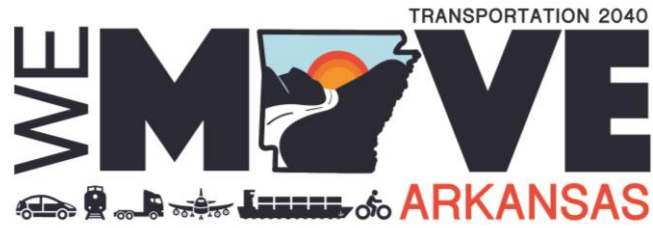
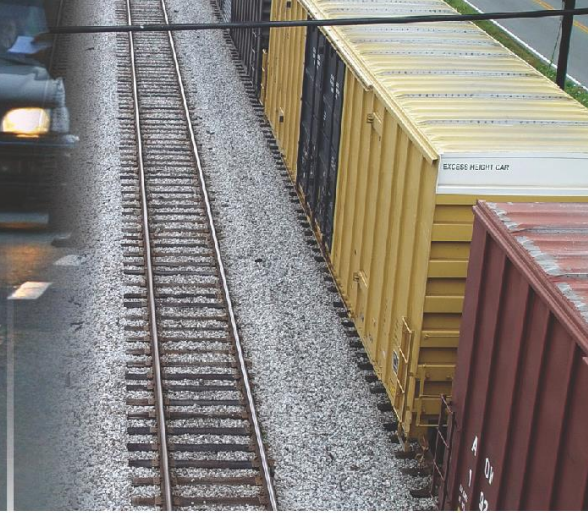


Technical Memorandum #7
Trends and Issues



*Arkansas
Long Range
Intermodal
Transportation
Plan*

*Prepared for:
Arkansas State
Highway and
Transportation
Department*

Prepared by:



January 2016

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1. INTRODUCTION

Identifying and analyzing demographic, socioeconomic, and travel data and projections for a state is a critical step in understanding the existing and future transportation needs. Information about the population, employment and economic factors in a state, as well as information about how the population chooses to travel, all provide important insight to inform the long range transportation planning process. Population and economic trends also provide a look at the future of a state and the implications it will have on the needs of the future transportation system. Aspects such as the nationwide aging population, the introduction of new transportation technology, and the changes in the energy industry will have implications that will affect the future transportation needs of Arkansas. This document will provide existing demographic, socioeconomic, and travel data as well as information about trends that may change the transportation needs through the year 2040.

Figure 1: State of Arkansas



2. DEMOGRAPHICS

This section of the memo summarizes Arkansas’ population and other demographic trends that directly affect travel demand.

2.1 Population Trends

Table 1 shows Arkansas’ annual population estimates since 2010. The state is gradually approaching a population of 3 million, making it the 32nd most populous state in the nation. Since the 2010 Census, 52 of Arkansas’ counties have experienced a decrease in population. These decreases have occurred in mostly rural counties and have been offset by increases in counties near population centers such as Little Rock and the northwest part of the state, which offer more employment opportunities.

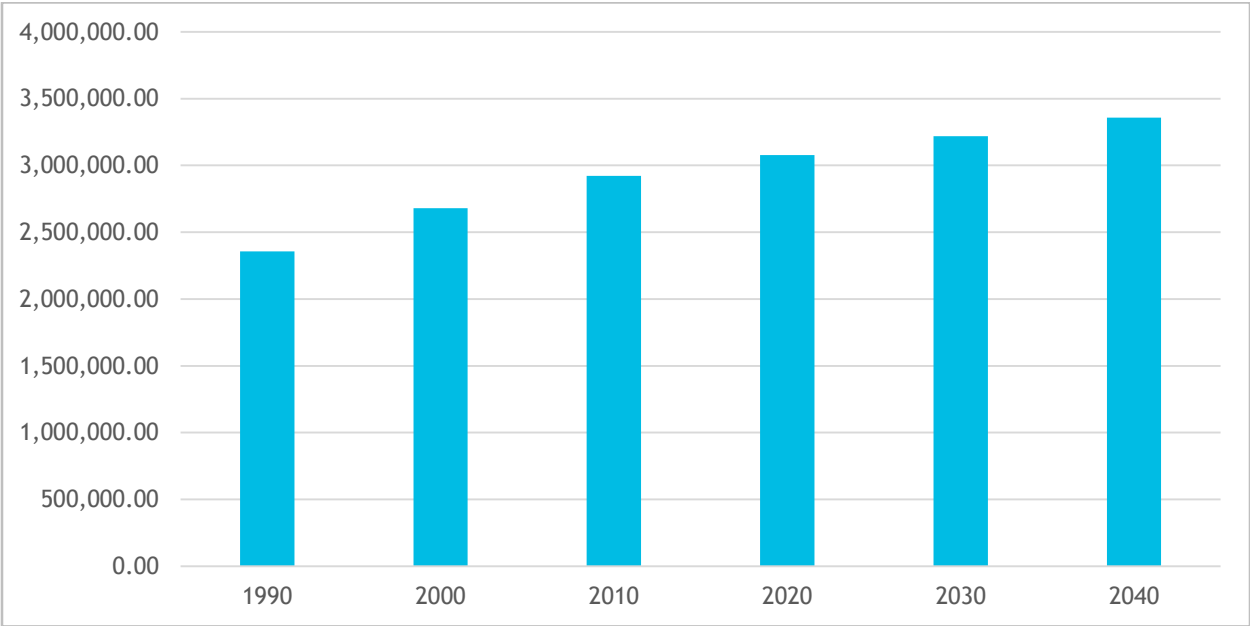
Table 1: Arkansas Population, 2010 to 2014

	Census 2010	July 1 Estimates			
		2011	2012	2013	2014
Arkansas	2,915,918	2,938,430	2,949,300	2,958,765	2,966,369

Source: U.S. Census Bureau

The Institute for Economic Advancement at the University of Arkansas at Little Rock estimates that the population in the state of Arkansas will surpass 3,350,000 by 2040, with a projected growth rate of just under one half percent per year since 2010, as shown in Figure 2.

Figure 2: Arkansas Total Population, 1990-2040



Source: Institute for Economic Advancement at the University of Arkansas at Little Rock

Arkansas showed strong population growth in the 1980s, but the rate slowed significantly between 1980 and 1990. Since 1990, the rate of growth has slightly trailed the national average as shown in Table 2.

Table 2: History of Population Growth, Arkansas and U.S., 1970 - 2014

Census Year	Total Population (000s)		Percent Increase over Previous Period		Numeric Increase over Previous Period
	AR	US	AR	US	AR
1970	1,923,322	203,302,031	*****	*****	*****
1980	2,286,435	226,542,199	18.9%	11.4%	363,113
1990	2,350,725	248,709,873	2.8%	9.8%	64,290
2000	2,673,293	281,421,906	13.2%	13.2%	322,568
2010	2,915,918	308,745,538	9.1%	9.7%	242,625
2014	2,966,369	318,857,056	1.7%	3.3%	50,451

1970-2010 - US Census Count as of April of each year
2014 - US Census Intercensal Estimate as of July 1, 2014

Table 3 shows the historical growth of Arkansas compared to its neighboring states and the nation between 2000 and 2014. Arkansas and Oklahoma slightly lagged the national average, while the growth for Tennessee was higher. The population of Texas grew at a rate twice the national average.

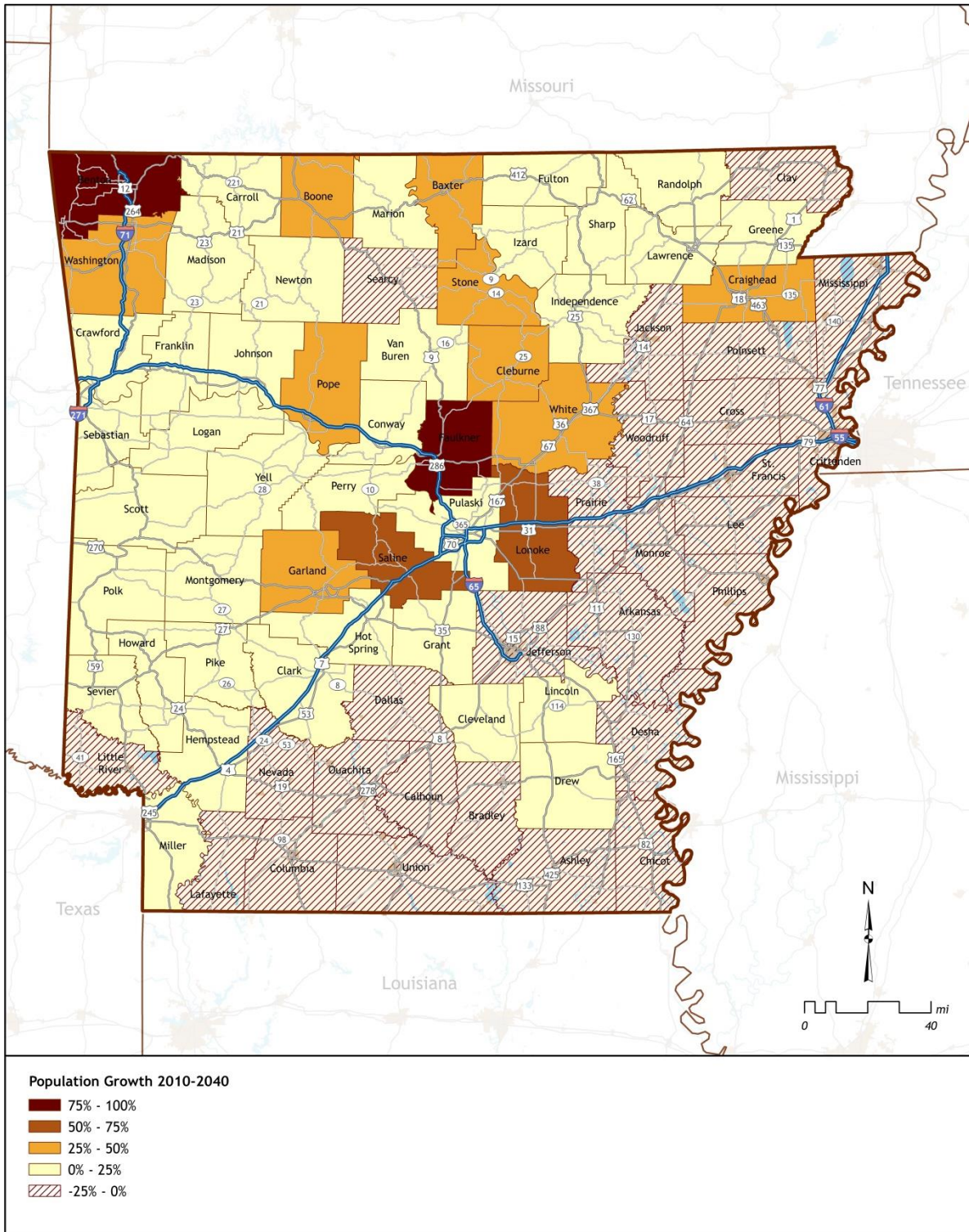
Table 3: Historical Growth of Arkansas and Neighboring States, 2000-2014

State	Population 2000	Population 2014	% Change 2000-2014
Arkansas	2,673,293	2,966,369	11.0%
Louisiana	4,469,035	4,649,676	4.0%
Mississippi	2,844,754	2,994,079	5.2%
Missouri	5,596,564	6,063,589	8.3%
Oklahoma	3,450,451	3,878,051	12.4%
Tennessee	5,689,427	6,549,352	15.1%
Texas	20,851,028	26,382,386	26.5%
United States	281,421,906	318,857,056	13.3%

Source: U.S. Census Bureau

Figure 3 shows the projected percent population change for each of the 75 counties in Arkansas from 2010 to 2040.

Figure 3: Population Growth by County, 2010 - 2040



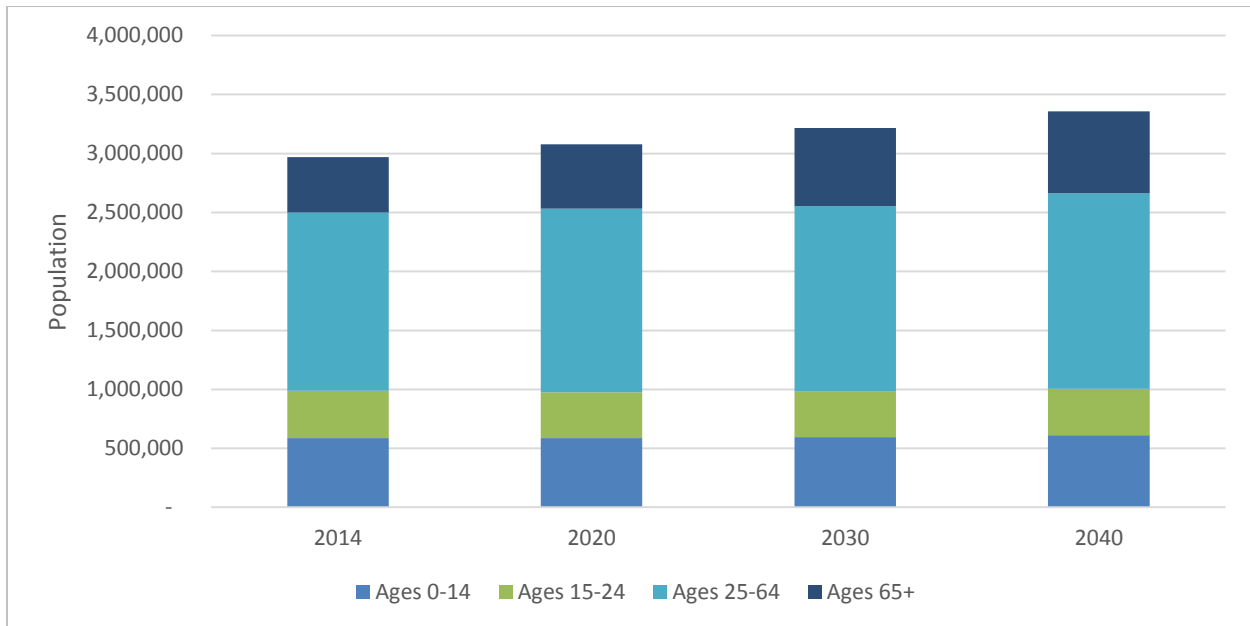
Source: Woods and Poole 2014

Appendix A shows the projected population change in Arkansas by county through the year 2040 in tabular format.

2.1 Age Distribution

The population in Arkansas is projected to increase by over 30 percent from 2014 to 2040. Figure 4 below shows the expected change in the age distribution over the next 25 years.

Figure 4: Arkansas Change in Population by Age Group



Source: Woods and Poole 2014

The population of residents under the age of 25 will remain relatively constant through 2040, while the 25-64 age group, which comprises most of the employed, will increase by about 10 percent. The 65+ age group is projected to have the largest projected increase at approximately 52 percent. In 2010, the first of the baby boomer generation turned 65, the age at which it is generally accepted that vision, hearing and reaction time begin to deteriorate. AHTD will consider the safety implications of the increasing numbers in this age group as they manage the transportation system. Although most people in this group will be leaving the work force, they will still travel and many will become more dependent on public transportation, which is challenging to deliver in many areas of the state. AHTD and urban and rural transit providers will continue to evaluate modal options to accommodate these older drivers.

3. SOCIOECONOMICS

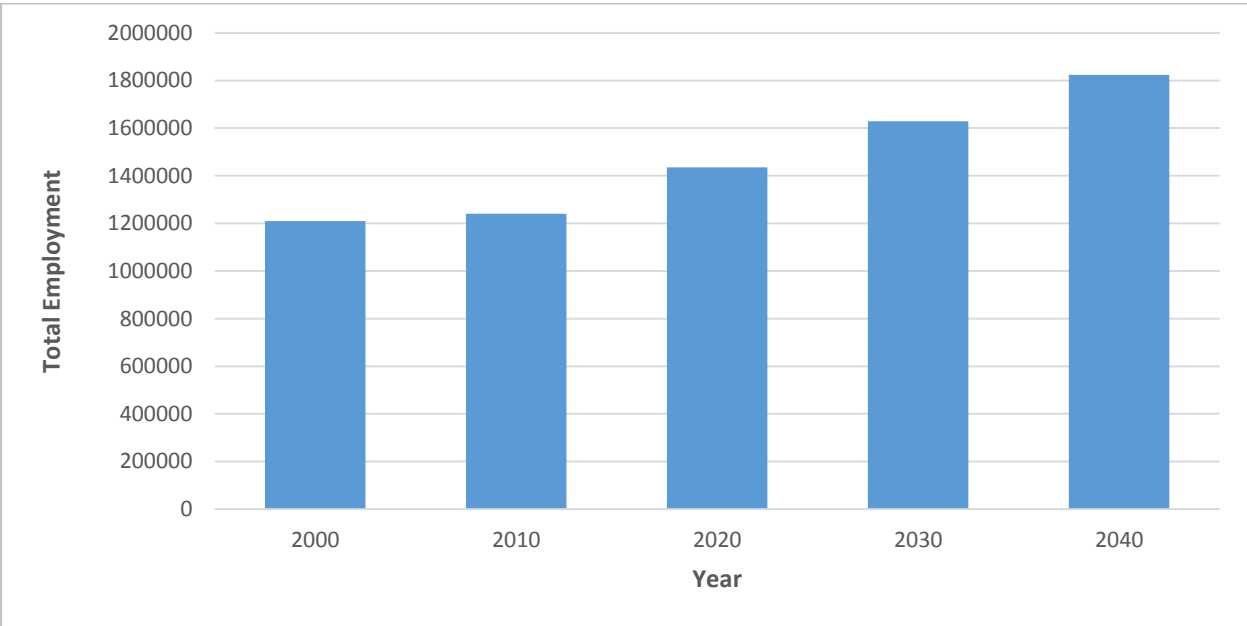
This section documents Arkansas’ historic and projected employment, economic, and commuting trends. Overall, Arkansas’ economy will continue to grow through the year 2040, which will lead to more employment opportunities in the state.

3.1 Historic and Projected Statewide Employment

3.1.1 Employment

In 2010, 1,240,509 people were employed in Arkansas, which is a 2.6 percent increase from the year 2000. Employment is projected to grow at a rate of approximately 1.3 percent per year, to over 1.8 million in 2040, as shown in **Figure 5**.

Figure 5: Arkansas Employment History and Projections, 2000-2040



Source: Bureau of Labor Statistics, Woods and Poole 2014

The majority of the state’s existing employment is located in the central and northwest regions of the state, and employment in these areas will continue to grow through 2040. This follows a national trend where more employment opportunities in urban areas bring in more people, and the addition of those people creates employment opportunities for others who will provide services to them.

Table 4 summarizes the employment status in Arkansas from 2000 to 2013. Over that period, the number of employed persons increased by less than 10,000 while the number of unemployed persons increased by more than 20,000. The number of persons in the armed forces declined by over eight percent during that period.

Table 4: Arkansas Employment Status, 2010-2013

Employment Status	2000	2013	% Change 2000-2013
Population 16 Years and Over	2,072,068	2,301,443	11.07%
In Labor Force	1,255,828	1,321,073	5.20%
Civilian Labor Force	1,249,546	1,315,343	5.27%
Employed	1,209,194	1,218,588	0.78%
Unemployed	76,147	96,755	27.06%
Armed Forces	6,282	5,730	-8.79%
Not in Labor Force	816,240	980,370	20.11%

Source: Bureau of Labor Statistics, U.S. Census Bureau and Governing.com

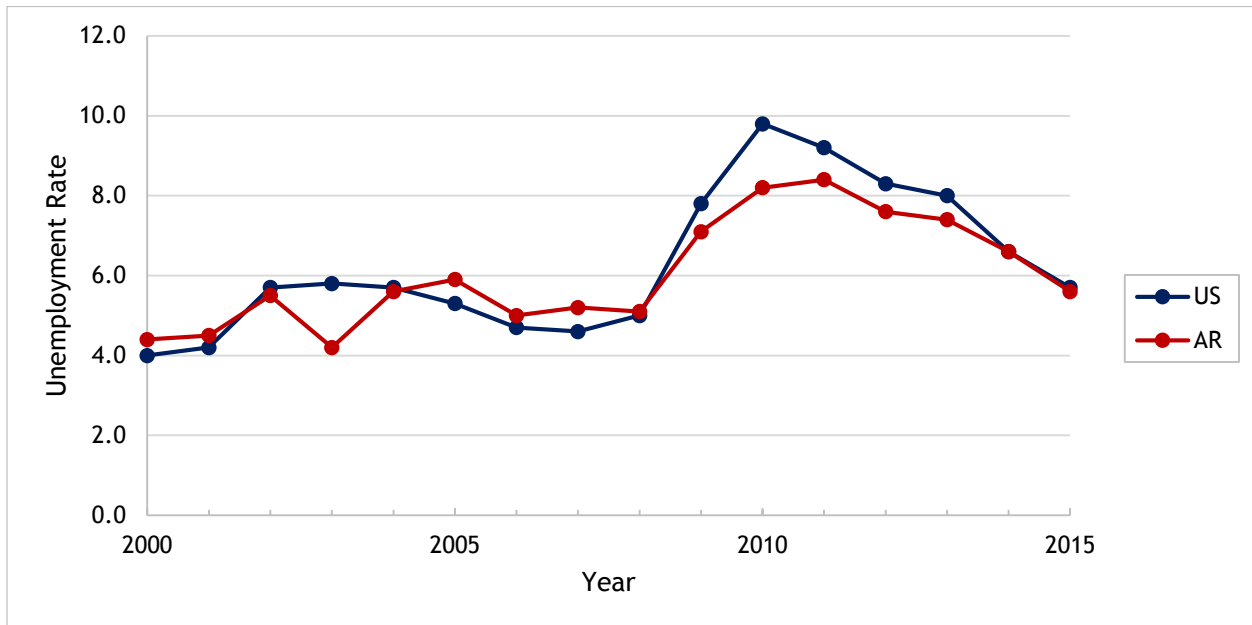
Appendix B shows the employment projections in Arkansas by county through the year 2040.

3.1.2 Unemployment Rate

The unemployment rate measures the number of people who are without work and is calculated by dividing the estimated number of unemployed people by the civilian labor force.

According to the Bureau of Labor Statistics, the unemployment rate in Arkansas has generally been slightly lower than the national unemployment rate since 2000, except for the years 2005 through 2008, as shown in **Figure 6**. This period of increase in state unemployment coincides with the national recession, where unemployment rates reached over nine percent, the highest level since the 1980s.

Figure 6: Seasonally Adjusted Unemployment Rate for Arkansas and the U.S., 2000-2015



Source: Bureau of Labor Statistics, Seasonally adjusted

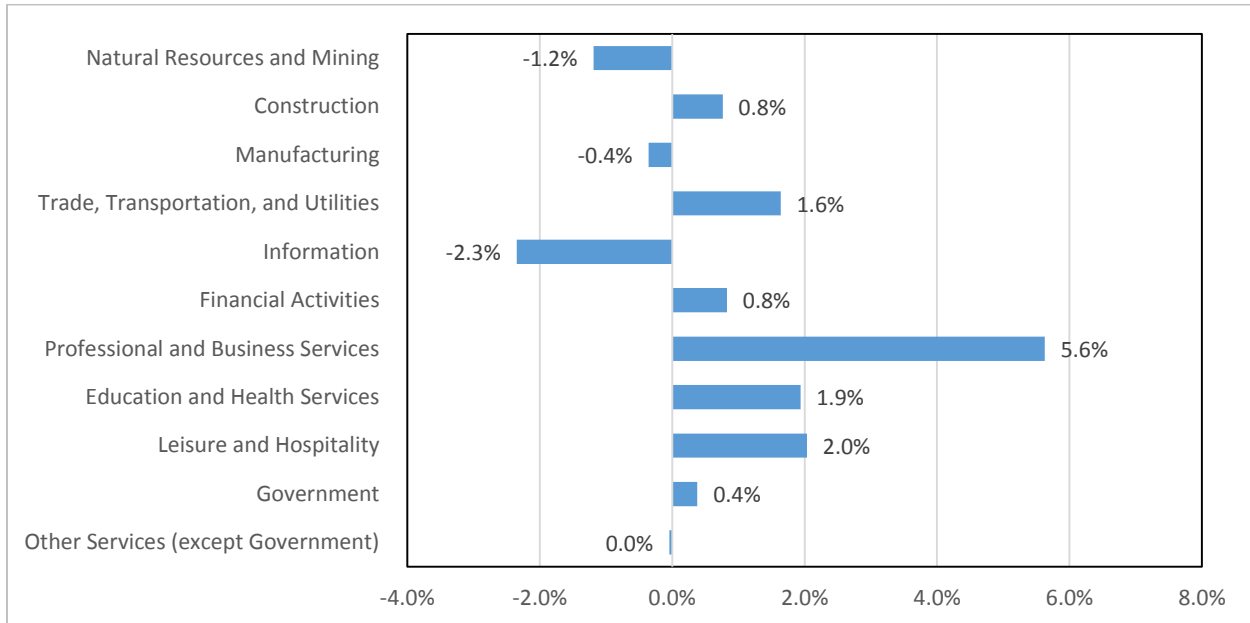
3.1.3 Employment by Industry

Industry growth provides additional jobs for Arkansas’ workers, which in turn helps the state’s economy. As shown in Table 5 and Figure 7, *Professional and Business Services* provided the largest percentage growth in Arkansas employment between 2013 and 2015.

Table 5: Growth By Industry, 2013-2015

Sector	2013	2015	Numeric Change	Percent Change
Natural Resources and Mining	19,367	19,137	-230	-1.2%
Construction	44,969	45,312	343	0.8%
Manufacturing	153,067	152,524	-543	-0.4%
Trade, Transportation, and Utilities	238,408	242,321	3913	1.6%
Information	14,190	13,857	-333	-2.3%
Financial Activities	49,597	50,007	410	0.8%
Professional and Business Services	126,844	133,980	7136	5.6%
Education and Health Services	290,239	295,864	5625	1.9%
Leisure and Hospitality	100,955	103,009	2054	2.0%
Government	97,491	97,862	371	0.4%
Other Services (except Government)	44,110	44,091	-19	0.0%

Figure 7: Arkansas Employment Change by Industry, 2013-2015



Source: Arkansas Department of Workforce Services, Discover Arkansas

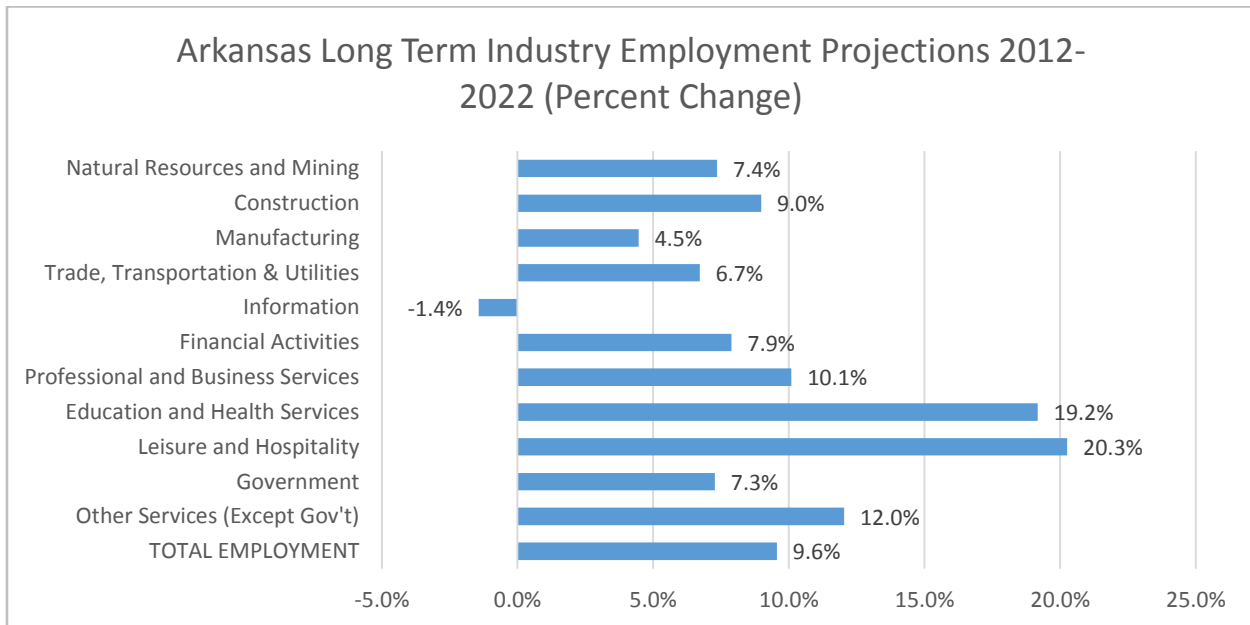
3.1.4 Employment Projections

Industry employment projections show which industries will be growing in the future and help decision-makers predict the magnitude of the expected impact on the transportation system. As shown in **Table 6** and **Figure 8**, total employment is expected to grow 9.6% through the year 2022.

Table 6: Arkansas Long-Term Industry Projections, 2012 to 2022

Sector	2012	2022	Numerical Change	Percent Change
Natural Resources and Mining	21,332	22,902	1,570	7.4%
Construction	47,287	51,532	4,245	9.0%
Manufacturing	155,259	162,196	6,937	4.5%
Trade, Transportation & Utilities	241,545	257,769	16,224	6.7%
Information	14,461	14,254	-207	-1.4%
Financial Activities	49,403	53,300	3,897	7.9%
Professional and Business Services	124,285	136,833	12,548	10.1%
Education and Health Services	280,681	334,510	53,829	19.2%
Leisure and Hospitality	102,727	123,541	20,814	20.3%
Government	99,030	106,233	7,203	7.3%
Other Services (Except Gov't)	44,494	49,850	5,356	12.0%
TOTAL EMPLOYMENT	1,421,403	1,557,350	135,947	9.6%

Figure 8: Arkansas Industry Employment Predictions, 2012-2022



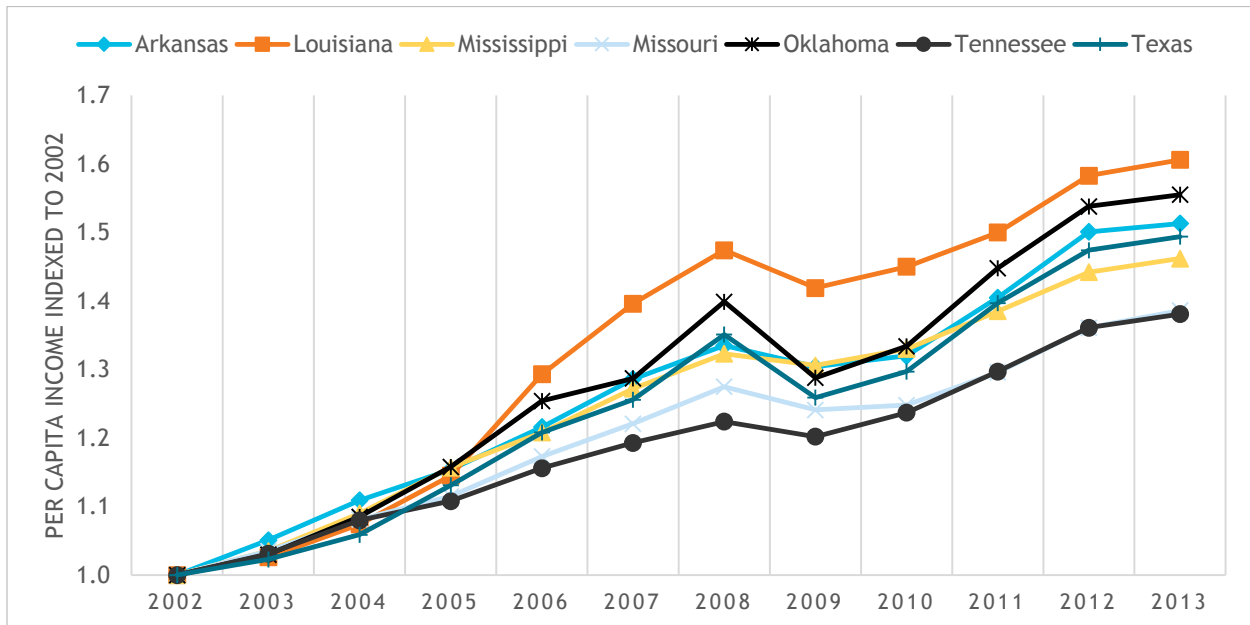
Source: Arkansas Department of Workforce Services

The *Leisure and Hospitality* and *Education and Health Services* industries are expected to see the largest increase in employment at 20.3 percent and 19.2 percent, respectively, through the year 2022. The expected increase in the number of employees in the *Natural Resources and Mining*, *Construction*, *Manufacturing* and *Trade, and Transportation and Utilities* industries shows that these industries will continue to grow and add increased stress on the transportation system due to their heavy loads. AHTD will need to continue to improve the capacity and structural integrity of the transportation system in order to address these needs.

3.1.5 Income and Poverty Status

Per capita personal income in Arkansas has grown 53 percent since 2002, from \$23,512 to \$36,086 in 2013. This was the third highest growth rate when compared to the neighboring states, trailing only Louisiana and Oklahoma, as shown in **Figure 9**.

Figure 9: Change in per Capita Income, Arkansas and Neighboring States, 2002-2013



Source: Bureau of Economic Analysis, GDP and Personal Income, Regional Data

While the growth in income has been good, Arkansas still trails the national average by a significant amount.

National studies by the Transportation Research Board have demonstrated that there is a strong relationship between rising income and workers who choose to drive alone as part of their journey to work. In 2013, Arkansas ranked 48th in the nation with a median household income of \$40,457, which was about 22 percent less than the U.S. median income of \$52,176. Married households in Arkansas earned \$50,600 as shown in Table 7.

Table 7: Arkansas Median Income, 2013 Estimate

Median Income	Arkansas	U.S.
Median Household Income	\$40,457	\$52,176
Median Family Income	\$50,600	\$63,784
Married-couple family	\$60,620	\$77,279
Male householder, no spouse present	\$34,327	\$43,567
Female householder, no spouse present	\$23,831	\$30,993

Source: U.S. Census 2013 ACS 3-Year Estimate, Table S0201

In Arkansas, almost 15 percent of all families and nearly 39 percent of all households with a single female parent are living in poverty. Almost 20 percent of all people in Arkansas and 29 percent of all children are living below the poverty line. Arkansans have higher poverty levels than the National average in all areas as shown in Table 8.

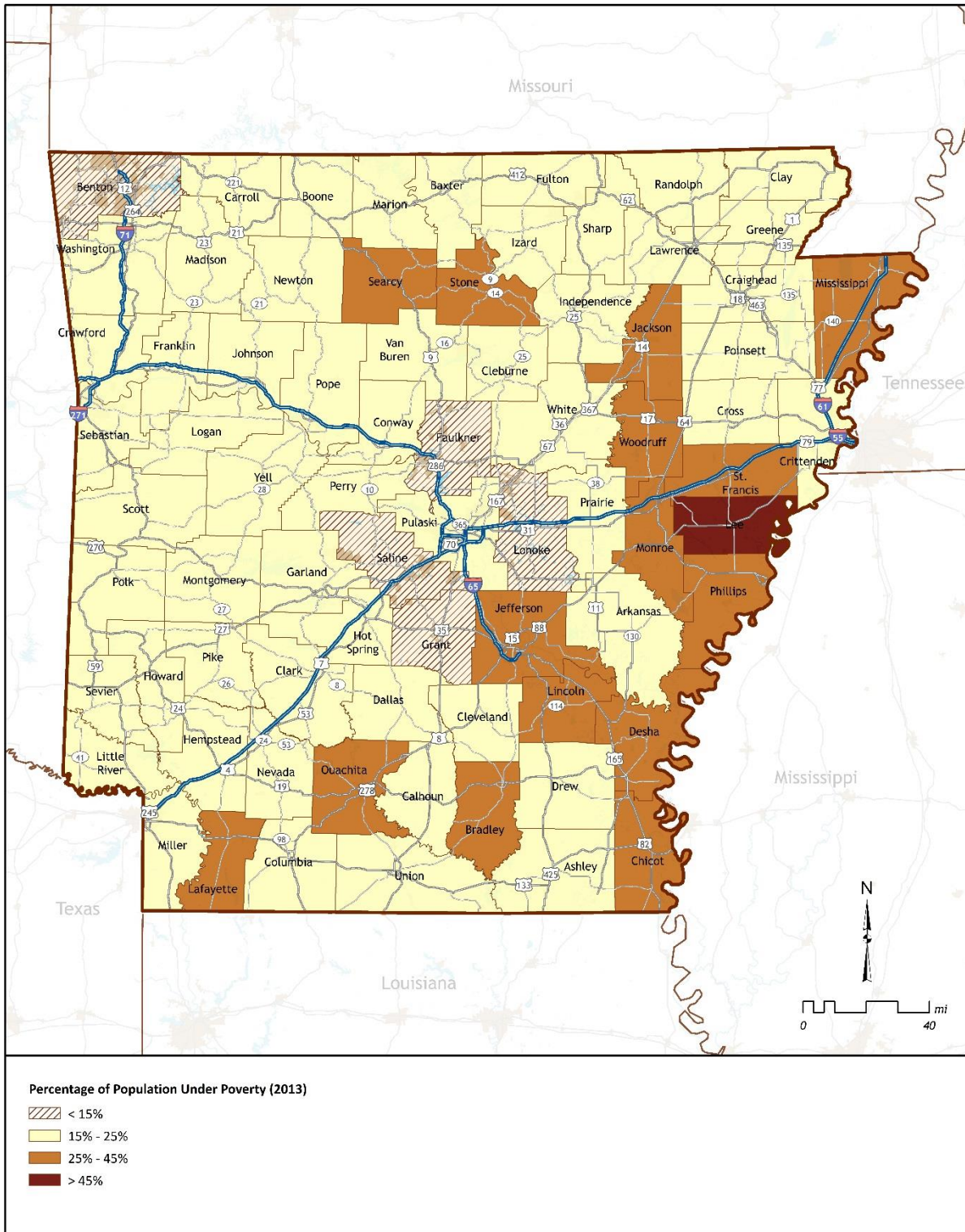
Table 8: Arkansas Poverty Rates for Families, 2013 Estimate

Poverty Rate	Arkansas	U.S.
All Families	14.6%	11.7%
Married couple families	7.3%	5.8%
Female householder, no husband present, family	38.6%	31.3%
All people	19.6%	15.9%
Under 18 years	28.4%	22.4%
18 to 64 years	18.3%	14.8%
65 years and over	10.5%	9.5%

Source: U.S. Census 2013 ACS 3-Year Estimate, Table S0201

Figure 10 shows the percent of county population living under the poverty level. Poverty leads to fewer transportation options due to fewer vehicles being available, and forces people to utilize other modes of transportation such as bicycle/pedestrian and public transit.

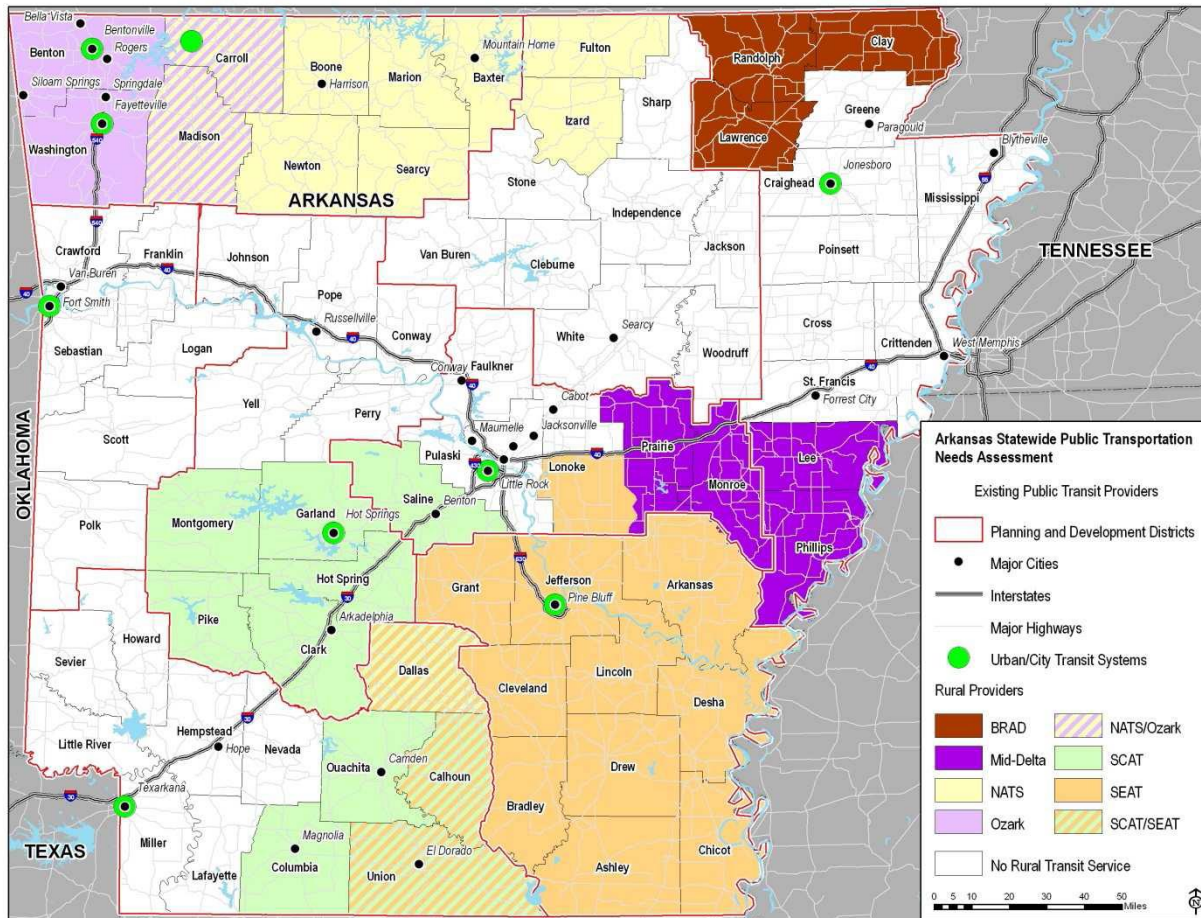
Figure 10: Percentage of Population below the Poverty Level, by County (2013)



Source: Woods and Poole 2013

The map from the Arkansas Statewide Public Transportation Needs Assessment in **Figure 11** shows the public transit providers throughout the state. The rural southeast portion of the state is well served by four transit providers, while the southwest and north central counties do not have transit service. AHTD will need to continue to work with transit providers to improve transit service to all Arkansans.

Figure 11: Arkansas Public Transit Agencies



Source: Arkansas Public Transit Needs Assessment Final Report, 2012

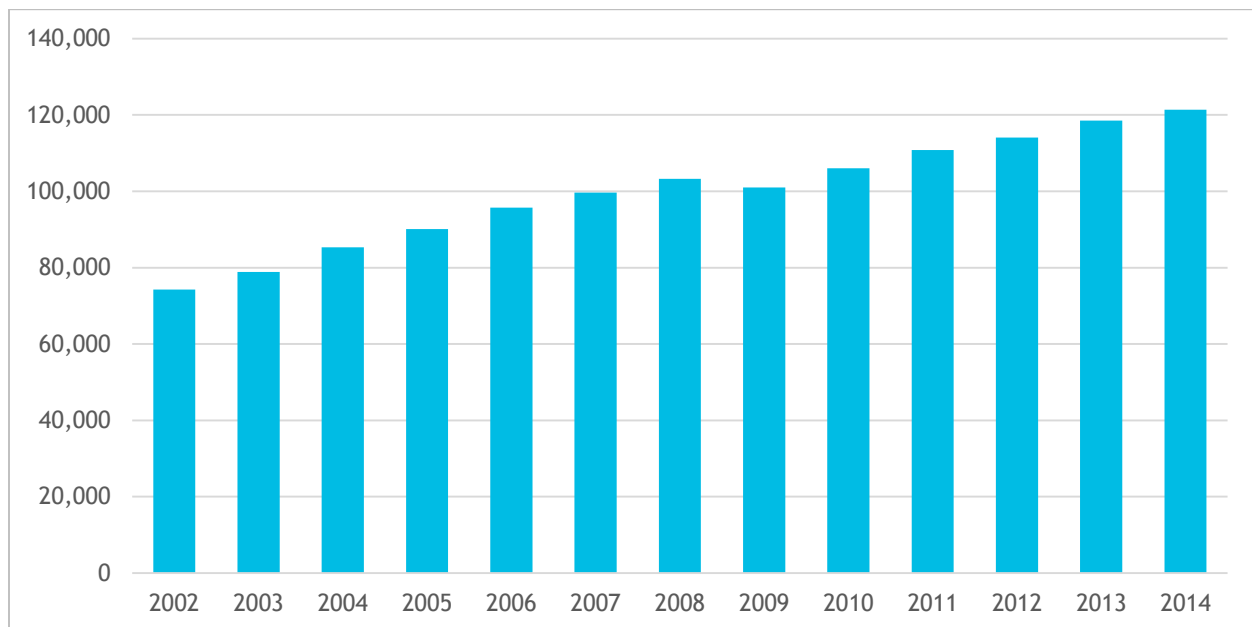
The economically diverse population in Arkansas requires that AHTD provide quality routes for automobile transportation, while also supporting the continued development of other modes to ensure that all Arkansans have access to transportation facilities.

3.1.6 Economic Factors

Gross State Product (GSP) is the output of goods and services produced by labor and property and is the broadest measure of economic activity. The Bureau of Economic Analysis (BEA) releases GSP data, which is presented below for the State of Arkansas.

As shown in **Figure 12**, Arkansas' GSP increased steadily from 2002-2008, followed by a slight decrease in 2009 that coincided with the national recession. Since that time, Arkansas' GSP has increased steadily from \$101 billion in 2009 to \$121 billion in 2014, an annualized increase of approximately 3.7 percent per year, which is nearly equal to a reasonable inflation percentage.

Figure 12: Arkansas Gross State Product, 2002 through 2014, Current Dollars (Billions)



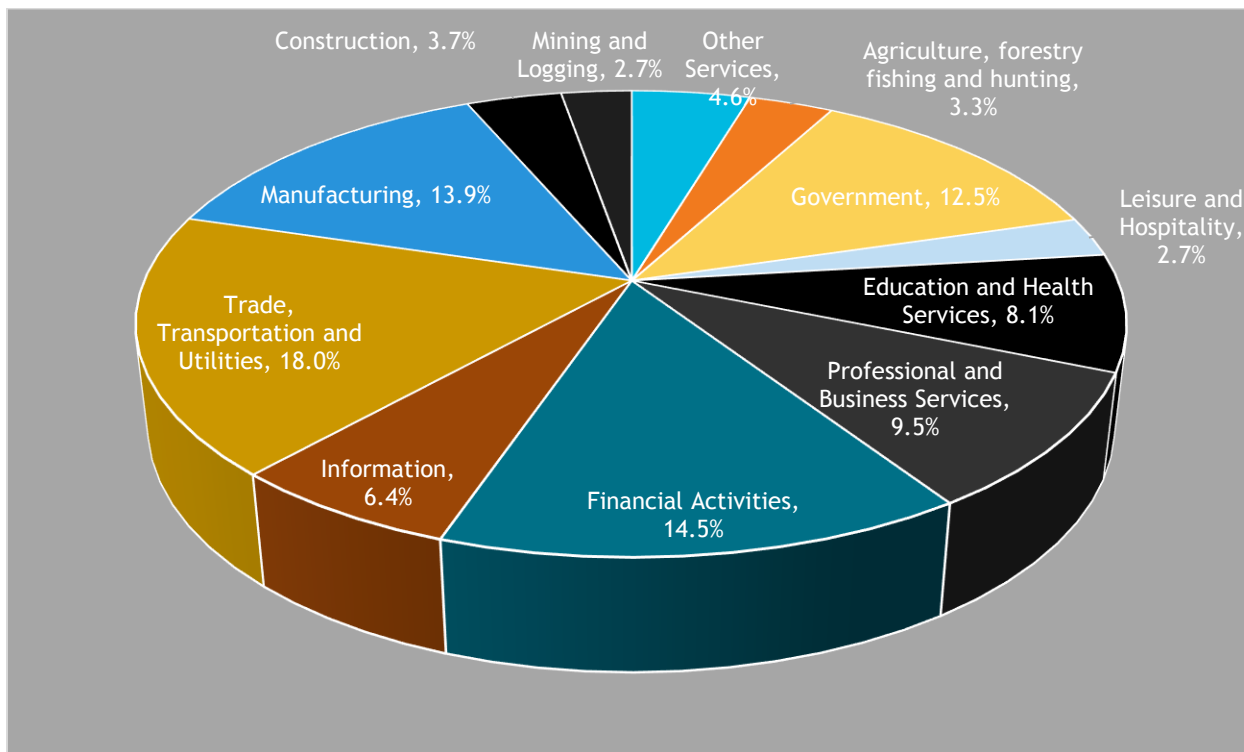
Source: Bureau of Economic Analysis, U.S. Department of Commerce

As shown in **Figure 13**, eleven main industry sectors contributed to Arkansas' GSP in 2014, with *Trade, Transportation and Utilities* being the largest contributor at 18 percent, followed by *Financial Activities* at 15 percent.

Figure 14 compares the change in Arkansas' GSP with that of neighboring states. GSP growth in Arkansas was fourth highest of the seven states.

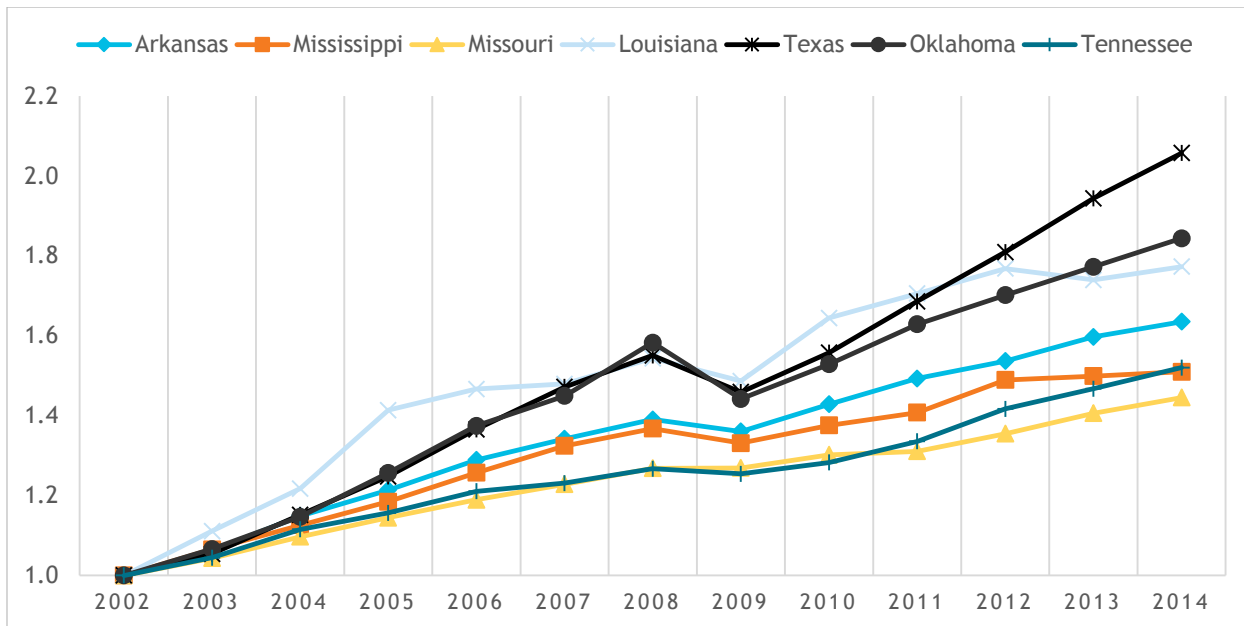
The increasing GSP in surrounding states also impacts the Arkansas transportation system, with goods from those states moving through the Arkansas, usually by truck or rail, on their way to their final destination.

Figure 13: Industry Share of Arkansas GSP, 2014



Source: Bureau of Economic Analysis, U.S. Department of Commerce

Figure 14: Change in GSP, Arkansas vs. Neighboring States (2002-2014)



Source: Bureau of Economic Analysis, U.S. Department of Commerce

3.1.7 Commuting Patterns

Where people work and how they commute are important factors to consider in long range transportation planning. The average travel time to work for Arkansas workers is 21 minutes as shown in **Table 9**. This is less than the national average of 25.8 minutes. Those who carpool average almost 24 minutes travel time, while those using public transit average 31 minutes. 83 percent of workers drive to work alone, while the remaining 17 percent use an alternate mode: carpooling, public transit, walking, bicycling or telecommuting. Those workers with a disability are more likely to use an alternate mode than the overall population.

Table 9: Arkansas Commute to Work by Mode and Travel Time

Commuting to Work	Total Population	With a Disability
Workers 16 years and over	1,223,214	85,316
Car, Truck, or Van - drove alone	83.4%	77.0%
Car, Truck, or Van - carpooled	10.1%	13.1%
Public Transportation (Excluding Taxicab)	0.5%	1.3%
Walked	1.7%	2.2%
Other Means	1.5%	3.2%
Worked at Home	2.8%	3.3%
Mean Travel Time to work (minutes)	21.4	
Car, Truck, or Van - drove alone	21.2	
Car, Truck, or Van - carpooled	23.9	
Public Transportation (Excluding Taxicab)	31.1	

Source: U.S. Census 2013 ACS 1-Year Estimates, Tables S0201, S0802, S1811

Table 10 shows the relationship between Arkansans and their place of work. Nearly one fourth of the residents of Arkansas travel outside their county of residence to work, which underscores the importance of an efficient transportation system in supporting the economy.

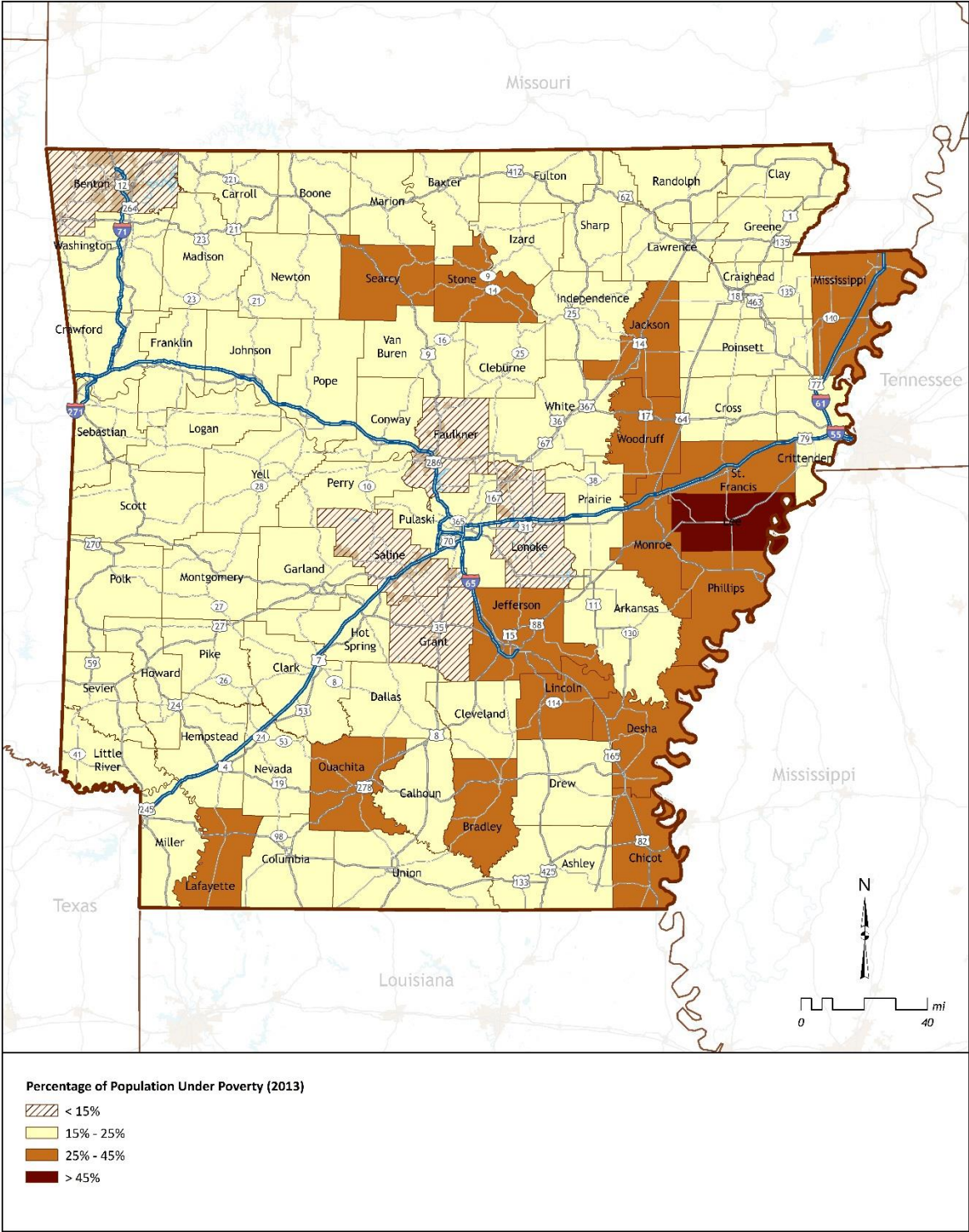
Table 10: Arkansas Place of Work, State and County Level

	Estimate	Percent of Total Workers
Workers 16 Years and Over	1,223,214	--
Worked in Arkansas	1,180,787	96.5%
Worked in County of Residence	911,489	74.5%
Worked outside of County of Residence	269,298	22.0%
Worked Outside of Arkansas	42,427	3.5%

Source: U.S. Census 2013 ACS Table B08130

The map in **Figure 15** shows the average travel time to work for residents of each county in Arkansas. Workers in counties surrounding the more populated areas have longer commutes into the cities that offer more employment opportunities.

Figure 15: Average Travel Time to Work by County

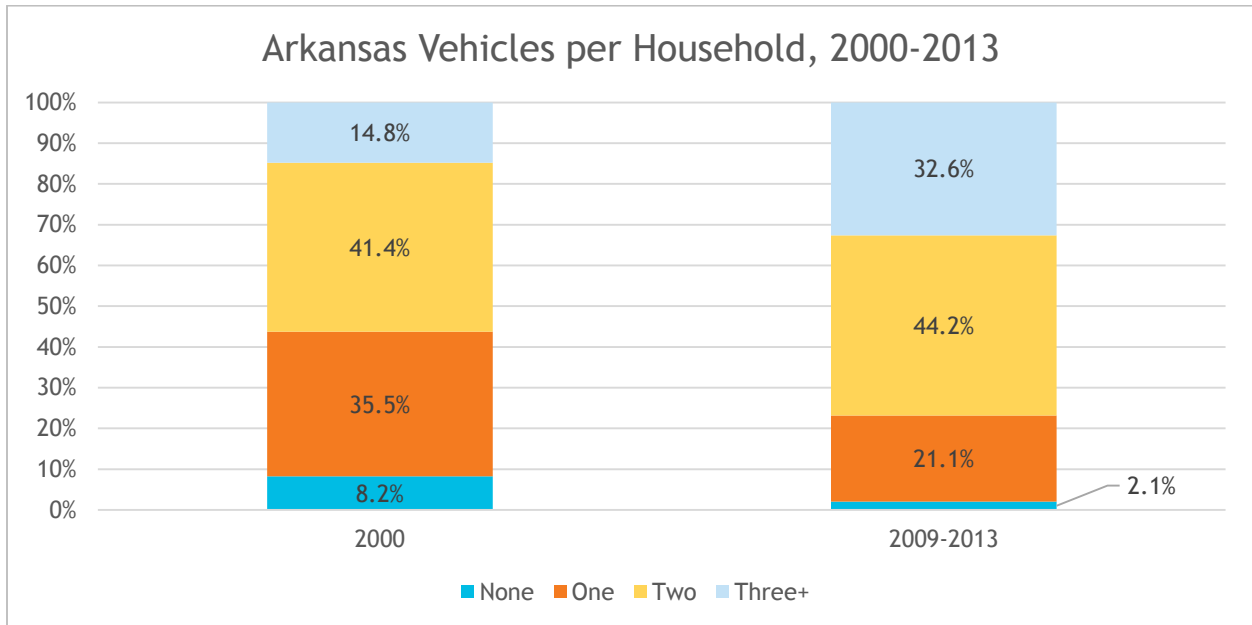


Source: US Census 2013 ACS Table B08303

3.1.8 Vehicle Ownership

Over 75 percent of Arkansas households have access to two or more vehicles as shown in **Figure 16**. The number of households with access to multiple vehicles has increased by over 20 percent since the year 2000. The percentage of households with no vehicles decreased from 8 percent in 2000 to 2 percent in 2013.

Figure 16: Vehicles Available Per Household, Arkansas

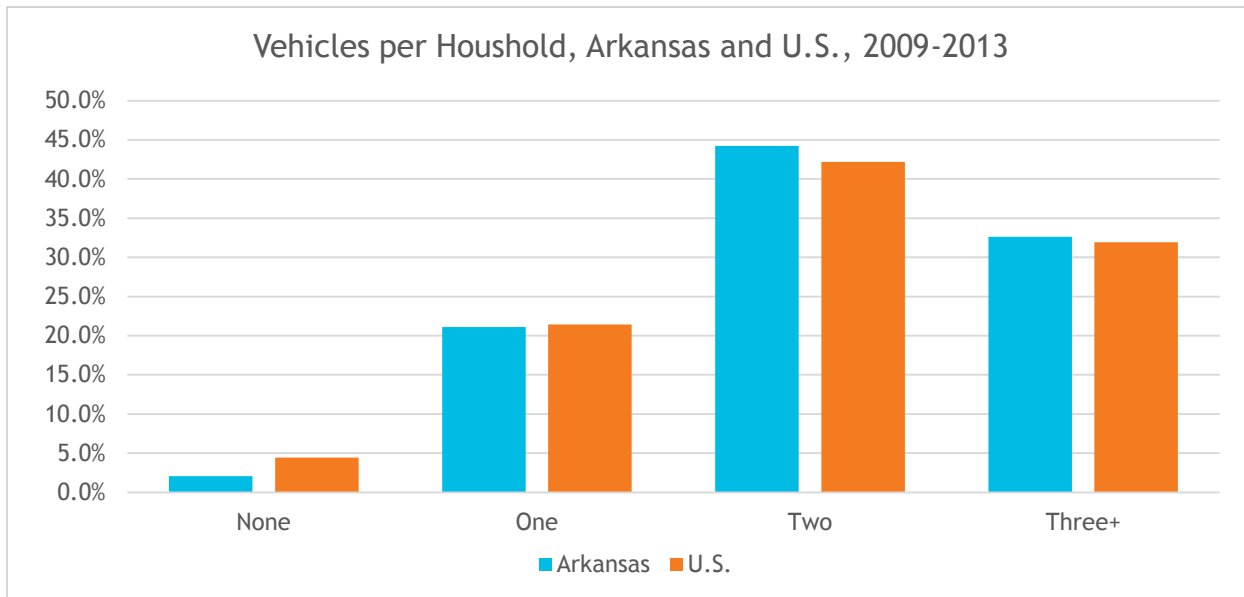


Source: U.S. Census ACS 5 Year Estimates (2009-2013) Table S0802; 2000 Census Table QT-H11

3.1.9 Vehicle Miles of Travel

Figure 17 compares the vehicles available per household in Arkansas and the vehicles available per household in the U.S. This figure illustrates that the number of vehicles per household in Arkansas is fairly consistent with the national average.

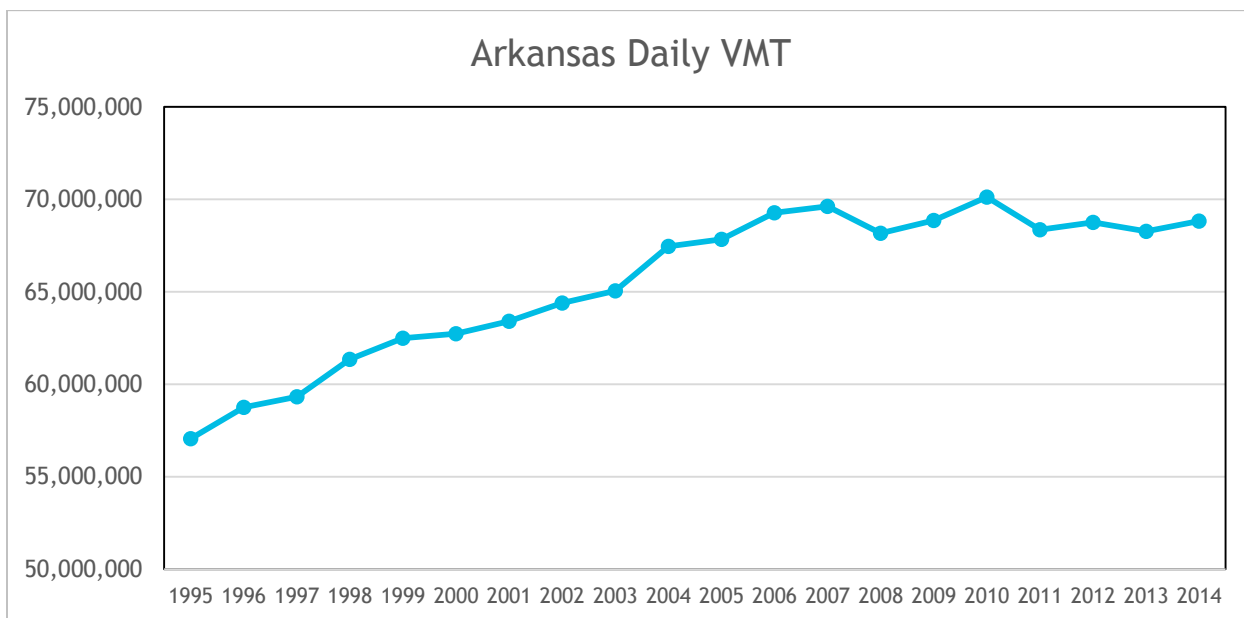
Figure 17: Vehicles Available Per Household, Arkansas and U.S.



Source: U.S. Census ACS 5 Year Estimates (2009-2013) Table S0802

Trends in Daily Vehicle Miles of Travel (DVMT) can be a valuable indicator of future needs of the transportation system. As shown in **Figure 18**, DVMT on state maintained roads in Arkansas grew at a fairly constant rate of approximately 1.5 percent per year from 1995 until 2008. There was a decline coinciding with a nationwide increase in gasoline prices in 2008, followed by a rebound leading up to 2010. DVMT has since followed a narrow range between 68 million and 69 million as gas prices returned to lower levels.

Figure 18: Arkansas Daily VMT on State Maintained Roads, 1995-2014



Source: Arkansas Highway and Transportation Department. Road and Street Mileage Reports

Although VMT has been fairly constant since 2010, the national transportation research group TRIP estimates that vehicle miles of travel in Arkansas will increase from 33.5 billion in 2010 to 47 billion by 2030, an increase of 40 percent. This is a significant increase, and careful planning will be required by AHTD to accommodate these additional vehicles.

4. TECHNOLOGY

4.1 Autonomous and Connected Vehicles

With the advent of technology that allows vehicles to send and receive information to and from other vehicles and with their surrounding infrastructure, AHTD should consider gradually adapting the transportation system to take advantage of the benefits this new technology provides. The lack of funding available to departments of transportation across the country leaves them unable to adequately address the capacity limitations and safety needs necessary to deliver a first-class transportation system. *Autonomous vehicles (AV)*, those that take advantage of this new technology, could help make the roadways safer and more efficient at a much lower cost than traditional infrastructure improvements.

In tests across the U.S. and other countries, autonomous vehicles have already proven to be safer than vehicles under the complete control of the driver. Tests showed that connected vehicles had a faster response time and more appropriate braking pressure, which significantly reduced the speed at impact, and in some cases, avoided crashes altogether.

Testing for the effects of these vehicles on roadway capacity has moved slower than safety testing because of the lack of a real-world testing grounds. However, it is logical to assume that vehicles that are “shielded” from crashes by this new technology will be able to travel closer together, and possibly at higher speeds, thereby increasing the capacity of the existing roads.

This technology can also be applied to heavy trucks, or *Autonomous Freight Vehicles (AFV)*. AFVs have also had limited testing to this point, but the expectation is that this technology could lead to “road trains”, or several trucks traveling along the freeway under the control of a single driver.

An initial investment by AHTD in roadside communication devices that allow the vehicles to communicate with the infrastructure will be required. These devices will include advanced signal controllers and roadside “stations” that allow for continuous data exchange.

This technology is still in the early stages of development. It is expected that fully autonomous vehicles, those that allow a driver to choose a destination and give the vehicle full control, will be available by 2040. In preparation for this new technology, AHTD should:

- Investigate the legislation necessary to allow for the operation of these vehicles.
- Consider the need for the necessary communication infrastructure in future designs so that the technology is not prevented from being implemented when it is available.
- Consider the effects that “road trains” could have on the pavement, and design accordingly.

4.2 Telecommuting

The connectivity of the internet has allowed more people to work from home, or telecommute. This work arrangement has advanced to the point that workers can have the same access to work related information in their home as they do at the office. The Federal Highway Administration and other Federal agencies already allow employees to telecommute, and many private businesses have similar arrangements with their employees. An increase in this new technology could reduce peak hour traffic demand, thereby reducing the capacity requirements of the highways.

4.3 Retail

The internet has also begun to transform the retail industry, with many consumers electing to shop from home instead of traveling to traditional businesses. As this shift continues, it will result in fewer shopping trips for automobiles and an increase in the number of trucks on the road to deliver products. This will have a major effect on the established shipping networks, with single items now being delivered directly to the consumer. AHTD must coordinate with shippers to understand implications to the transportation network.

Drone deliveries are also on the horizon, though the government has yet to issue regulations to control their implementation. This new technology could also cause a major shift in transportation patterns, possibly resulting in a decrease in the number of trucks on the road, but at the expense of logistical and safety concerns that have yet to be defined. Considering the serious implications that drones would have on the transportation system, AHTD can expect to have a seat at the table when regulations for drone deliveries are drafted, and must be prepared for the coming changes.

5. TRANSPORTATION IMPLICATIONS

The state’s total population will continue to increase, affecting future travel demand. Total population is expected to increase by over 30 percent by 2040. The majority of this growth will be in the 25-64 age group. These people make up the majority of the Arkansas work force, and the population increase in this group will result in higher traffic demand.

The growth in population will be greatest in existing population centers. Similar to other states across the nation, the most heavily populated areas in Arkansas are growing the fastest, while the rural areas have less growth or are even declining in population. AHTD must address the growing congestion in urban areas, while continuing to maintain the existing transportation system in the rural areas.

The population 65 and over will continue to increase. The total number of people 65 and over in the state is expected to increase by 52 percent by 2040. AHTD will need to provide a transportation system that is safer and more user-friendly to address the slowing cognitive and physiological skills of this age group. This group is also more likely to use other modes of transportation such as transit and bicycle/pedestrian facilities. AHTD should strive to improve connections to these options.

Total employment is expected to increase through 2040. Total employment will increase by 47 percent by 2040. In the near term, most workers will continue to use the highway system for their daily commute. As employment growth continues, AHTD’s ability to address all capacity needs will diminish, and the need to expand transit services will become more pronounced. Improving all modes of the transportation system will be vital in order to promote continued economic growth in Arkansas.

Most Arkansas commuters still prefer to drive alone. 83 percent of Arkansas workers drive alone to work each day. Studies show that more affluent drivers prefer to commute alone. As the Arkansas economy continues to grow, commuters are more likely to travel in their own vehicles. Traffic Demand Management strategies (flexible work hours, telecommuting), Transportation System Management (managed lanes, ITS), and shifts to other modes could help ease urban congestion and the burden on the road system. AHTD should expand efforts to apply these strategies in order to get maximum benefit from the existing transportation infrastructure. **Autonomous vehicles will be a reality.** Autonomous vehicles have the potential to drastically change transportation in the next 25 years. By 2020, vehicle to vehicle sensors should be available to help prevent accidents. By 2040, vehicles and the transportation infrastructure are expected to be developed to the point that passengers will enter the vehicle, select their destination, and rely on the vehicle to get them there while they focus on other activities. This poses a number of challenges and opportunities for state DOTs.

APPENDIX A - POPULATION BY COUNTY, 2010-2040

County	2010 Population	2040 Population	30 Year Growth	AAGR
(STATEWIDE)	2,915,918	3,828,839	31.3%	0.91%
ARKANSAS	19,019	17,230	-9.4%	-0.33%
ASHLEY	21,853	20,275	-7.2%	-0.25%
BAXTER	41,513	57,867	39.4%	1.11%
BENTON	221,339	484,482	118.9%	2.65%
BOONE	36,903	52,216	41.5%	1.16%
BRADLEY	11,508	10,812	-6.0%	-0.21%
CALHOUN	5,368	5,309	-1.1%	-0.04%
CARROLL	27,446	32,386	18.0%	0.55%
CHICOT	11,800	9,861	-16.4%	-0.60%
CLARK	22,995	23,296	1.3%	0.04%
CLAY	16,083	15,561	-3.2%	-0.11%
CLEBURNE	25,970	36,903	42.1%	1.18%
CLEVELAND	8,689	9,985	14.9%	0.46%
COLUMBIA	24,552	23,445	-4.5%	-0.15%
CONWAY	21,273	24,558	15.4%	0.48%
CRAIGHEAD	96,443	120,557	25.0%	0.75%
CRAWFORD	61,948	74,452	20.2%	0.61%
CRITTENDEN	50,902	52,000	2.2%	0.07%
CROSS	17,870	17,154	-4.0%	-0.14%
DALLAS	8,116	7,350	-9.4%	-0.33%
DESHA	13,008	10,935	-15.9%	-0.58%
DREW	18,509	20,384	10.1%	0.32%
FAULKNER	113,237	226,732	100.2%	2.34%
FRANKLIN	18,125	20,924	15.4%	0.48%
FULTON	12,245	14,058	14.8%	0.46%
GARLAND	96,024	134,315	39.9%	1.12%
GRANT	17,853	23,055	29.1%	0.86%
GREENE	42,090	46,371	10.2%	0.32%
HEMPSTEAD	22,609	24,811	9.7%	0.31%
HOT SPRING	32,923	42,006	27.6%	0.82%
HOWARD	13,789	14,577	5.7%	0.19%
INDEPENDENCE	36,647	46,745	27.6%	0.81%
IZARD	13,696	19,930	45.5%	1.26%
JACKSON	17,997	16,663	-7.4%	-0.26%
JEFFERSON	77,435	76,550	-1.1%	-0.04%
JOHNSON	25,540	30,149	18.0%	0.55%
LAFAYETTE	7,645	6,659	-12.9%	-0.46%
LAWRENCE	17,415	18,316	5.2%	0.17%
LEE	10,424	8,348	-19.9%	-0.74%

County	2010 Population	2040 Population	30 Year Growth	AAGR
LINCOLN	14,134	14,380	1.7%	0.06%
LITTLE RIVER	13,171	13,791	4.7%	0.15%
LOGAN	22,353	25,326	13.3%	0.42%
LONOKE	68,356	105,718	54.7%	1.46%
MADISON	15,717	18,409	17.1%	0.53%
MARION	16,653	18,956	13.8%	0.43%
MILLER	43,462	52,694	21.2%	0.64%
MISSISSIPPI	46,480	43,131	-7.2%	-0.25%
MONROE	8,149	7,763	-4.7%	-0.16%
MONTGOMERY	9,487	11,634	22.6%	0.68%
NEVADA	8,997	9,345	3.9%	0.13%
NEWTON	8,330	9,943	19.4%	0.59%
OUACHITA	26,120	27,012	3.4%	0.11%
PERRY	10,445	14,101	35.0%	1.01%
PHILLIPS	21,757	17,281	-20.6%	-0.76%
PIKE	11,291	12,033	6.6%	0.21%
POINSETT	24,583	24,687	0.4%	0.01%
POLK	20,662	25,007	21.0%	0.64%
POPE	61,754	88,075	42.6%	1.19%
PRAIRIE	8,715	7,948	-8.8%	-0.31%
PULASKI	382,748	459,463	20.0%	0.61%
RANDOLPH	17,969	20,223	12.5%	0.39%
ST. FRANCIS	28,258	27,033	-4.3%	-0.15%
SALINE	107,118	183,911	71.7%	1.82%
SCOTT	11,233	12,686	12.9%	0.41%
SEARCY	8,195	8,045	-1.8%	-0.06%
SEBASTIAN	125,744	168,497	34.0%	0.98%
SEVIER	17,058	18,859	10.6%	0.34%
SHARP	17,264	19,752	14.4%	0.45%
STONE	12,394	16,489	33.0%	0.96%
UNION	41,639	43,885	5.4%	0.18%
VAN BUREN	17,295	21,180	22.5%	0.68%
WASHINGTON	203,065	243,077	19.7%	0.60%
WHITE	77,076	110,778	43.7%	1.22%
WOODRUFF	7,260	5,978	-17.7%	-0.65%
YELL	22,185	24,522	10.5%	0.33%

APPENDIX B - EMPLOYMENT BY COUNTY, 2010-2040

County	2010 Employment	2040 Employment	30 Year Growth	AAGR
(STATEWIDE)	1,240,509	1,823,079	47.0%	1.29%
ARKANSAS	10,196	12,035	18.0%	0.55%
ASHLEY	8,483	9,391	10.7%	0.34%
BAXTER	14,913	21,590	44.8%	1.24%
BENTON	103,239	218,737	111.9%	2.53%
BOONE	16,777	24,674	47.1%	1.29%
BRADLEY	3,621	4,568	26.2%	0.78%
CALHOUN	910	1,003	10.2%	0.32%
CARROLL	10,099	13,206	30.8%	0.90%
CHICOT	4,097	4,952	20.9%	0.63%
CLARK	10,229	13,083	27.9%	0.82%
CLAY	5,245	5,851	11.6%	0.37%
CLEBURNE	7,781	12,071	55.1%	1.47%
CLEVELAND	1,061	1,336	25.9%	0.77%
COLUMBIA	9,941	10,823	8.9%	0.28%
CONWAY	7,848	10,650	35.7%	1.02%
CRAIGHEAD	45,053	74,444	65.2%	1.69%
CRAWFORD	25,257	34,043	34.8%	1.00%
CRITTENDEN	16,964	21,025	23.9%	0.72%
CROSS	5,922	7,158	20.9%	0.63%
DALLAS	2,994	3,863	29.0%	0.85%
DESHA	5,090	6,389	25.5%	0.76%
DREW	7,059	9,496	34.5%	0.99%
FAULKNER	43,240	94,936	119.6%	2.66%
FRANKLIN	5,001	6,592	31.8%	0.92%
FULTON	2,838	3,804	34.0%	0.98%
GARLAND	36,190	57,281	58.3%	1.54%
GRANT	4,172	5,402	29.5%	0.86%
GREENE	16,335	19,670	20.4%	0.62%
HEMPSTEAD	9,044	12,020	32.9%	0.95%
HOT SPRING	8,603	13,150	52.9%	1.42%
HOWARD	7,442	8,836	18.7%	0.57%
INDEPENDENCE	18,418	25,846	40.3%	1.14%
IZARD	3,793	6,304	66.2%	1.71%
JACKSON	5,826	6,658	14.3%	0.45%
JEFFERSON	33,816	35,266	4.3%	0.14%
JOHNSON	9,140	11,498	25.8%	0.77%
LAFAYETTE	1,579	1,810	14.6%	0.46%
LAWRENCE	4,765	5,528	16.0%	0.50%
LEE	2,352	2,694	14.5%	0.45%

County	2010 Employment	2040 Employment	30 Year Growth	AAGR
LINCOLN	3,579	4,118	15.1%	0.47%
LITTLE RIVER	4,432	4,921	11.0%	0.35%
LOGAN	6,483	8,140	25.6%	0.76%
LONOKE	15,027	22,943	52.7%	1.42%
MADISON	4,229	5,905	39.6%	1.12%
MARION	3,592	4,499	25.3%	0.75%
MILLER	14,160	19,023	34.3%	0.99%
MISSISSIPPI	18,371	20,502	11.6%	0.37%
MONROE	2,510	2,817	12.2%	0.39%
MONTGOMERY	2,048	2,819	37.6%	1.07%
NEVADA	2,626	2,914	11.0%	0.35%
NEWTON	1,751	2,517	43.7%	1.22%
OUACHITA	10,573	11,772	11.3%	0.36%
PERRY	1,873	2,609	39.3%	1.11%
PHILLIPS	7,110	7,746	8.9%	0.29%
PIKE	2,991	3,301	10.4%	0.33%
POINSETT	5,606	6,835	21.9%	0.66%
POLK	7,445	9,850	32.3%	0.94%
POPE	25,795	39,101	51.6%	1.40%
PRAIRIE	2,004	2,423	20.9%	0.63%
PULASKI	269,874	392,854	45.6%	1.26%
RANDOLPH	5,576	7,411	32.9%	0.95%
ST. FRANCIS	8,418	11,556	37.3%	1.06%
SALINE	23,732	40,188	69.3%	1.77%
SCOTT	3,344	4,265	27.5%	0.81%
SEARCY	2,154	2,707	25.7%	0.76%
SEBASTIAN	73,265	104,757	43.0%	1.20%
SEVIER	6,963	7,581	8.9%	0.28%
SHARP	4,402	5,792	31.6%	0.92%
STONE	3,389	4,536	33.8%	0.98%
UNION	20,279	23,831	17.5%	0.54%
VAN BUREN	4,900	7,231	47.6%	1.31%
WASHINGTON	98,656	138,490	40.4%	1.14%
WHITE	28,700	42,180	47.0%	1.29%
WOODRUFF	2,302	2,703	17.4%	0.54%
YELL	7,017	4,559	-35.0%	-1.43%