

JACTS

Socio-Economic Conditions

10-1

In order for MDOT to develop the computerized travel demand transportation model for the Jackson metropolitan area roadway network, an analysis of the current and projected land use and socio-economic conditions in the JACTS area was necessary to provide estimates of future traffic volumes and travel behavior. The estimates were presented in the form of projections that described the extent and location of growth likely to occur within the urban model study area boundary. As mentioned previously, the model's study area encompasses the entirety of Jackson County. These projections also help to predict potential travel problems which are important when considering priorities for facility improvements.

Data on population, number of dwelling units, and retail/non-retail employment has been projected to the year 2040 and distributed to the 491 Traffic Analysis Zones (TAZs) that comprise the travel demand model study area. TAZs are subdivisions of the study area which serve to represent the trip making characteristics of the defined area. As the name indicates, TAZs are established in a study area in order to obtain a meaningful representation of the traffic as it relates to the scope of the study. Figures 4-1a and 4-1b illustrate the traffic analysis zone maps for the City of Jackson urbanized area and the balance of Jackson County.

Land use is a major generator of travel; therefore, it is important to derive future patterns of land use prior to estimating future travel patterns. This process was accomplished by projecting future population, number of dwelling units, and retail/non-retail employment totals for each traffic zone. Growth assumptions were based on the traffic zones' potential for increased development, availability of vacant land, zoning and recent developments in the area that would encourage additional growth.

The population, dwelling units, and retail/non-retail employment projections were developed by MDOT and the JACTS staff for a 30-year time period, or up to the year 2040. The projections were based on U.S. Census information and forecasts developed for the Michigan Department of Transportation (MDOT) by the Regional Econometric Models, Incorporated (REMI) and local knowledge of expected development. Employment data was also obtained through a combination of the 2010 Michigan Employment Security Commission (MESCC) and two propriety companies (Claritas Business Point Data and Hoover). In addition, staff also sent memorandums and area-specific traffic analysis zone maps to local planners, city officials, township supervisors, and the Enterprise Group requesting their input and local knowledge in reviewing past and current trends within the study area to assist in formulating assumptions concerning countywide population growth and employment opportunities. The socio-economic projections were finalized by traffic zones; reviewed and approved by the JACTS committees; and, forwarded to MDOT for input into the traffic model for travel forecast to the year 2040.

Figure 10-1a
Traffic Analysis Zones (TAZ)

Jackson County

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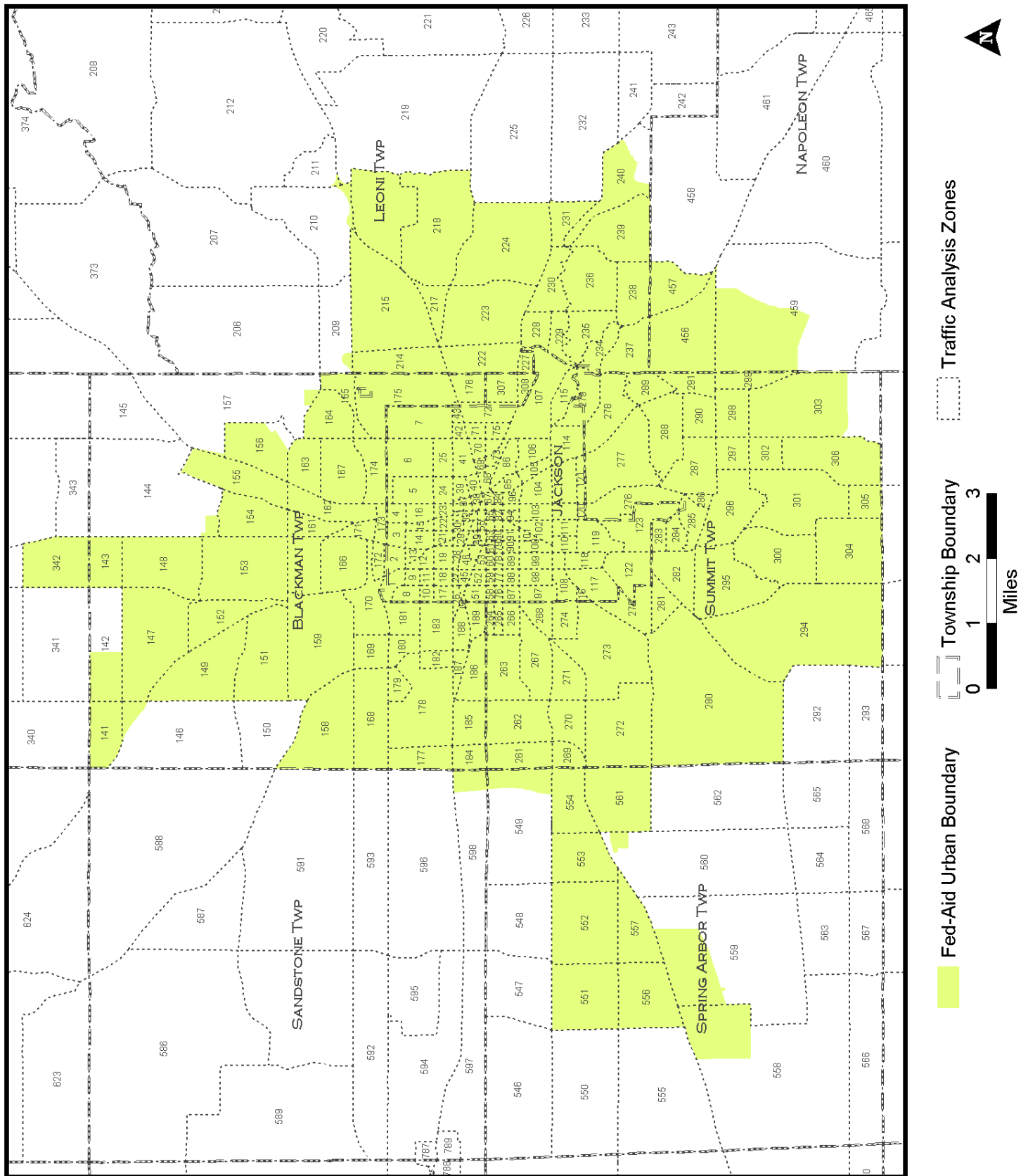


Figure 10-1b
Traffic Analysis Zones (TAZ)

Jackson Urbanized Area

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Chapter 10

Socio-Economic Conditions

JACTS

Population

The population projections formulated by the JACTS staff for the 2040 Long Range Transportation Plan were based on previous trends as depicted by the U.S. Census figures and on the Regional Economic Models Inc. (REMI) forecast data developed for the Michigan Department of Transportation. The REMI data forecast is based on the Cohort Survival methodology in association with economic development factors for a particular jurisdiction. Based on the decision to utilize the above-mentioned methodologies and assumptions, population projections were developed for all jurisdictions within the County and then broken down to the TAZ level.

Table 10-1
2010 & 2040 Population Estimates
By Local Unit of Government

Local Government	2010	2040	% Change
Blackman Township	24,012	24,249	1.0%
Columbia Township ^a	7,420	7,631	2.8%
Concord Township ^a	2,723	2,723	0.0%
Grass Lake Township ^a	5,684	6,039	6.2%
Hanover Township ^a	3,695	3,769	2.0%
Henrietta Township	4,705	4,875	3.6%
City of Jackson	33,508	29,744	-11.2%
Leoni Township	13,808	13,808	0.0%
Liberty Township	2,961	3,104	4.8%
Napoleon Township	6,776	6,848	1.1%
Norvell Township	2,963	2,934	-1.0%
Parma Township ^b	3,273	3,461	5.7%
Pulaski Township	2,075	2,016	-2.8%
Rives Township	4,683	4,683	0.0%
Sandstone Township	3,437	3,492	1.6%
Spring Arbor Township	8,267	8,474	2.5%
Springport Township ^a	2,159	2,045	-5.3%
Summit Township	22,572	22,832	1.2%
Tompkins Township	2,671	2,818	5.5%
Waterloo Township	2,856	2,759	-3.4%
Jackson County	160,248	158,304	-1.2%

^a Township population includes village residents

^b Parma Village residents included in the Parma Township Total

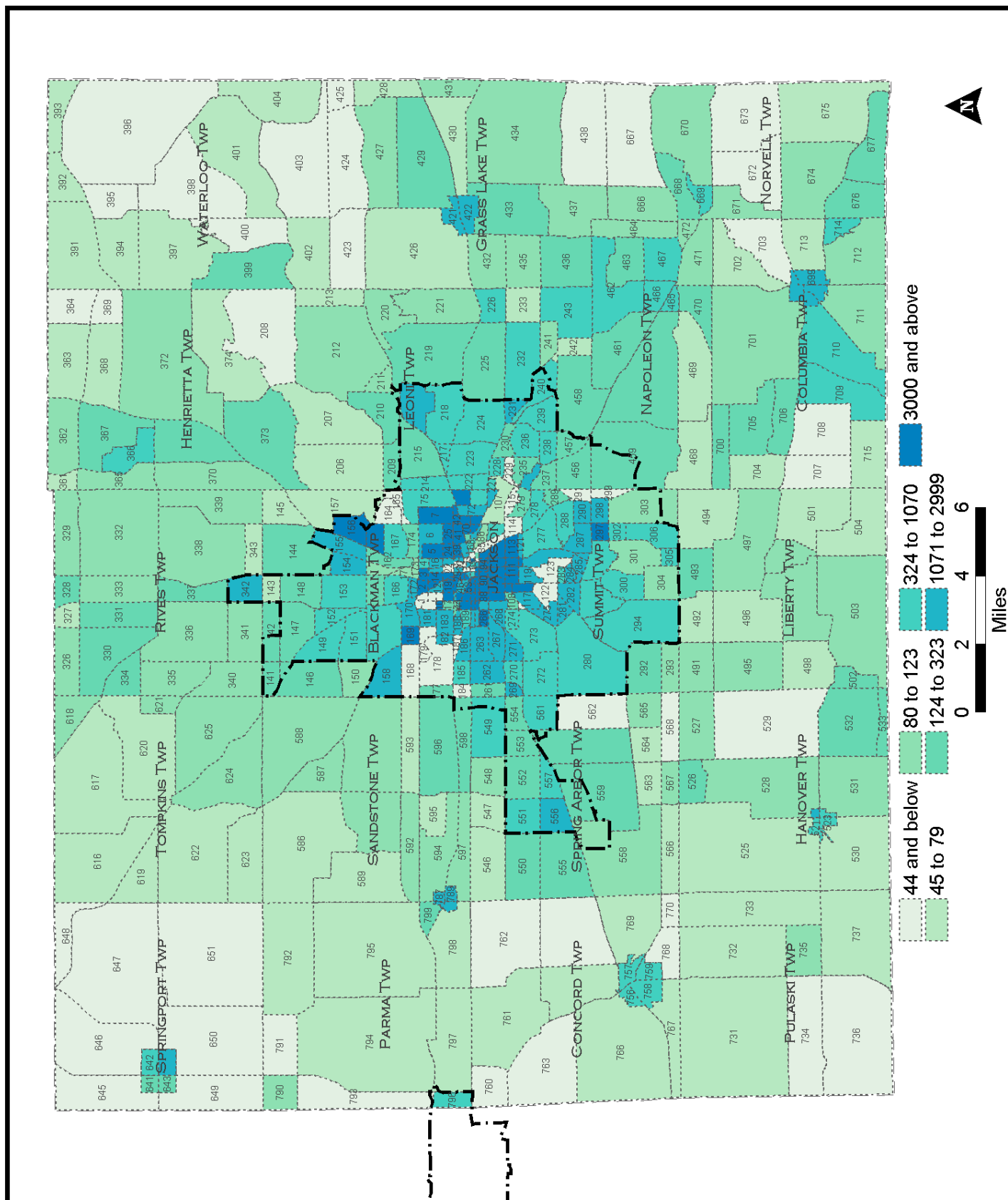


Figure 10-2a
Total Population Density (Per Sq. Mi.)

Jackson County

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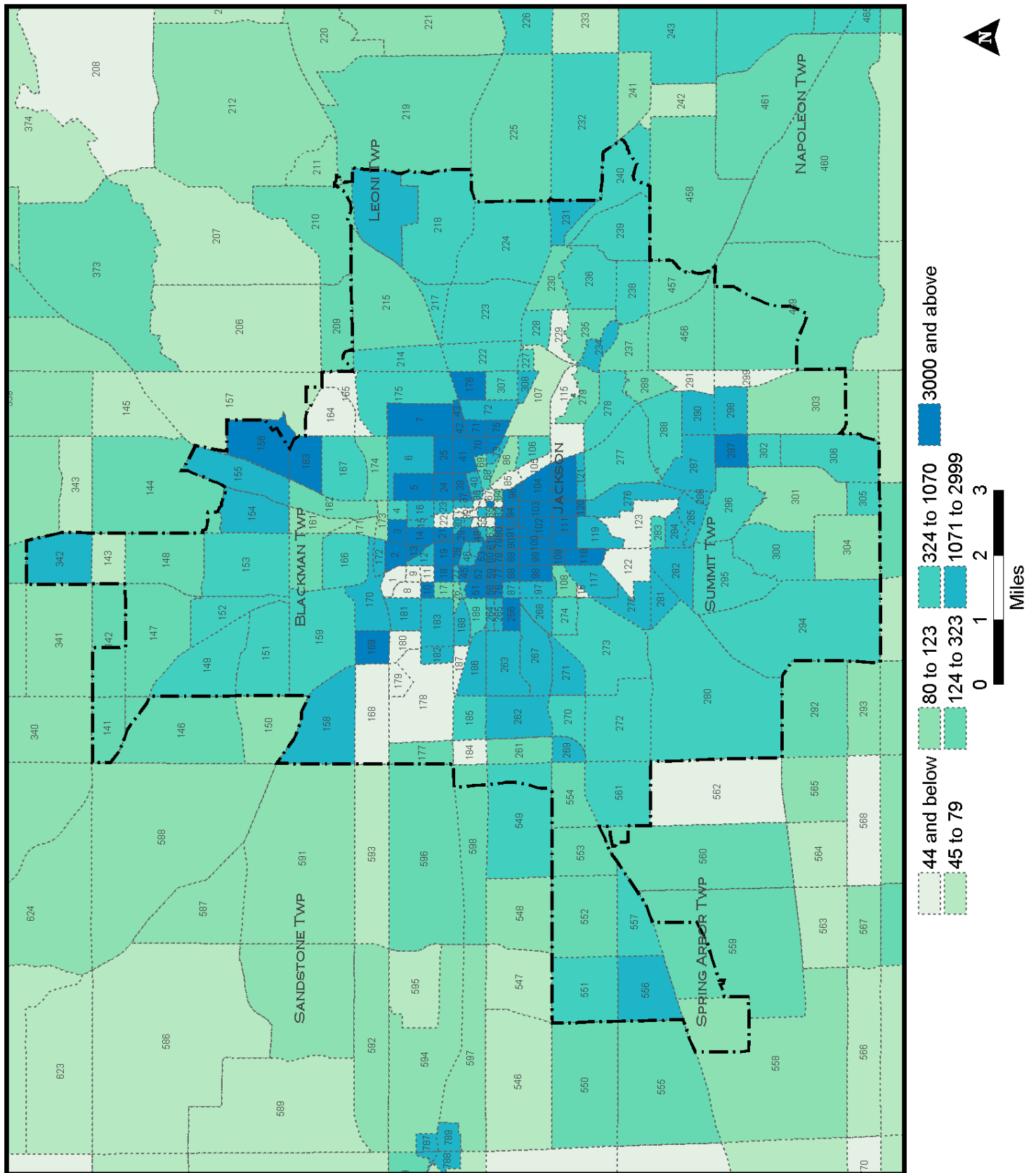


Figure 10-2b
Total Population Density (Per Sq. Mi.)

Jackson Urbanized Area

JACTS

The 2010 U. S. Census for Jackson County indicated a population of 160,248, an increase of 1.0% from the 2000 Census population of 158,422. The estimates provided by MDOT and REMI for the LRP base year of 2010 agreed with the U. S. Census population of 160,248. By the year 2040, the County's population is projected to be 158,304, a decrease of 1.21 percent (Tables 10-1 and 10-2).

Occupied Dwelling Units

Occupied dwelling unit projections, used in conjunction with population projections, assist in identifying areas or traffic analysis zones that may increase or decrease in population. Population increases in an area translate into relative increases in dwelling units. The amount of projected increase or decrease in the number of dwelling units is dependent upon the projected persons per dwelling unit ratio. This ratio is defined as the total number of persons residing in households divided by the total number of occupied dwelling units.

Table 10-2
Countywide Population Projections
2010-2040

Year	Population	Increase
2010	160,248	NA
2015	159,924	-0.2%
2020	159,600	-0.2%
2025	159,276	-0.2%
2030	158,952	-0.2%
2035	158,628	-0.2%
2040	158,304	-0.2%

Historically, the U.S. average household size has been steadily declining since 1970 when the persons per household was 3.14, falling to 2.76 in 1980, 2.63 persons in 1990, 2.59 in 2000, and 2.58 in 2010. The rate of decline is expected to continue over the next thirty years, but at a slower rate. In Jackson County, the average household size has reflected the national decline falling from 3.23 in 1970 to 2.62 in 1990, and continuing to decline to 2.55 persons per household in 2000 and 2.48 persons per household in 2010. The average household size in Jackson County is projected to continue to decline to approximately 2.43 persons per household by the year 2040. This continuing decline in household size can be attributed to fewer children per family, more single-parent families, and an increase in the number of people living alone. However, as long as household size continues to decline and the population increases, the number of households will increase and the demand for housing units in the County will increase.

In 2010, there were a total of 60,771 occupied dwelling units in the study area; and by the year 2040, there will be an estimated 61,238 occupied dwelling units, for an increase of less than 1%. The projected growth in occupied dwelling units was allocated to the TAZ level by examining area land use plans and discussions with township officials regarding current residential development trends within their respective jurisdictions. These trends indicate slight growth in the urban and outlying townships, with a negative (-11.0%) growth rate projected for City of Jackson. Anticipated growth is not

Chapter 10

Socio-Economic Conditions

JACTS

balanced among Jackson County townships because of the existence of land unable to support urban development (i.e. wetlands, state-owned property). Within the City of Jackson, the focus continues to be on the rehabilitation of transitional neighborhoods and the preservation of currently viable neighborhoods.

Table 10-3
Jackson County Totals
2010 & 2040

Year	Population		Occupied	Employment		
	Total	In Households	Dwellings	Retail	Non-Retail	Total
2010	160,248	150,576	60,771	14,919	56,541	71,460
2040	158,304	148,724	61,328	16,383	63,989	80,372

Employment

In 2010, the REMI model and MESC data indicated total employment for Jackson County to be approximately 71,460 persons, with a breakdown of 56,541 in non-retail (manufacturing, service, government-related) and 14,919 in retail/wholesale jobs.

In the year 2040, the total labor force for the study area is projected to increase by 12.0% to a total of 80,372 workers. Of this total, approximately 63,989 workers will be non-retail and 16,383 will be in retail employment. The projected study area employment by type was allocated to the 491 traffic zones based on assumptions of growth, stabilization and decline of employment for certain time periods.

Table 10-3 displays a summary of the 2010 and 2040 socio-economic data utilized by MDOT in developing the base year (2010) model calibration and future year (2040) trip generation for the travel forecast model described in Chapter 11.

It is important to remember that socio-economic forecasting is essentially a matter of judgment. Judgment is required in selecting the type of forecast to be implemented; in determining the procedures for making the forecast; and, the process used in reviewing the effects of the factors that induce changes in population and employment. The establishment of a large new industry or the loss of a similar size industry can lead to considerable impact on an area's development.

Although socio-economic projections can be a helpful tool in planning for an area's future growth and development, it is important to note that the projections can be modified as time progresses to reflect actual development impacts as they occur in the Jackson planning area. The projections used in the development of the Jackson 2040 LRTP will be re-evaluated periodically in order to consider changes in the population that would affect future forecasts.

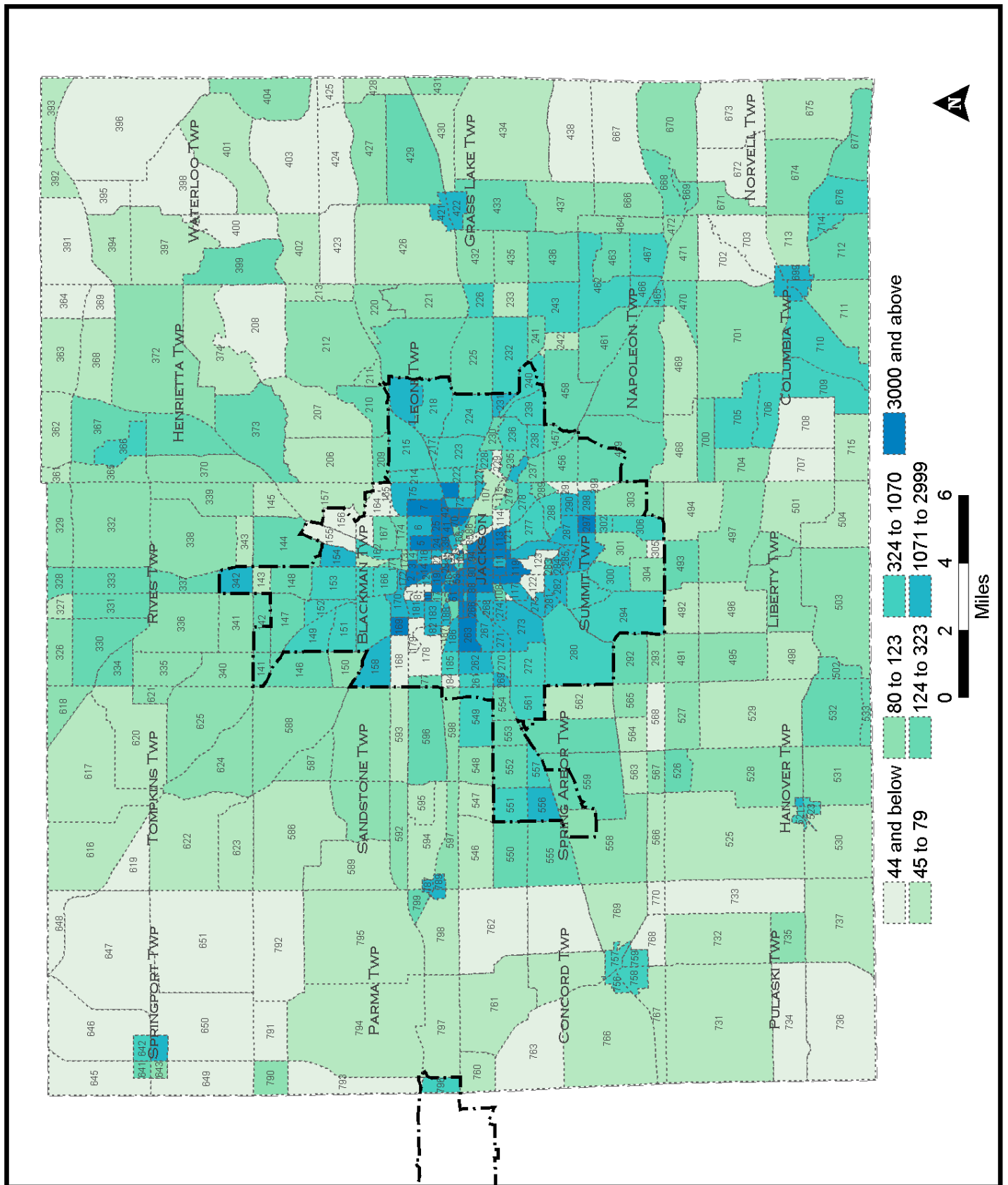


Figure 10-3a
Occupied Housing Unit Density (Per Sq. Mi.)

Jackson County

JACTS

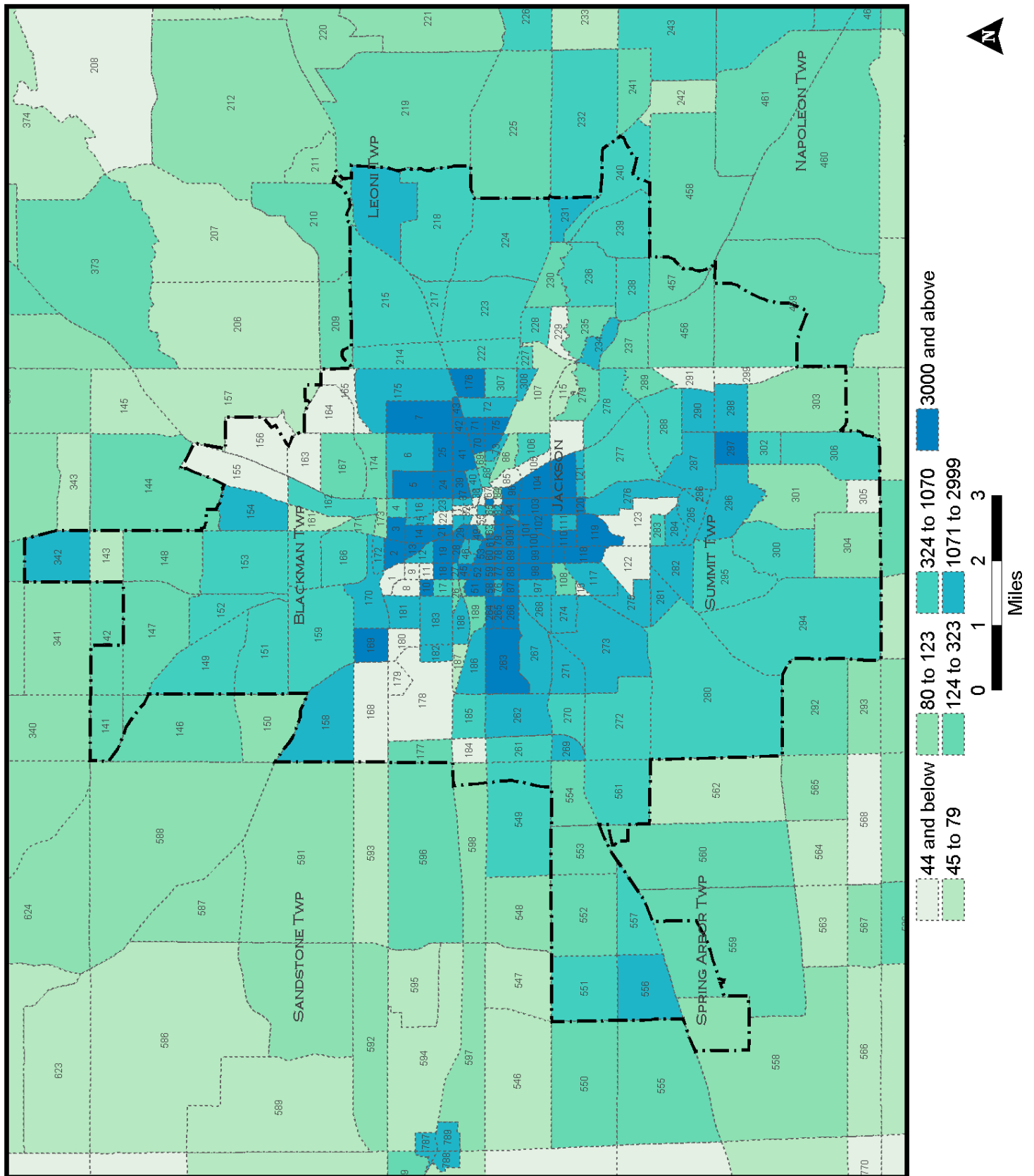


Figure 10-3b
Occupied Housing Unit Density (Per Sq. Mi.)

Jackson Urbanized Area

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