603
SILOAM SPRINGS	8,151	10,843	15,039	15,378
SPRINGDALE - Benton Co.	907	2,011	6,554	n/a
SPRINGTOWN		114	87	76
SULPHUR SPRINGS	523	671	511	398
BENTON CO. TOTALS	97,499	153,406	221,339	227,439
Unincorporated Washington Co.	31,794	38,341	37,350	n/a
ELKINS	692	1,251	2,648	2,702
ELM SPRINGS - Washington Co.	893	1,031	1,756	n/a
ELM SPRINGS (Total)	893	1,044	1,893	1,722
FARMINGTON	1,322	3,605	5,974	6,085
FAYETTEVILLE	42,099	58,047	73,580	75,602
GOSHEN	589	752	1,071	1,123
GREENLAND	757	907	1,294	1,417
JOHNSON	599	2,319	3,354	3,436
LINCOLN	1,460	1,752	2,249	2,219
PRAIRIE GROVE	1,761	2,540	4,426	4,539
SPRINGDALE - Washington Co.	29,034	43,787	64,195	n/a
SPRINGDALE (Total)	29,941	45,798	70,749	72,070
TONTITOWN	460	942	2,460	2,517
WEST FORK	1,607	2,042	2,317	2,375
WINSLOW	342	399	391	350
WASHINGTON CO. TOTALS	113,409	157,715	203,065	207,911
TWO-COUNTY TOTAL	210,908	311,121	424,404	435,350

Table 3.1 - Population Trend by Jurisdiction



*Years projections by the Arkansas Census State Data Center (CSDC) (2015)

Figure 3.3 - Population Projection by County



Map 3.2 - NWARPC Projected Population Density for 2040 by TAZ and Arterial Roads

City Population Projections

The estimated and projected populations for 2040 is shown in Table 3.2 for all the cities and incorporated Benton and Washington Counties area. These projections were based on the population projection from CSDC and also used previous growth rates developed for the 2035 Plan. In both counties many jurisdictions have an overall percent growth over 100 percent between 2010 and projected 2040. The highest percent growth in Washington County is projected for the city of Johnson which could grow 156 percent to 8,578 by 2040. The highest total population number is projected for Springdale at 150,932, a 113 percent increase. Fayetteville will have a projected growth of 94 percent to reach 142,496 people by 2040. In Benton County the highest population number is projected in Rogers at 102,281, an increase of 83 percent from 2010. Centerton still has one of the highest percent population increase projected to grow by approximately 135 percent reaching 22,376 people in 2040. These population projections are useful to city planning departments as well as for regional planning. These projections will also be used for forecasting traffic in the travel demand model.

Demographic Estimates - Race

According to the ACS 2009-2013 five year estimate in Benton County, 87.2 percent of the population is white and about 12.8 percent other race than white; in Washington County 78.3 percent is white and 21.7 percent other race than white; and in McDonald County 89.4 percent is white and 10.6 percent is other race than white. The black or African-American population represents 1.2 percent in Benton County, 3.4 percent in Washington County and 1.2 percent in McDonald County. The Hispanic or Latino population makes up 15.7 percent of the population in Benton County, 15.7 percent in Washington and 11.3 percent in McDonald County. Another notable minority group in Benton and Washington Counties is the Native Hawaiian or Pacific Islanders, which would include Marshallese Island immigrants. The most recent ACS estimates 0.2 percent of Native Hawaiian and Other Pacific Islanders in Benton County, 2.2 in Washington County and 1.3 percent in McDonald County.

For the MSA, Figure 3.4 illustrates the racial distribution within this geographic area of a total population of 473,913 of which 461,518 identifies as one race. Figure 3.5 also illustrates the Hispanic or Latino population in this Census designated area.

For the three counties, the break-down demographics in Figure 3.6 and Figure 3.7 shows the percentage for each race and ethnic group by county.

Fayetteville, Springdale, Rogers AR-MO MSA - Demographic Estimates: Race
2009-2013 American Community Survey 5-Year Estimates

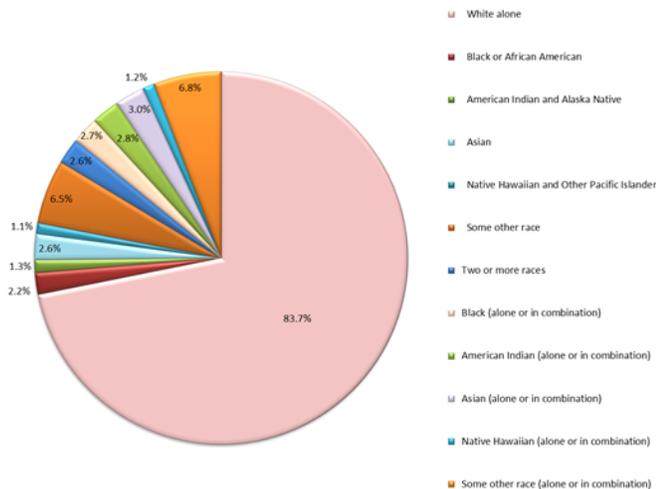


Figure 3.4 - Demographic Estimates - Race in MSA

Fayetteville, Springdale, Rogers AR-MO MSA - Demographic Estimates: Hispanic or Latino and Race - 2009-2013 American Community Survey 5-Year Estimates

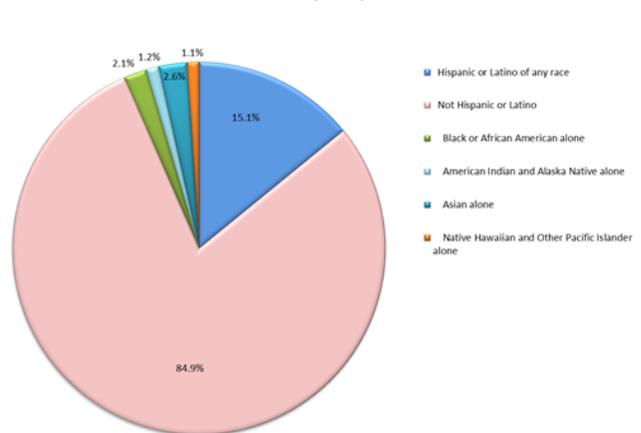
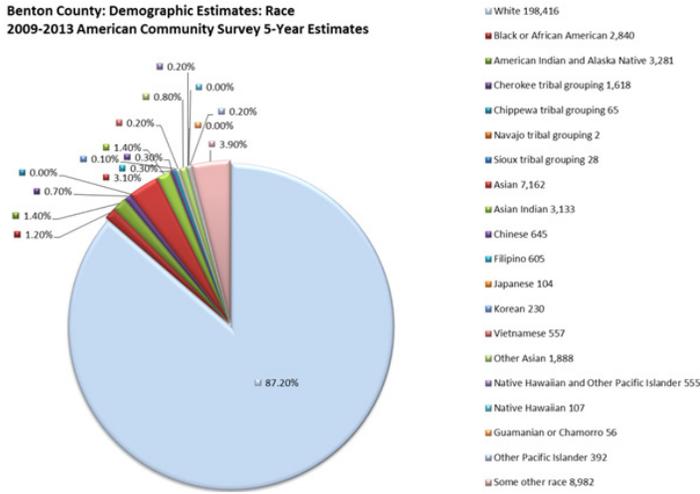


Figure 3.5 - Demographic Estimates -Hispanic or Latino and Race in MSA

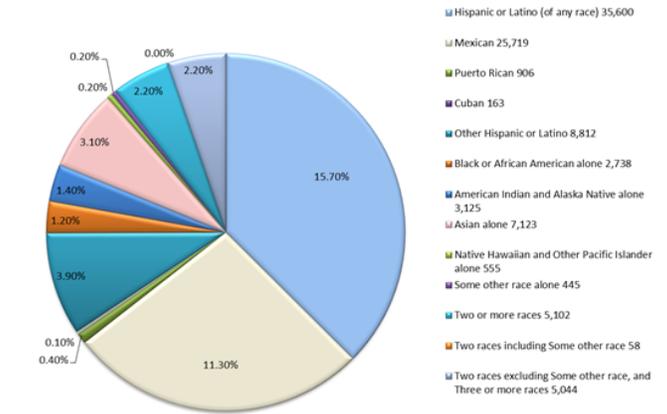
CITY/COUNTY	CENSUS	CENSUS	CENSUS	Projection	Projection	Projection
	1990	2000	2010	2020	2030	2040
Unincorporated Benton Co.	33,079	44,009	42,483	47,903	53,496	63,008
AVOCA	269	423	488	572	679	820
BELLA VISTA	9,083	16,582	26,526	33,633	42,085	51,847
BENTONVILLE	11,257	19,730	35,301	45,280	56,971	70,325
BETHEL HEIGHTS	281	714	2,372	3,270	4,284	5,365
CAVE SPRINGS	465	1,103	1,931	2,259	2,873	3,561
CENTERTON	491	2,146	9,515	13,421	17,797	22,376
DECATUR	918	1,314	1,699	2,000	2,381	2,878
ELM SPRINGS - Benton Co.		13	137	168	205	221
GARFIELD	308	490	502	573	668	802
GATEWAY	65	116	405	550	715	893
GENTRY	1,726	2,165	3,425	3,707	4,406	5,324
GRAVETTE	1,412	1,810	3,113	3,251	3,389	3,730
HIGHFILL	84	379	583	797	1,039	1,299
LITTLE FLOCK	944	2,585	2,585	3,259	4,057	4,988
LOWELL	1,224	5,013	7,327	9,931	12,893	16,093
PEA RIDGE	1,620	2,346	4,794	6,106	7,649	9,428
ROGERS	24,692	38,829	55,964	68,509	83,746	102,281
SILOAM SPRINGS	8,151	10,843	15,039	17,685	21,050	25,447
SPRINGDALE - Benton Co.	907	2,011	6,554	8,256	10,753	13,437
SPRINGTOWN		114	87	125	167	211
SULPHUR SPRINGS	523	671	511	483	479	534
BENTON CO. TOTALS	97,499	153,406	221,339	271,031	331,370	404,736
Unincorporated Washington Co.	31,794	38,341	37,350	42,089	48,163	58,140
ELKINS	692	1,251	2,648	3,694	4,984	6,426
ELM SPRINGS - Washington Co.	893	1,031	1,756	1,833	2,274	2,842
ELM SPRINGS (Total)	893	1,044	1,893	2,058	2,562	2,950
FARMINGTON	1,322	3,605	5,974	8,455	11,503	14,875
FAYETTEVILLE	42,099	58,047	73,580	90,993	113,734	142,496
GOSHEN	589	752	1,071	1,337	1,681	2,112
GREENLAND	757	907	1,294	1,538	1,906	2,381
JOHNSON	599	2,319	3,354	4,821	6,613	8,578
LINCOLN	1,460	1,752	2,249	2,693	3,289	4,082
PRAIRIE GROVE	1,761	2,540	4,426	5,796	7,577	9,658
SPRINGDALE - Washington Co.	29,034	43,787	64,195	82,616	106,579	135,175
SPRINGDALE (Total)	29,941	45,798	70,749	90,871	117,332	148,612
TONTITOWN	460	942	2,460	3,525	4,828	6,259
WEST FORK	1,607	2,042	2,317	2,722	3,277	4,044
WINSLOW	342	399	391	424	476	570
WASHINGTON CO. TOTALS	113,409	157,715	203,065	252,532	316,885	397,636
TWO-COUNTY TOTAL	210,908	311,121	424,404	523,563	648,255	802,372

Table 3.2 - NWARPC Population Projections for the two-county region municipalities

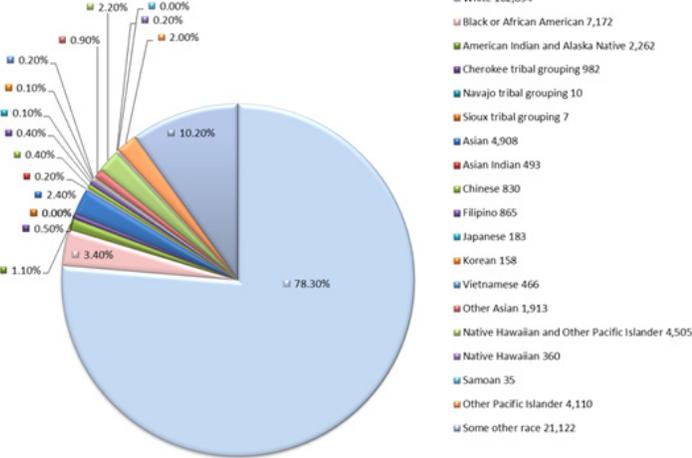
**Benton County: Demographic Estimates: Race
2009-2013 American Community Survey 5-Year Estimates**



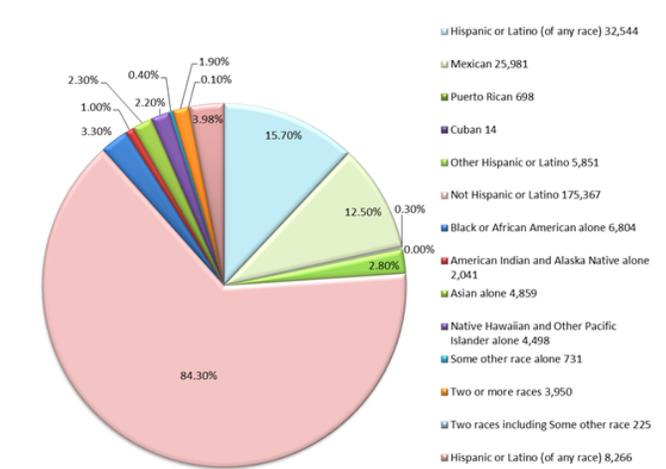
**Benton County - Demographic Estimates: Hispanic or Latino and Race
2009-2013 American Community Survey 5-Year Estimates**



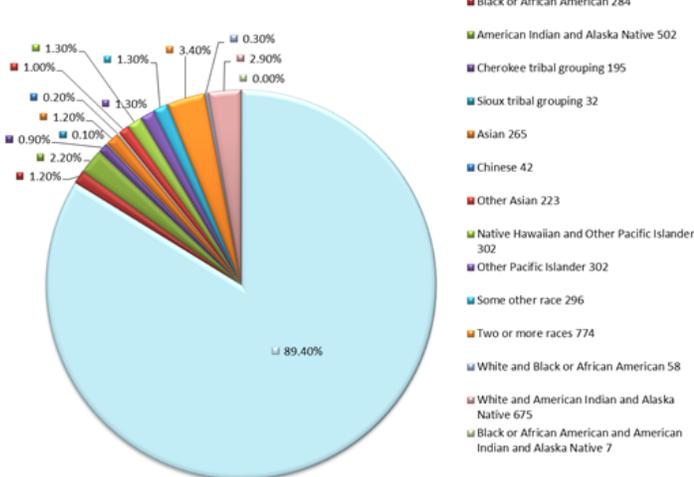
**Washington County - Demographic Estimates: Race
2009-2013 American Community Survey 5-Year Estimates**



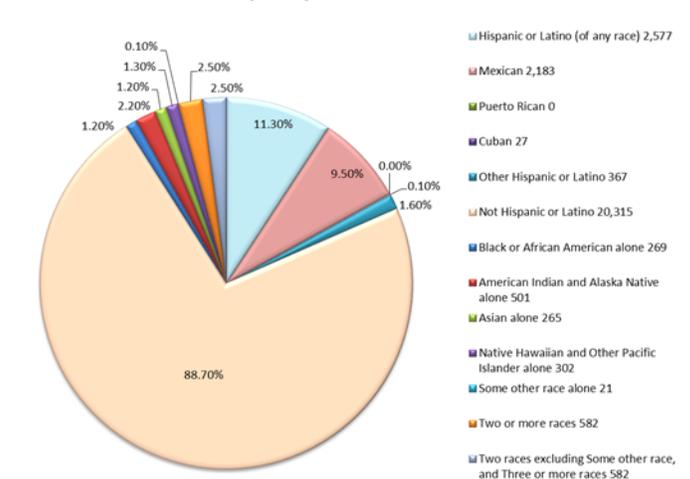
**Washington County - Demographic Estimates: Hispanic or Latino and Race
2009-2013 American Community Survey 5-Year Estimates**



**McDonald County - Demographic Estimates: Race
2009-2013 American Community Survey 5-Year Estimates**



**McDonald County - Demographic Estimates: Hispanic or Latino and Race
2009-2013 American Community Survey 5-Year Estimates**



**Figure 3.6 - Demographic Estimates
Race by County**

**Figure 3.7 - Demographic Estimates
Hispanic or Latino and Race by County**

Minority Population Trends

Table 3.3 shows an in-migration of Latino or Hispanic population. Between the year 2000 and 2010 the two county regions' total population grew by 36.4 percent while the Hispanic population grew from 26,401 to 65,741 or by 149.0 percent. The Hispanic population in Northwest Arkansas continues to increase at a faster rate than the general population. The Census Bureau's 2010 Hispanic population figure of 65,741 makes up 15.5 percent of the 424,404 two-county total population. This Hispanic total population ratio is higher in the cities of Northwest Arkansas with an 18.4 percent and 26.7 percent ratio for Washington and Benton County cities respectively.

Geographic	Total Population Census 2000	Hispanic Population Census 2000	Total Population Census 2010	Hispanic Population Census 2010	Total Pop. Change 2000-2010	Hispanic Pop. Change 2000-2010	Total Population Percent Change 2000-2010	Hispanic Population Percent Change 2000-2010	Percent Hispanic to Total Population in 2010
AVOCA	423	26	488	85	65	59	15.37%	226.92%	17.4%
BELLA VISTA (CDP)	16,582	168	26,461	688	9,879	520	59.58%	309.52%	2.6%
BENTONVILLE	19,730	1198	35,301	3074	15,571	1876	78.92%	156.59%	8.7%
BETHEL HEIGHTS	714	24	2,372	823	1,658	799	232.21%	3329.17%	34.7%
CAVE SPRINGS	1,103	24	1,729	77	626	53	56.75%	220.83%	4.5%
CENTERTON	2,146	87	9,515	1161	7,369	1074	343.38%	1234.48%	12.2%
DECATUR	1,314	217	1,699	483	385	266	29.30%	122.58%	28.4%
ELKINS	1,251	15	2,648	213	1,397	198	111.67%	1320.00%	8.0%
ELM SPRINGS	1,044	45	1,535	131	491	86	47.03%	191.11%	8.5%
FARMINGTON	3,605	79	5,974	352	2,369	273	65.71%	345.57%	5.9%
FAYETTEVILLE	58,047	2821	73,580	4725	15,533	1904	26.76%	67.49%	6.4%
GARFIELD	490	7	502	5	12	-2	2.45%	-28.57%	1.0%
GATEWAY	116	0	405	32	289	32	249.14%	---	7.9%
GENTRY	2,165	121	3,158	379	993	258	45.87%	213.22%	12.0%
GOSHEN	752	6	1,071	10	319	4	42.42%	66.67%	0.9%
GRAVETTE	1,810	53	2,325	94	515	41	28.45%	77.36%	4.0%
GREENLAND	907	20	1,259	41	352	21	38.81%	105.00%	3.3%
HIGHFILL	379	4	583	19	204	15	53.83%	375.00%	3.3%
JOHNSON	2,319	74	3,354	347	1,035	273	44.63%	368.92%	10.3%
LINCOLN	1,752	89	2,249	147	497	58	28.37%	65.17%	6.5%
LITTLE FLOCK	2,585	413	2,585	318	0	-95	0.00%	-23.00%	12.3%
LOWELL	5,013	448	7,327	1808	2,314	1360	46.16%	303.57%	24.7%
PEA RIDGE	2,346	24	4,794	276	2,448	252	104.35%	1050.00%	5.8%
PRAIRIE GROVE	2,540	52	4,380	196	1,840	144	72.44%	276.92%	4.5%
ROGERS	38,829	7490	55,964	17619	17,135	10129	44.13%	135.23%	31.5%
SILOAM SPRINGS	10,843	1518	15,039	3128	4,196	1610	38.70%	106.06%	20.8%
SPRINGDALE	45,798	9005	69,797	24692	23,999	15687	52.40%	174.20%	35.4%
SPRINGTOWN	114	10	87	11	-27	1	-23.68%	10.00%	12.6%
SULPHUR SPRINGS	671	112	511	22	-160	-90	-23.85%	-90.36%	4.3%
TONNITOWN	942	21	2,460	140	1,518	119	161.15%	566.67%	5.7%
WEST FORK	2,042	64	2,317	76	275	12	13.47%	18.75%	3.3%
WINSLOW	399	3	391	8	-8	5	-2.01%	166.67%	2.0%
Benton County (Cities Total)	107,373	11,944	112,547	30,102	5,174	18,158	4.82%	152.03%	26.7%
Washington County (Cities Total)	120,456	12,273	168,555	30,938	48,099	18,665	39.93%	152.08%	18.4%
Benton County Total	153,406	13,469	221,339	34,283	67,933	20,814	44.28%	154.53%	15.5%
Washington County Total	157,715	12,932	203,065	31,458	45,350	18,526	28.75%	143.26%	15.5%
NWA Regional Total	311,121	26,401	424,404	65,741	113,283	39,340	36.41%	149.01%	15.5%
Arkansas	2,673,400	86,866	2,915,918	186,050	242,518	99,184	9.07%	114.18%	6.4%

Source: U.S. Census Bureau, Census 2000. Table prepared by Northwest Arkansas Regional Planning Commission.

Table 3.3 - Hispanic Population Growth in Northwest Arkansas - 2000 to 2010

Table 3.4 and Table 3.5 and Figure 3.8 and Figure 3.9 show that while the diversity of the region’s population is increasing rapidly, especially in the Hispanic or Latino population group, the total population in absolute numerical terms is still predominantly white.

Total Benton and Washington Counties	US Census 2010	ACS 5-year Estimate (2009-2013)	Percent Change
Tota Population:	424,404	435,350	2.6%
White alone	345,070	361,310	4.7%
Black or African American alone	8,820	10,012	13.5%
American Indian and Alaska Native alone	6,144	5,543	-9.8%
Asian alone	10,735	12,070	12.4%
Native Hawaiian and Other Pacific Islander alone	4,799	5,060	5.4%
Hispanic or Latino (of any race)	37,231	68,144	83.0%

Table 3.4 - Population change from 2010 to 2013 based on Census 2010 and the ACS five-year estimates (2009-2013) - Race and Hispanic or Latino in Washington and Benton Counties, Arkansas

McDonald County, Missouri	US 2010 Census	ACS 5-year Estimate (2009-2013)	Percent Change
Total Population:	23,083	22,892	-0.8%
White alone	19,619	20,469	4.3%
Black or African American alone	133	284	113.5%
American Indian and Alaska Native alone	663	502	-24.3%
Asian alone	192	265	38.0%
Native Hawaiian and Other Pacific Islander alone	258	302	17.1%
Hispanic or Latino (of any race)	2587	2577	-0.4%

Table 3.5 - Population change from 2010 to 2013 based on Census 2010 and the ACS five-year estimates (2009-2013) – Race and Hispanic or Latino in McDonald County, Arkansas

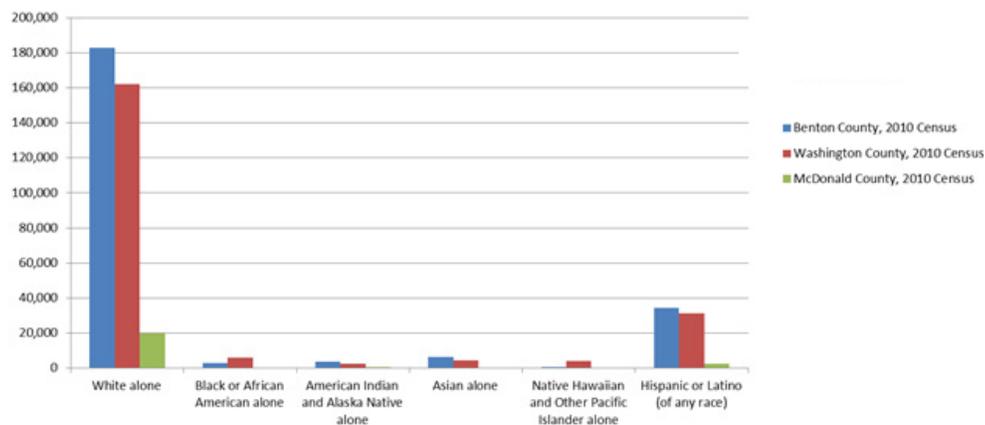


Figure 3.8 - Race and Hispanic or Latino Origin in the three counties U. S. Census 2010

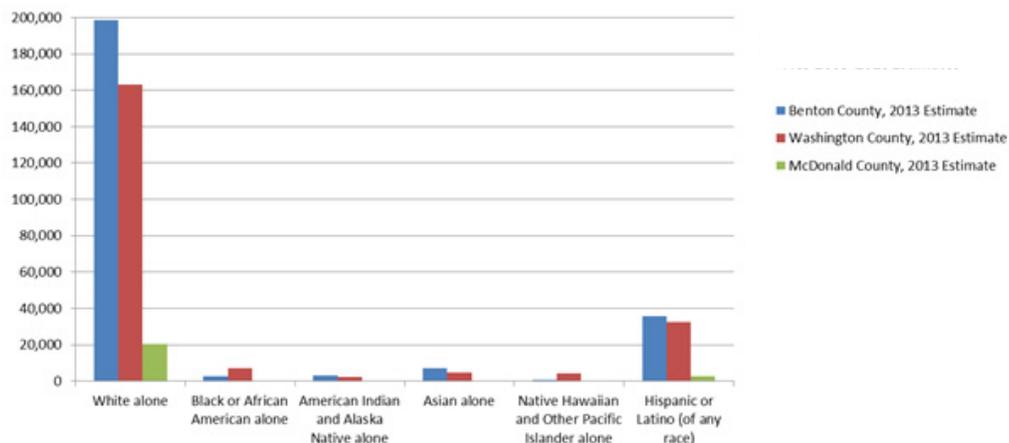


Figure 3.9 - Race and Hispanic or Latino Origin in the three counties 2009-2013 ACS

Employment Data and Trends

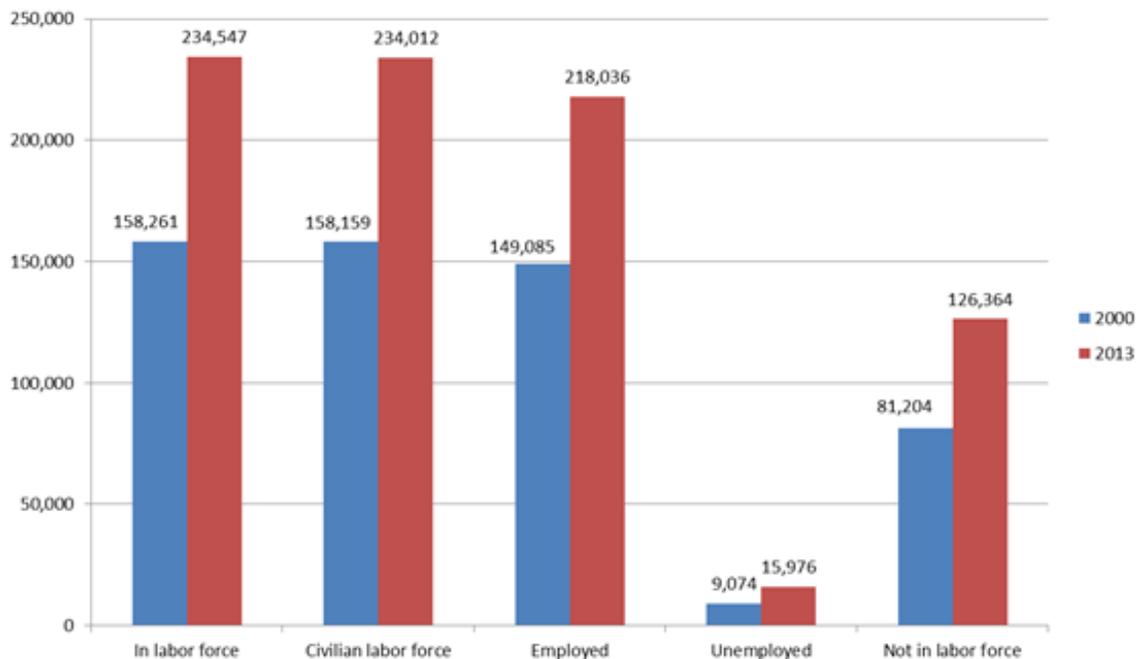
Given the fact that most jobs require commuting, employment trends are important in helping to predict transportation needs into the future. Employment predictions and commuting patterns are a major part of travel demand modeling. Table 3.4 shows the region’s labor force growing trend in the past five years and the unemployment rate continuing to decrease after the recession. As can be seen in Table 3.4 the annual unemployment rate started at 6.4 percent and continued to decrease to a low of 4.6 in 2014. This unemployment rate was lower than other MSA in Arkansas as well as the Arkansas State rate of 6.1 percent and 6.2 percent in the United States in 2014. A historically low unemployment rate may have been a major factor in attracting population into Northwest Arkansas and a relatively low rate should continue to attract migration into the area.

	2009	2010	2011	2012	2013	2014
Labor Force	225,225	227,625	231,750	233,050	232,925	238,925
Employment	201,725	212,325	216,650	219,375	219,800	227,950
Unemployment	14,500	15,300	15,100	13,675	13,125	10,975
Unemployment Rate	6.4	6.7	6.5	5.9	5.6	4.6

Data Source: Arkansas Department of Workforce Services

Table 3.4 - Employment Trend in the Fayetteville-Springdale-Rogers AR-MO MSA

To compare, the data in Figure 3.10 are based on the Census Bureau’s data and ACS Estimates and represent workers 16 years and over and the employment trends from 2000 to 2013. In 2000, the population 16 years and over in the MSA was 239,465 while in 2013 it was 360,911.



* Note, the 2000 Census Bureau’s data did not include the Missouri portion of the MSA

Figure 3.10 - Employment trend based on the 2000 U.S. Census Bureau and 2009-2013 American Community Survey estimates data for the Fayetteville-Springdale-Rogers AR-MO MSA*

The ACS 2009-2013 estimates the Fayetteville-Springdale-Rogers AR-MO MSA total number of civilian employed population 16 years and over to be at 218,036. From this total, Figure 3.11 illustrates the workers by industry as a percent.

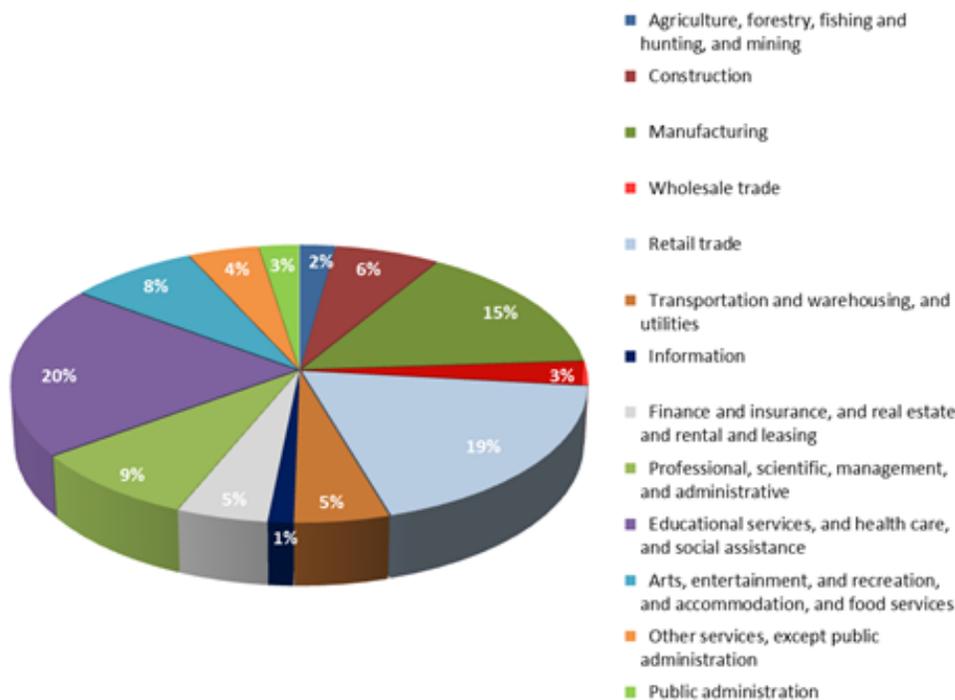
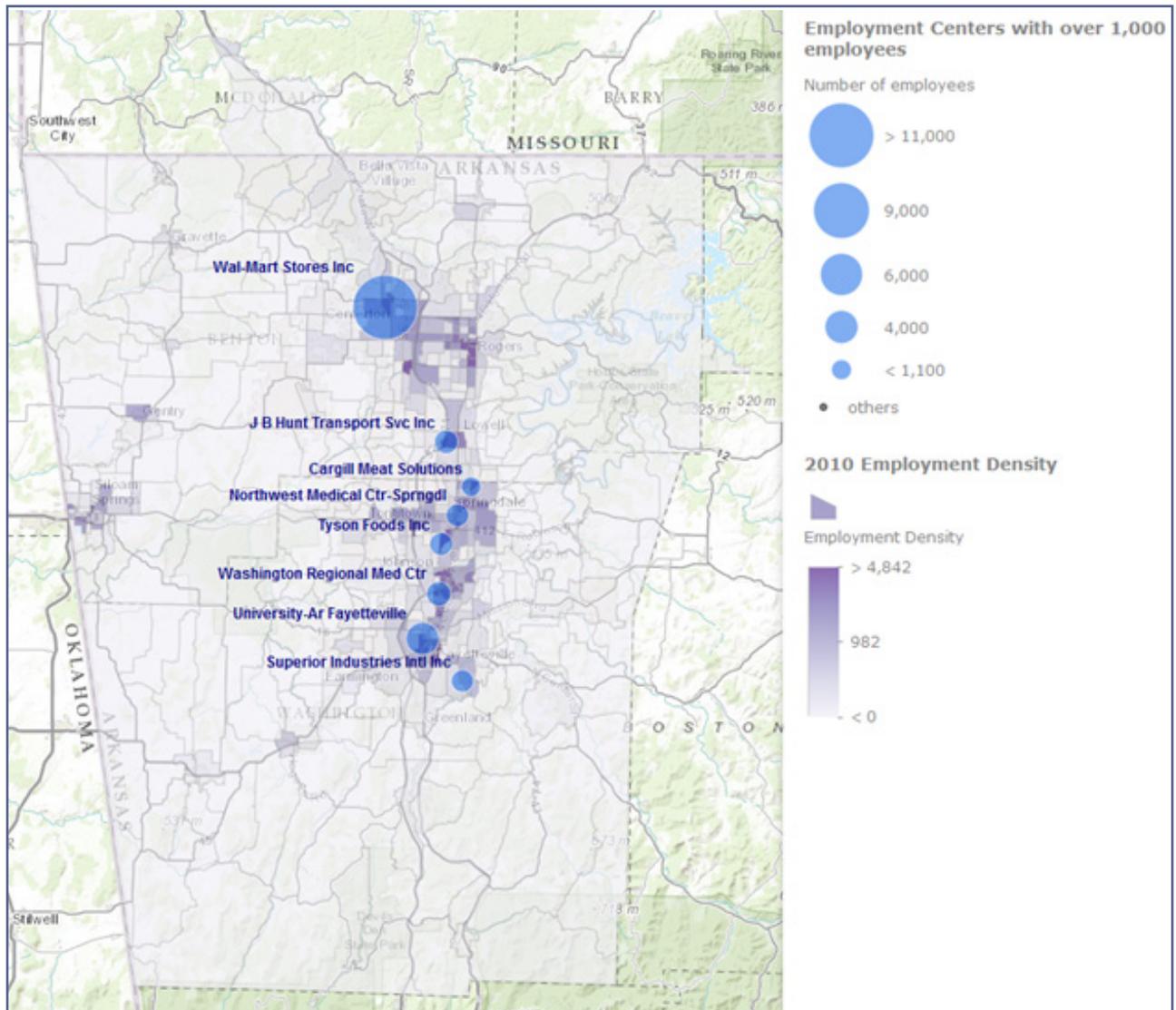


Figure 3.11 - Workers by Industry - Civilian Population 16 Years and Over ACS 2009-2013 Fayetteville-Springdale-Rogers AR-MO MSA

As Figure 3.11 illustrates, there are a wide variety of industries present in the MSA region, with the educational services, health care and social assistance being the highest (at 20 percent) followed by the retail trade (19 percent) and the manufacturing sector at 15 percent. The sectors with the smallest percent are information and agriculture, forestry, fishing and hunting, and mining.

Map 3.3 shows the employment density based on the Census Transportation Planning Products as they have been developed for the 2010 Traffic Analysis Zones (TAZ) for the Northwest Arkansas Travel Demand Model. The map also shows the locations of the employers with more than 1,000 employees. The density of the employment and the largest number of employees in the region are located in the urban corridor, along I-49 between south Fayetteville and Bentonville. The largest employers in Northwest Arkansas include the WalMart Stores, Inc. in Bentonville, JB Hunt Transport SVC Inc., in Lowell, Tyson Foods, Inc. in Springdale and the University of Arkansas in Fayetteville.

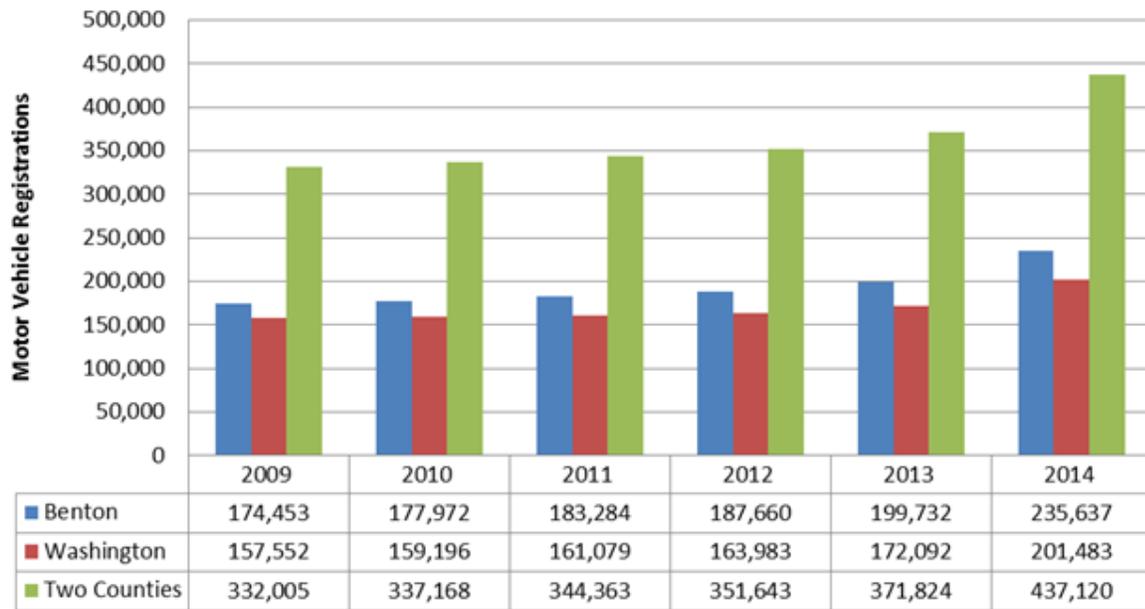


Map 3.3 - Employment Centers with Over 1,000 Employees (Infogroup Employment from May 2015) and 2010 Employment Density, by TAZ

Vehicle Trends in Northwest Arkansas

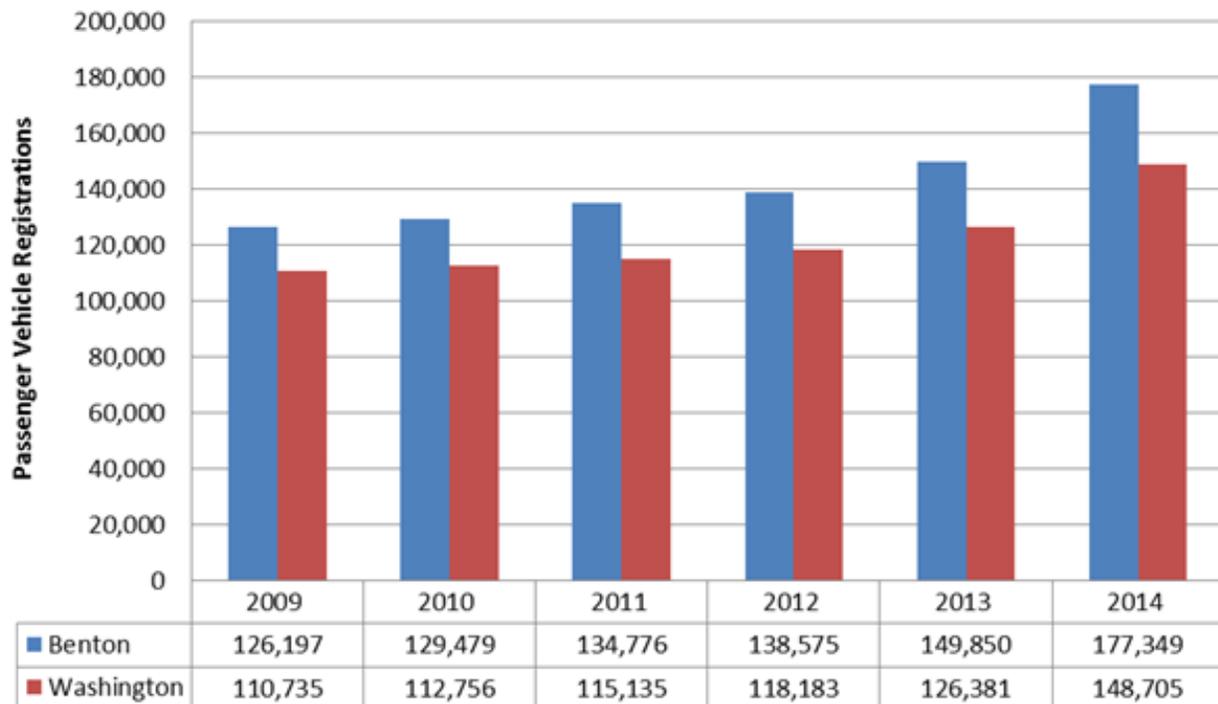
The percentage of automobile registration in Northwest Arkansas as a percentage of the State has steadily increased over the years. Since 1990 this percentage share grew from 10.0 percent to 14.0 percent in 2014. Data provided by the Arkansas Finance and Administration Department was utilized to compile Table 3.5 and Table 3.6 that show trends in total vehicle registrations in the two counties as well as total passenger vehicle registrations in these counties.

These vehicle registration figures are another metric that demonstrate population growth in the region and indicate the need to analyze and plan for future infrastructure to support this level of growth.



Data Source: Arkansas Department of Finance and Administration. Total Motor Vehicles = Total Passenger Vehicles + Pick-ups + Total Trucks + Motorcycles

Figure 3.12 - Total Motor Vehicle Registrations in Benton and Washington Counties 2009-2014



Data Source: Arkansas Department of Finance and Administration

Figure 3.13 - Total Passenger Vehicle Registrations for Benton and Washington County 2009-2014

These vehicle registration figures are another metric that demonstrates population growth in the region and indicate the need to analyze and plan for future infrastructure to support this level of growth.

Table 3.6 compares the number of vehicles according to occupied housing units looking at the change from Census 2000 to the most recent five year estimates from ACS 2009-2013. The data shows that the number of occupied housing units grew by 41 percent in Benton County and 32 percent in Washington County. The table also shows that the number of households with three or more vehicles available grew by 76 percent in Benton County and 56 percent in Washington County. In Washington County the number of housing units with no vehicle available has increased to 35 percent compared to the 28.6 percent estimated in the previous ACS data. This may mean that there is a growing segment of the population in Washington County that either use, or may need other means of transportation while this category is experiencing a decline compared to previous estimates in Benton County.

Vehicles Available	Census 2000		ACS Estimate 2009		ACS Estimate 2013		Percent Change	
	Benton	Washington	Benton	Washington	Benton	Washington	Benton	Washington
	County	County	County	County	County	County	County	County
Occupied housing units	58,212	60,151	77,174	74,569	82,150	79,214	41%	32%
No vehicles available	2,513	3,423	3,501	4,401	2,816	4,614	12%	35%
1 vehicle available	18,026	21,243	23,663	25,598	23,939	27,824	33%	31%
2 vehicles available	27,502	25,300	34,761	27,988	37,448	30,854	36%	22%
3 or more vehicles available	10,171	10,185	15,249	16,582	17,947	15,922	76%	56%

Table 3.5 - Vehicles by Occupied Household Units

Commuting – Means of Transportation

Table 3.6 shows that commuters in the MSA mostly use a car, truck or van and that they generally drive alone. The number of almost all other modes of transportation has remained nearly the same when comparing the ACS composite figures for four consecutive periods from 2010 to 2013.

Means of Transportation to Work	2010	2011	2012	2013
Total	197,641	200,561	204,197	206,208
Car, truck, or van - drove alone	156,043	158,218	160,560	163,997
Car, truck, or van - carpoled	25,951	24,805	25,033	24,062
Public transportation (excluding taxicab)	731	796	929	1,085
Walked	4,767	5,315	5,293	4,826
Taxicab, motorcycle, bicycle, or other means	2,555	2,815	2,568	2,672
Worked at home	7,594	8,612	9,814	9,566

Table 3.6 - Fayetteville-Springdale-Rogers, AR-MO MSA - Means of Transportation to Work Workers 16 years and over (the table is based on data from ACS 5 year estimates 2006-2010, 2007-2011, 2008-2012, and 2009-2013)

Commuting Time – Travel time to work

In general terms, the mean travel time to work for Northwest Arkansas is approximately 20 minutes. Figure 3.14 shows the three counties and the time increments percentages based on the latest ACS estimates.

The mean travel time to work is estimated at 20.1 minutes for Benton County, 20.6 minutes for Washington County and 27.1 minutes for McDonald County.

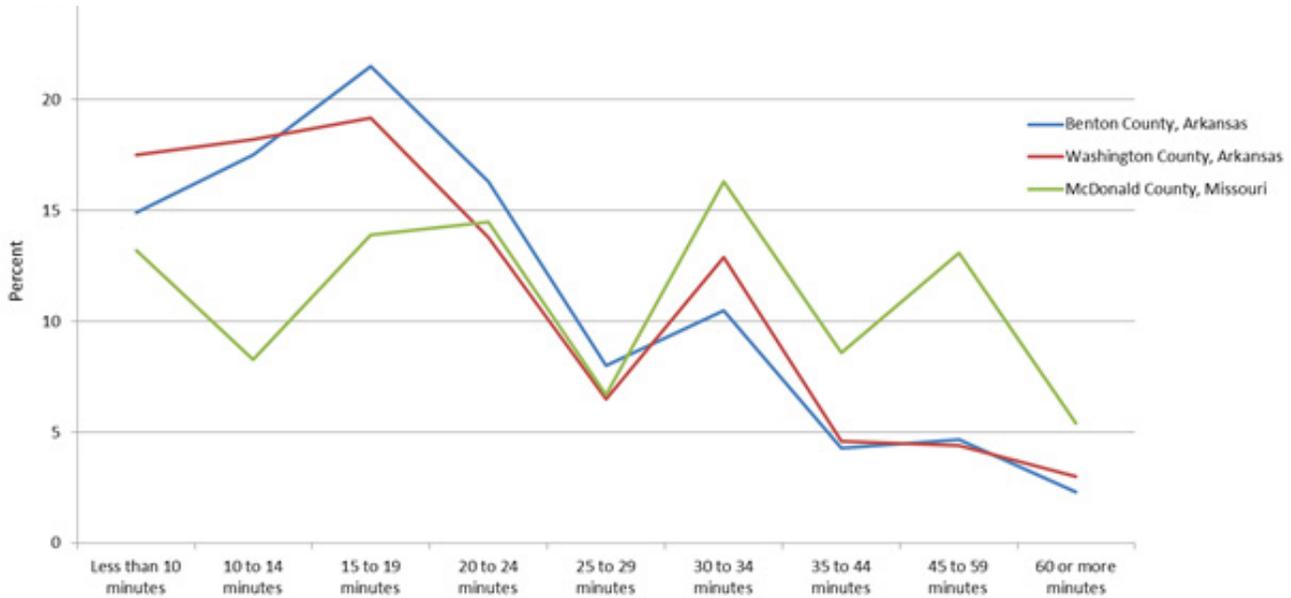


Figure 3.14 - Mean Travel Time to Work - ACS Estimates

In the Fayetteville-Springdale-Rogers, AR-MO MSA Figure 3.15 shows the travel time to work for workers 16 years and over who did not work at home based on the 2009-2013 ACS data. This category of workers had a total of 205,350 in this estimated time period. As it can be observed from the graphic below, about 40,000 workers spend 15-19 minutes to get to work followed by the group of workers who spend 30-34 minutes to reach their workplace, about 24,000.

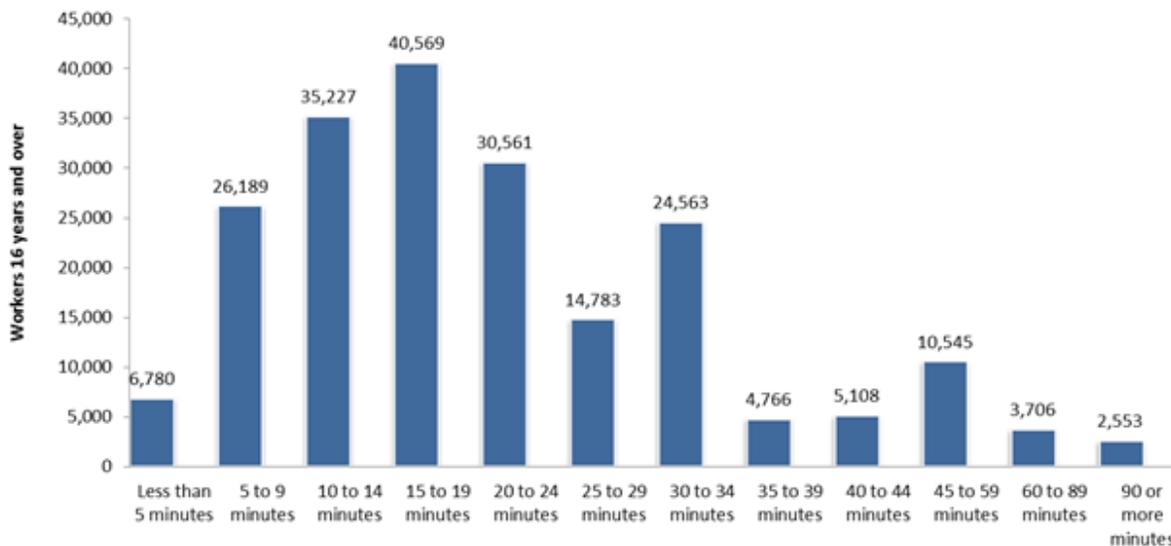


Figure 3.15 - Travel Time to Work - Workers 16 years and over who did not work at home in the Fayetteville-Springdale-Rogers, AR-MO Metro Area - ACS 2009-2013

Summary of Demographic Factors

The population information and the map presentations demonstrate three major trends. First, the population in Northwest Arkansas continues to increase. For over 25 years the region sustained the highest population growth rate of any two-county region in Arkansas. Population projections through the year 2040 are based upon the region's demonstrated growth from 1990 through 2010. There are a number of factors, such as relocation of major employers, which could very possibly prevent a repeat of the exceptional growth that took place in the past. However, regional governments and institutions must be prepared for the possibility of even more growth in the future. Should the rate of growth significantly change, new projections will reflect these changes.

Secondly, the building permit figures as translated to a population density map show that there is a significant western growth pattern in the two-county area. The city boundary change map reveals that cities such as Bentonville, Centerton, Highfill, Springdale, Fayetteville and Tontitown continue to annex land to the west. These annexations, along with the development of water and sewer capacity in these areas, suggest that the western urban development will continue.

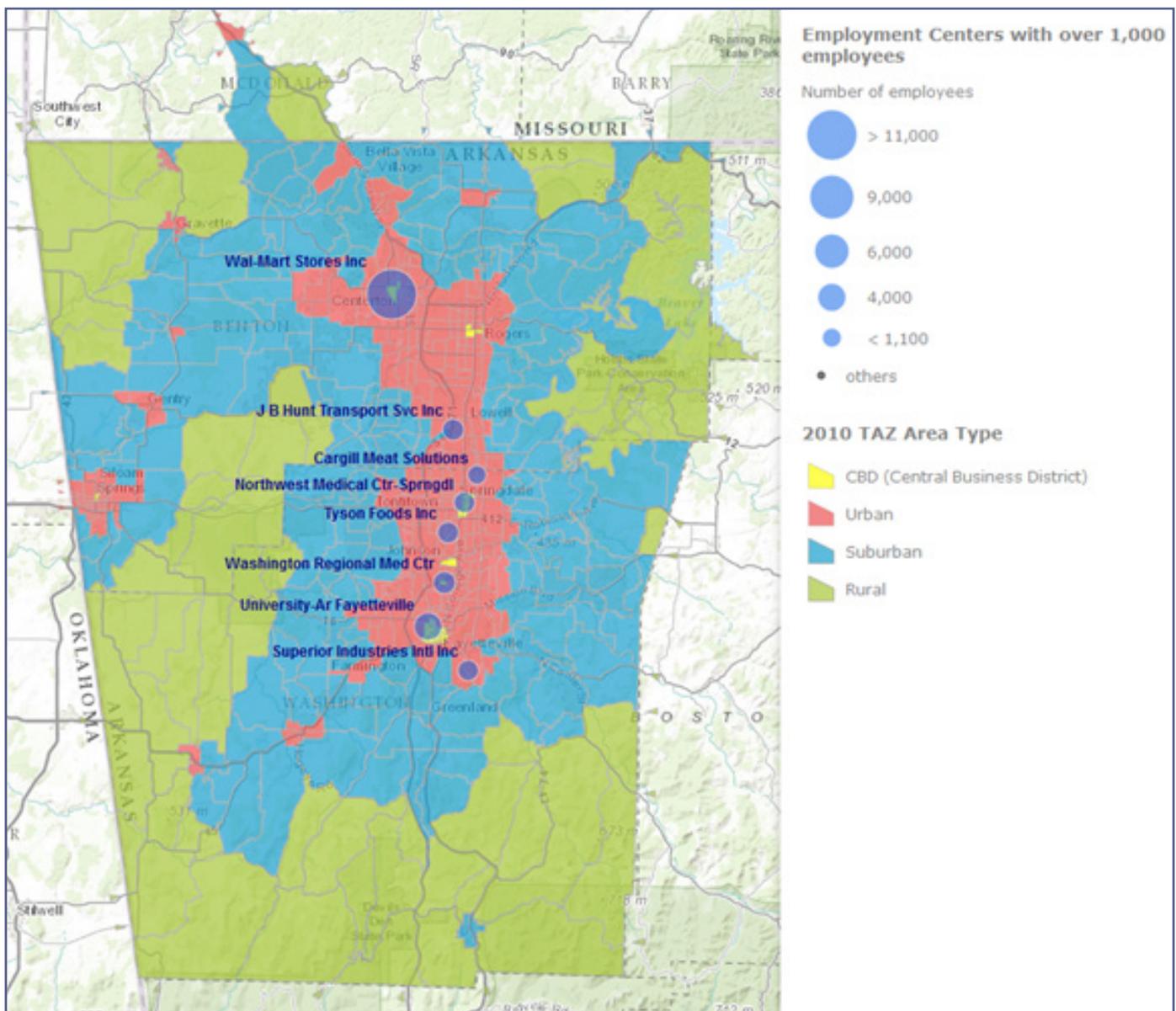
This rapid growth of population to the west creates demand with regard to local finances, infrastructure facilities, and the environment. The region will need to meet these challenges by implementing conventional road improvements as well as planning for alternative transportation. Future growth will likely require a more connected, reliable and efficient transportation system through the development of alternate modes of transportation, the use of new developments in ITS, and by employing a strategy to address congestion and efficiently use travel demand management.

A third factor is the changing demographic makeup of the Northwest Arkansas population. Aging population may have a growing need for public transit or other forms of transportation to maintain mobility. Another changing demographic is the growing Hispanic and Marshallese Islander populations. These populations may also have different mobility needs as well as environmental justice concerns.

LANDUSE

As part of the Northwest Arkansas Travel Demand Model upgrade, the area type for the MPA was calculated utilizing an algorithm that took into account population and employment density thresholds. The area type classifications resulting from this analysis include the following: Central Business Districts (CBD), Urban, Suburban and Rural Areas.

Map 3.4 illustrates this classification along with locations of the largest employers in the MPA. It is noticeable from the map that the development still occurs to the western part of the urban corridor with more defined expansions as fringes to northwest as well as to the southwest. If the existing major employment centers continue to be concentrated within the urban corridor and along I-49, planners need to concentrate their efforts in analyzing what the transportation demands could be in the near and long term future.



Map 3.4 - Employment Centers with over 1,000 Employees in the MPA and Area Type by TAZ

Map of Northwest Arkansas City Boundary Changes

The change in city boundaries shown in Figure 3.16 and Map 3.5 were based on the Census Bureau’s data from 2000 and 2010, as well as from the 2015 Census Bureau’s estimates. The data shows generally a continuous growth of the incorporated cities area, with a notable increase from 2000 for a number of cities including Fayetteville, Rogers, Springdale, Bentonville, as well as Centerton, Highfill and Gravette (from the smaller size cities category). Data also shows that a relatively larger portion of Benton County rural area has been annexed over the same time period than in Washington County.

Northwest Arkansas has experienced increasing economic growth in the past 25 years as can be observed from the series of maps in Figure 3.17. The maps illustrate land cover change from 1992 to 2011 based on the National Land Cover Database (NLCD). The developed land can be easily depicted as it continues to expand in the urban corridor as well as other communities out in the western portion of the two-county area. As the region continues to grow with new residential and commercial development, it is important to ensure that this growth does not impact key natural cultural and historic resources that make the region unique and attractive.

Another way of looking at the land use in the MPA is by analyzing the land use type as they are recorded by the County Assessor’s offices. Map 3.6 was developed based on the Land Use Type from Benton and Washington Counties’ Assessors databases and include the following categories:

- Agriculture
- Commercial
- Industrial
- Residential
- Exempt

Based on this data, Washington County has about 81 percent of agricultural land, while Benton County has approximately 57 percent of land assessed as agriculture. The next highest category in Benton County is residential area, at 23 percent, while in Washington County the same area is represented by 8 percent of the land. Commercial land in both counties represent about 3-4 percent while industrial land in both is represented by 1 percent of the land area. Table 3.7 illustrates all the data that was used to compile the map and the assessment categories in areas and as percent from the total area.

Land Use Type	Benton County Acres	Benton County Percent	Washington County Acres	Washington County Percent
Agriculture	319,270.40	57%	486,733.84	81%
Commercial	20,013.86	4%	15,290.55	3%
Industrial	3,045.00	1%	3,018.61	1%
Residential	139,877.97	25%	48,480.34	8%
Exempt	74,923.20	13%	48,330.29	8%
Total	557,130.42		601,853.63	

Data Source: Counties’ Parcel Data Land Assessment Type

Table 3.7 - Land Use in Benton and Washington Counties (Acres)

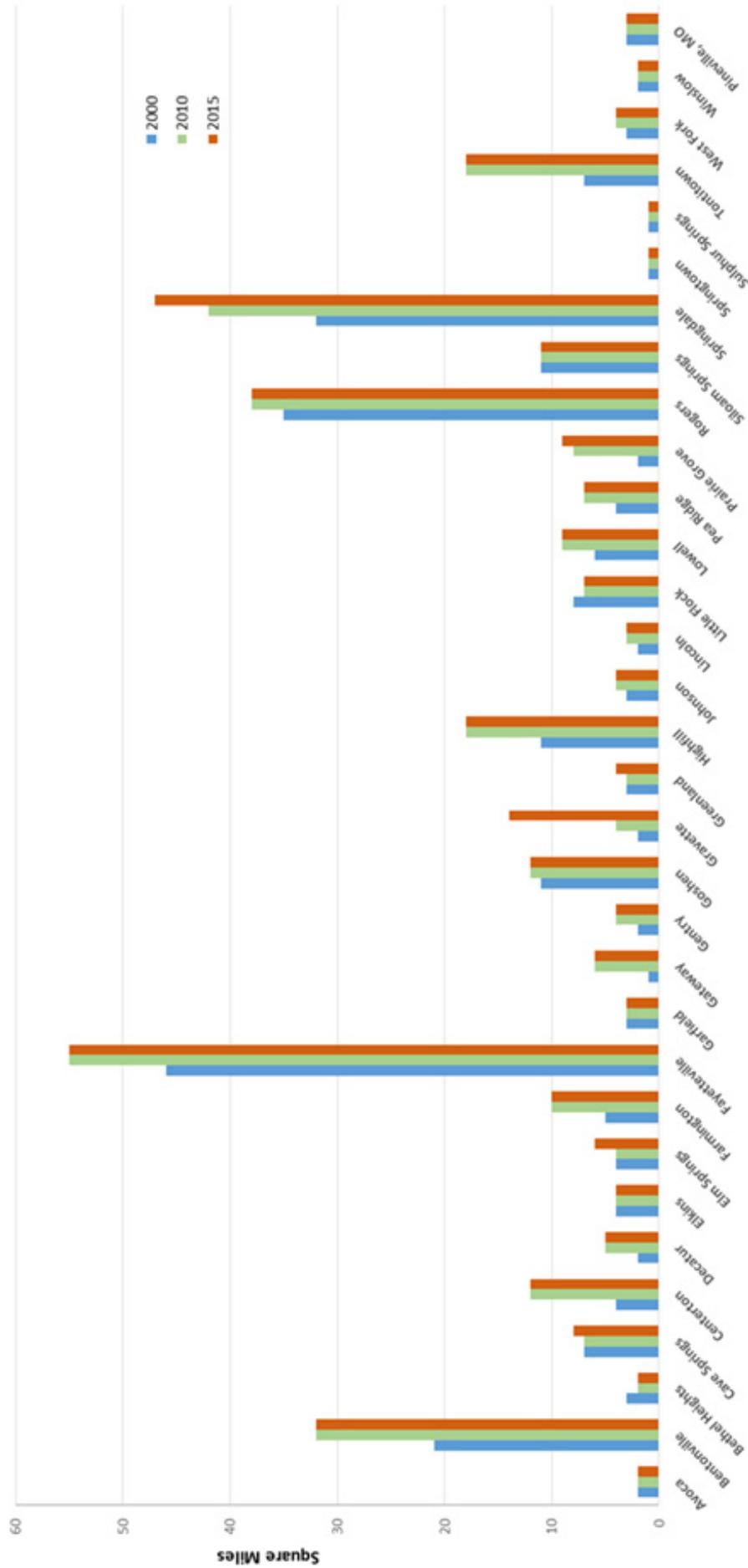
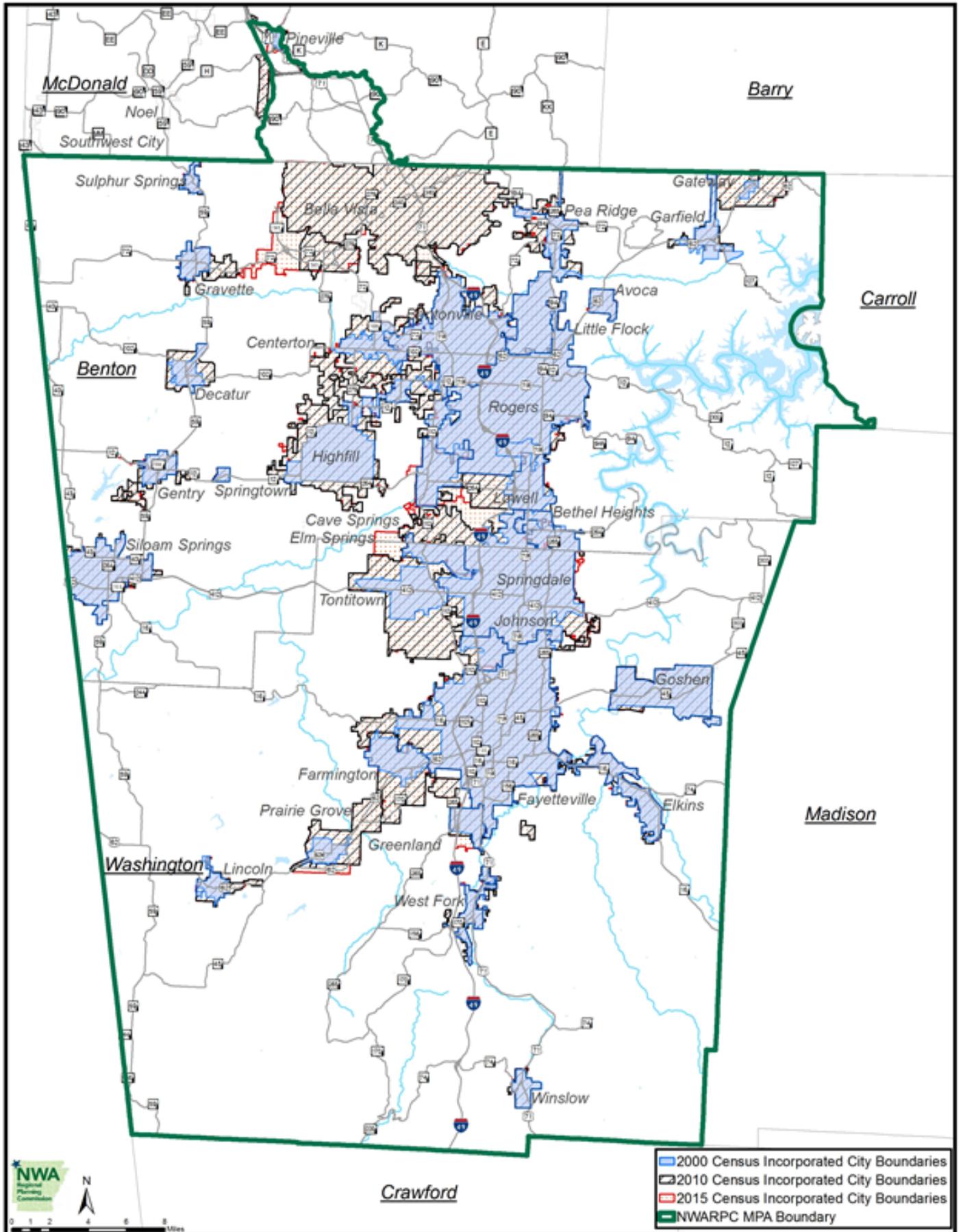


Figure 3.16 - City Limits Change in square miles in the MSA Area based on the Census Bureau data 2000-2015



Map 3.5 - Incorporated City Limits for the MPA – Data source: U.S. Census Bureau 2000-2015

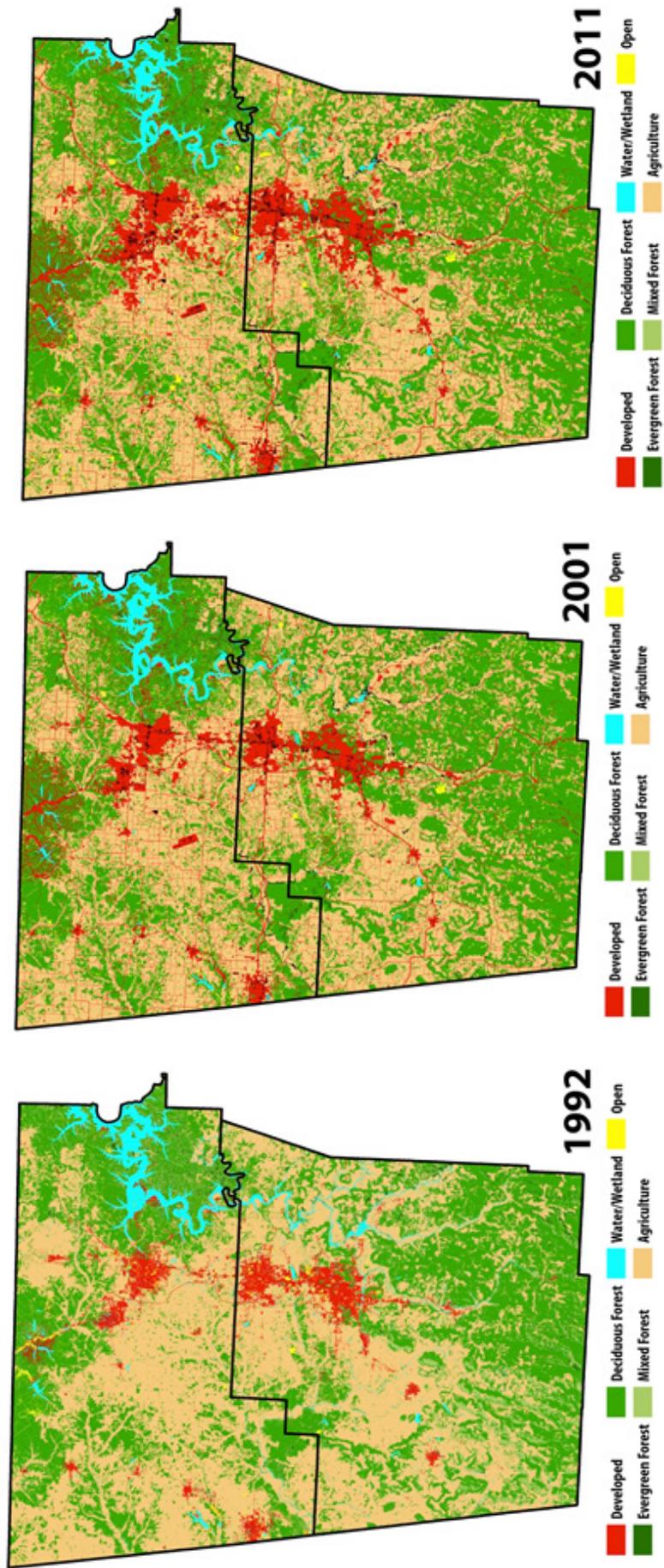
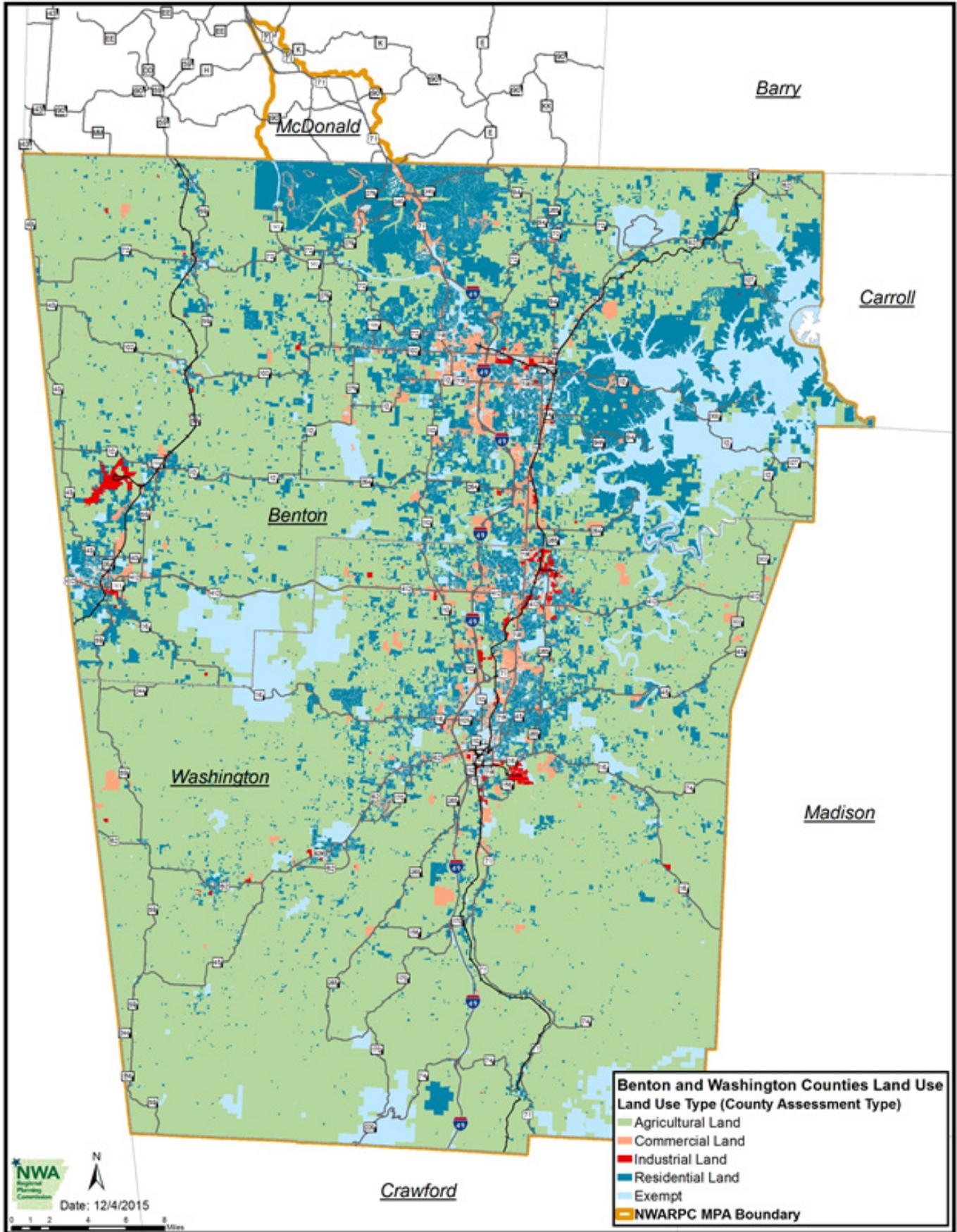


Figure 3.17 - Land Cover Change in Benton and Washington Counties – Data Source: National Land Cover Database (NLCD) 1992-2011



Map 3.6 - Land Use in Benton and Washington Counties – Data Source: Counties' Parcel Data Land Assessment Type