



# IMAGINE CENTRAL ARKANSAS

**Plan Smart. Live Smart.**

## STATE OF THE REGION: LAND USE WORKING PAPER #6

*September 2012*



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# STATE OF THE REGION: LAND USE AND TRANSPORTATION

*This is the sixth in the series of white papers that will serve as background information for Imagine Central Arkansas. This paper addresses land use in central Arkansas, specifically its relationship with transportation as a major factor in mobility throughout the region.*

## The Transportation and Land Use Relationship

Transportation and land use are very closely linked, such that transportation decisions have a direct influence on land use patterns and land use decisions have a direct influence on travel behavior. For example, central Arkansas, like most places across the country, saw an increase in road-building (including the interstate highway system) and automobile ownership levels beginning after World War II.

These new transportation decisions resulted in a new pattern of land use, including lower-density single family subdivisions, strip-style retail and office parks spreading further and further from traditional cities and into suburban and rural locations. In turn, central Arkansas' resulting land use pattern is one in which most trips must be made via private automobile and many daily destinations (work, school, etc.) are far away.

The transportation and land use relationship can be described in a number of different ways, but two of the most powerful are density and mixed-use.

## Density

Density, which is typically defined in terms of dwelling units (or jobs) per acre, influences transportation by determining the how proximal homes and/or jobs are to each other. How dense a place becomes can determine whether walking and cycling are possible and how far we travel via automobile.

Much of central Arkansas has developed at relatively lower densities. Over half the region's homes are located in places in where the gross density is less

than three dwelling units per acre, which roughly translates into lot sizes from one quarter-acre to several acres.

## Highlights

- Transportation and land use are closely linked to each other.
- Much of central Arkansas has developed at a relatively low density and in dispersed development patterns.
- Over half the region's homes are located in places where the gross density is less than three dwelling units per acre (quarter-acre to several acre lots).
- Pulaski County is the most compact, while the other counties have seen growth at lower densities.
- Lower densities is one reason why so few central Arkansas residents have access to fixed-route transit (about one in four).
- Only about one in five households are within walking distance to retail.
- The average distance between a home and the nearest employment center is 7.5 miles. The average distance to all employment centers is almost 17 miles.
- Imagine Central Arkansas represents a significant opportunity to take a focused look at the transportation and land use relationship.

Figure 1. Land Use – Residential Density

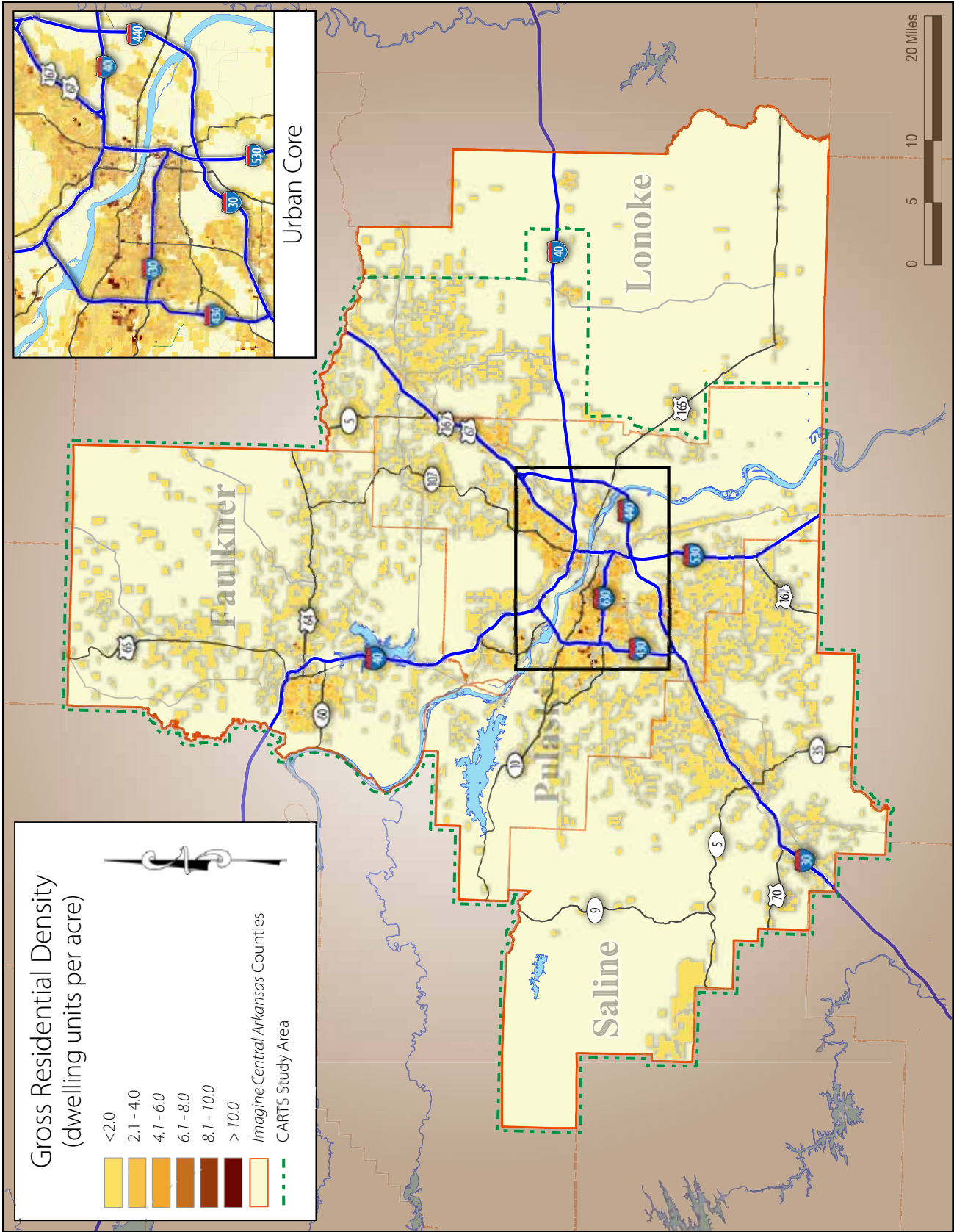
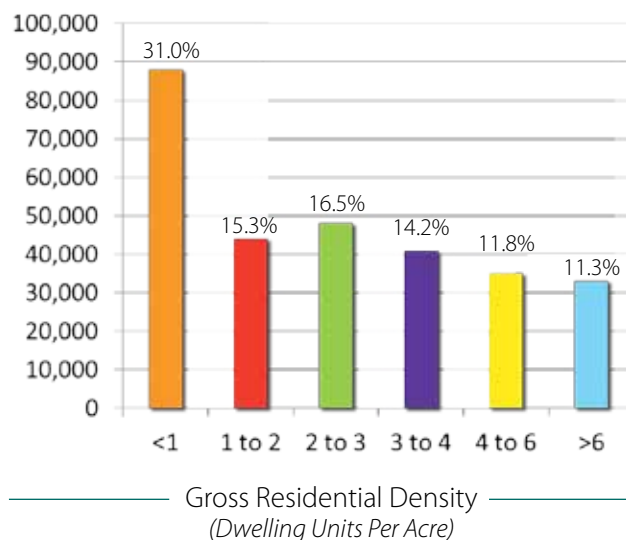


Table 1. Number of Homes Within Walking and Biking Distance of a Destination (Shopping, School, Job, Transit Station) at Varying Densities

Gross Density	Homes within Walking Distance (1/4 mi)	Homes within Biking Distance (2 mi)
1 du/ac	130	8,040
2 du/ac	250	16,080
3 du/ac	380	24,120
4 du/ac	500	32,150
6 du/ac	750	48,230

Density determines how many homes are within walking or cycling distance of a destination, whether it's shopping, a school, workplace or transit stop.

Figure 2. Dwelling Units in Central Arkansas by Density



Pulaski County tends to be the most dense because it includes the region's older, more compact neighborhoods. The outlying counties, including Faulkner, Lonoke and Saline have experienced much of their growth over the last few decades and are characterized by less compact developments ranging from quarter-acre lot subdivisions to large-lot (greater than one acre) and rural developments. Lower densities is one reason why only about one in four homes is within walking distance to a CATA bus route.

## Mixed Use

Mixed-use refers to the locations of different types of land uses, such as homes (origins) and jobs, shopping, services and schools (destinations) relative to each other. In combination with density, the degree to which complementary uses are mixed can influence travel behavior and patterns.

### Development Patterns and Distance in Central Arkansas

**21%**

Number of homes within walking distance (1/4 mile) to retail.

**7.5 miles**

Average distance between a home and the nearest employment center.

**16.7 miles**

Average distance between a home and all employment centers.

Source: Derived from data provided by Metroplan estimates.

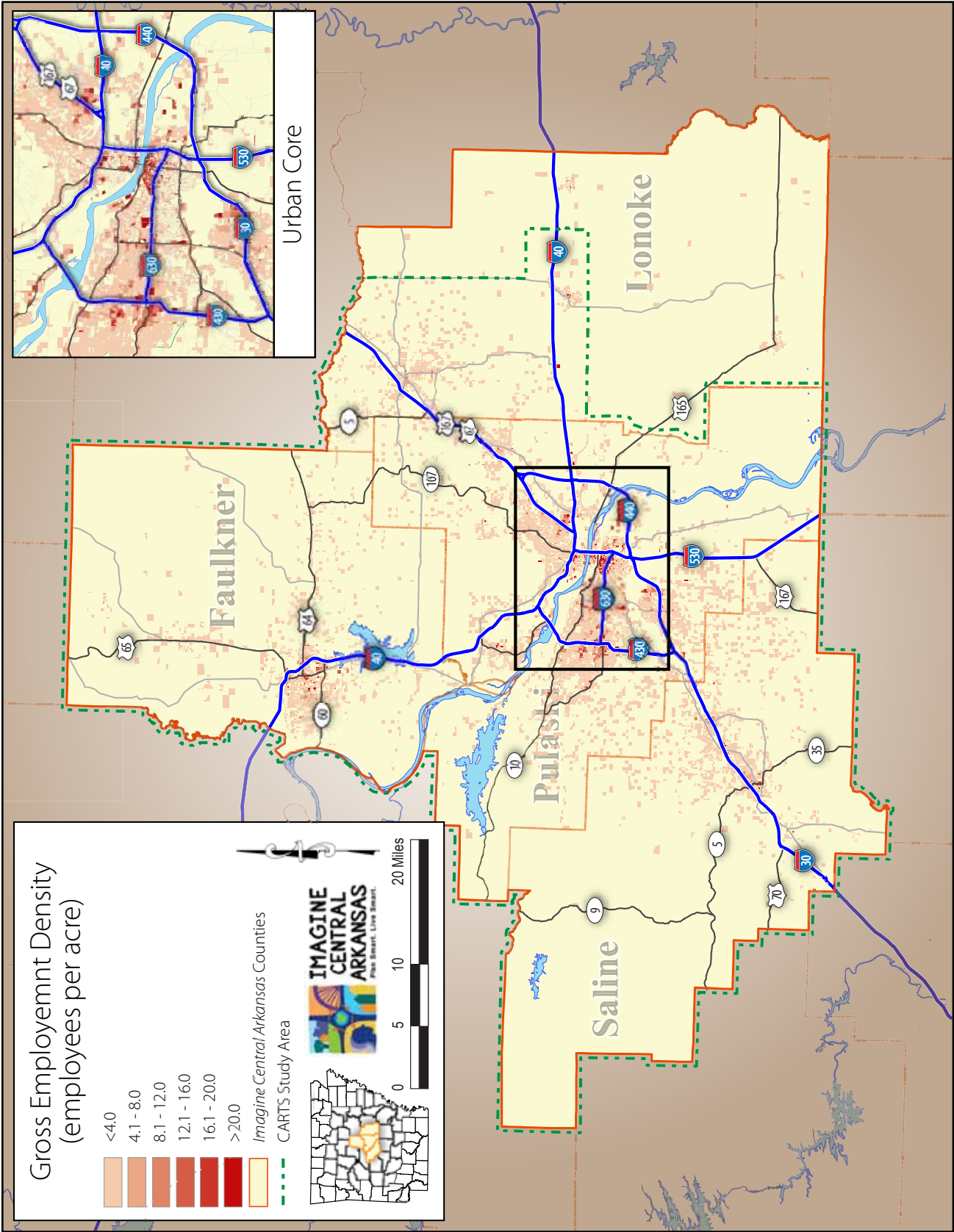
For example, approximately 21 percent of homes in central Arkansas are within one-quarter mile of retail destinations. This means that, at most, only about one in five households across the region could comfortably walk to shopping/dining/entertainment if they wanted to (assuming safe and adequate pedestrian facilities are in place).

At a regional scale, home locations tend to be dispersed relative to employment. The average home in central Arkansas is roughly 7.5 miles from the nearest employment center (downtown Little

THE AVERAGE DISTANCE BETWEEN A HOME AND THE NEAREST EMPLOYMENT CENTER IS 7.5 MILES.

THE AVERAGE DISTANCE TO ALL EMPLOYMENT CENTERS IS ALMOST 17 MILES.

Figure 3. Land Use – Employment Density



Rock, UAMS/Medical District, Conway or Little Rock Air Force Base) and an average distance of almost 17 miles to all employment centers. This translates into a potentially lengthy automobile commute, while cycling would be challenge and walking very difficult if not impractical.

## Conclusion

The standard practice in the United States has been for transportation and land use decisions to be made without due consideration for their impacts on each other. The end result is that many of our places are not walkable or bikeable, transit is inconvenient or even unavailable and long car rides are necessary for many of our daily needs. Central Arkansas is not immune to this phenomenon. Like most regions across the US, dispersed development patterns and

a separation of uses have made walking, cycling and riding transit difficult or impossible for many in central Arkansas, and has strained our roadway infrastructure to the point that it cannot keep up with growth.

Imagine Central Arkansas represents a significant opportunity to take a focused look at the transportation and land use relationship in light of these issues. It is imperative that the process reflect a good understanding of this relationship in order to make well-informed decisions that achieve the region's vision for growth over the next several decades.

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IMAGINE CENTRAL ARKANSAS REPRESENTS A SIGNIFICANT OPPORTUNITY TO TAKE A FOCUSED LOOK AT THE TRANSPORTATION AND LAND USE RELATIONSHIP.

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