Chapter 7
Socio-Economic Conditions

For MDOT to develop the Travel Demand Forecast Model (the model) for the Jackson MPO roadway network, an analysis of the 2014 and 2045 projected land use and socio-economic conditions in the area was used to estimate future traffic volumes and travel behavior. The estimates were presented in the form of projections that describe the extent and location of growth likely to occur within Jackson County. The projections also help to predict potential travel problems which are important when considering priorities for transportation facility improvements.
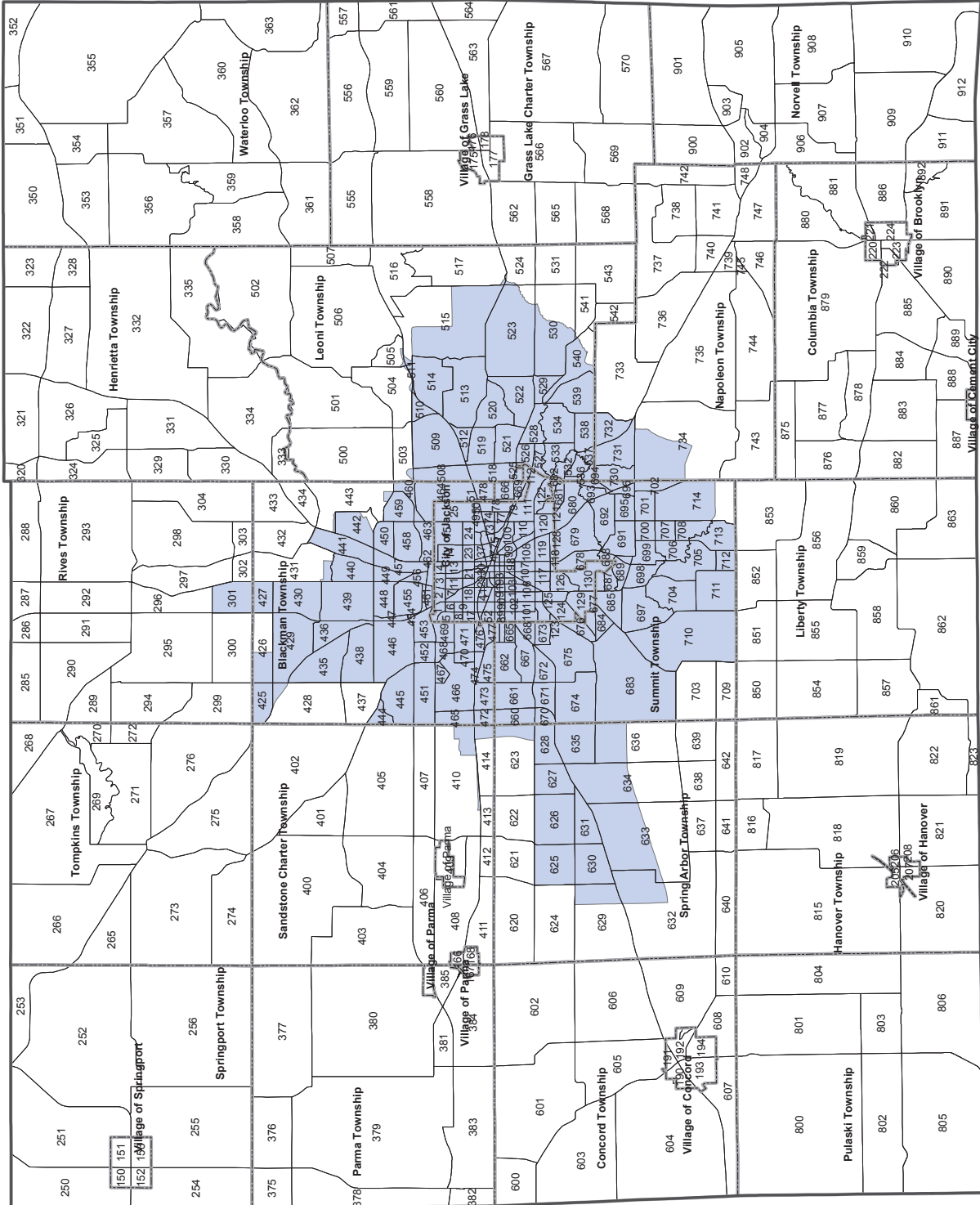
Data on population, number of occupied housing units, and retail/non-retail employment have been projected to the year 2045 and distributed to the 534 Traffic Analysis Zones (TAZs) that comprise the model area. TAZs are groups of the area generally based on the localized road network, and act as a simplification of origin and destination points within the community. TAZs are different in each community, and change in size over time. TAZs are established to obtain a meaningful representation of traffic behavior.

Maps of the TAZ's for Jackson are on the following pages.

Land use is a major influence on travel patterns. Estimating future travel patterns was done by projecting future population, the number of occupied housing units, and retail/non-retail employment totals for each TAZ. Growth assumptions were based on the TAZ's potential for increased development, availability of vacant land, current zoning regulations, and recent developments in the area that would encourage additional growth. Socio-economic information, including future year growth factors by TAZ, was provided to each governmental jurisdiction for comment and review.

The population, occupied housing units, and retail/non-retail employment projections were developed by MDOT and the Region 2 Planning Commission staff up to the year 2045. Information from the 2010 Census and the 2014 American Community Survey (ACS) 5-Year Estimate to develop the Regional Econometric Models, Incorporated, or REMI model. Memorandums, spreadsheets, and area-specific TAZ maps of the socio-economic data by analysis year, were provided to members of the JACTS Technical and Policy committees, local planners, city and county officials, township supervisors, and the Enterprise Group for their input in reviewing local trends. The socio-economic projections were applied to each TAZ, reviewed and approved by the JACTS Technical and Policy committees, and included into the model to develop the future year travel patterns.

Figure 7-1 Traffic Analysis Zones - Jackson County Map

Traffic Analysis Zones (TAZs)
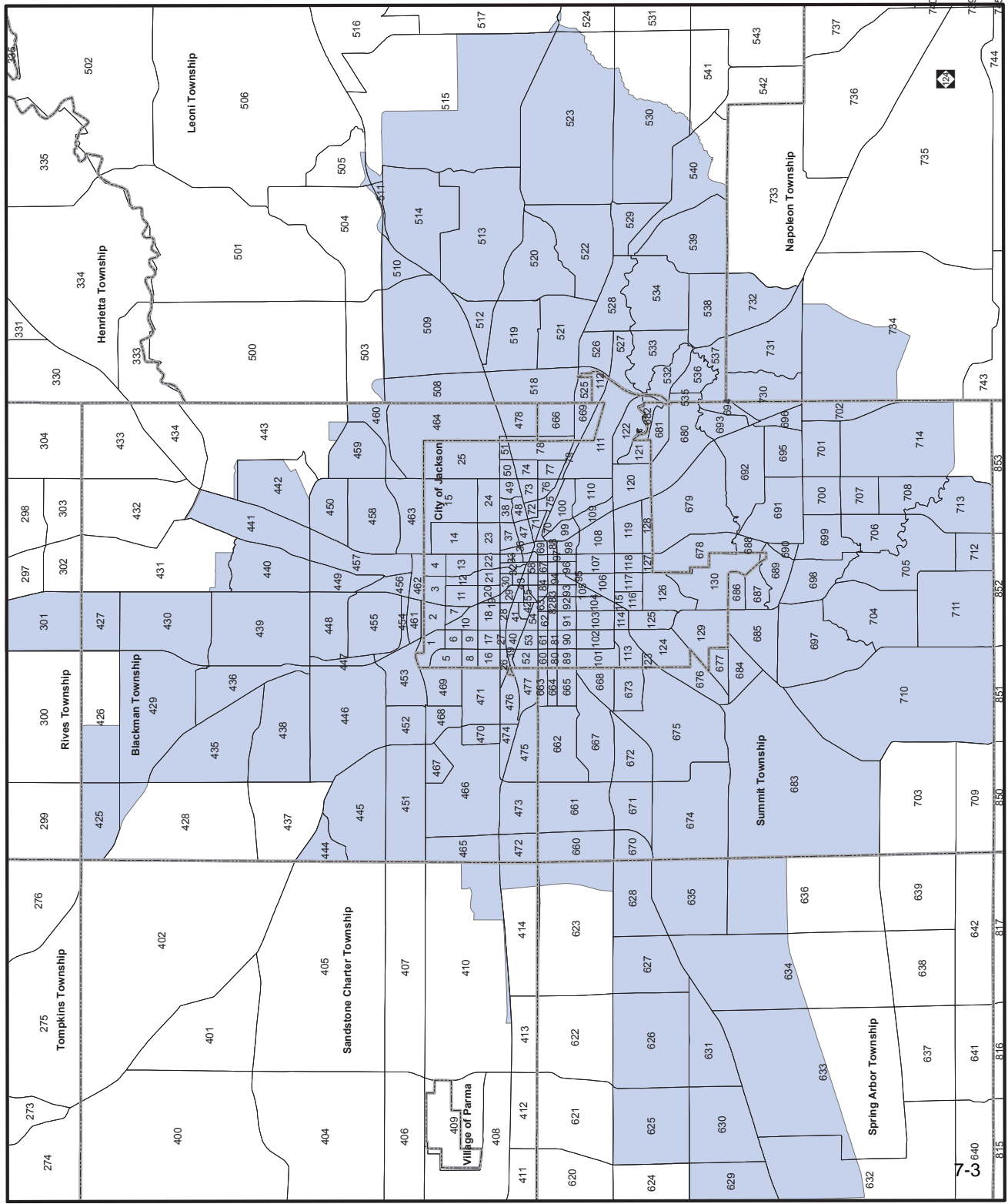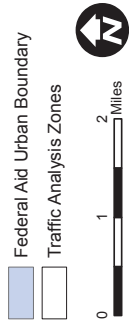
Federal Aid Urban Boundary
Traffic Analysis Zones

0   2.25   4.5
Miles

N

Region2
Planning Commission
Serving Hillsdale, Jackson and Lenawee Counties
Jackson Area Comprehensive Transportation Study

Traffic Analysis Zones (TAZs)

Figure 7-2 Traffic Analysis Zones - City of Jackson & Environs Map

Federal Aid Urban Boundary
Traffic Analysis Zones

0   1   2 Miles

N

Region2
Planning Commission
Serving Hillsdale, Jackson and Lenawee Counties
Jackson Area Comprehensive Transportation Study

Tompkins Township
Rives Township
Blackman Township
Sandstone Charter Township
Village of Parma
Spring Arbor Township
Summit Township
Leoni Township
Henrietta Township
Napoleon Township
City of Jackson

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Population

The population projections for the plan were based on previous trends as depicted by the 2010 Census, 2014 ACS figures, and on the REMI forecast data. The population projections were developed for all jurisdictions within the County and then broken down to the TAZ level.

Table 7-1 2014 & 2045 Population Estimates
By Local Unit of Government

Local Government	2014	2045	% Change
Blackman Township	23,646	24,647	4.2%
Columbia Township [a]	7,410	7,877	6.3%
Concord Township [a]	2,568	2,656	3.4%
Grass Lake Township [a]	5,650	6,255	10.7%
Hanover Township [a]	3,796	4,007	5.6%
Henrietta Township	4,705	5,066	7.7%
City of Jackson	33,316	30,509	-8.4%
Leoni Township	13,808	14,225	3.0%
Liberty Township	2,961	3,209	8.4%
Napoleon Township	6,776	7,094	4.7%
Norvell Township	2,963	3,019	1.9%
Parma Township [b]	3,271	3,522	7.7%
Pulaski Township	2,075	2,143	3.3%
Rives Township	4,683	4,803	2.6%
Sandstone Township	3,437	3,664	6.6%
Spring Arbor Township	8,267	8,665	4.8%
Springport Township [a]	2,179	2,134	-2.1%
Summit Township	22,859	24,402	8.2%
Tompkins Township	2,671	2,800	4.8%
Waterloo Township	2,856	2,953	3.4%
Jackson County	**159,917**	**163,650**	**2.3%**

[a] Township population includes village residents
[b] Parma Village residents included in the Parma Township Total

The 5-year 2014 ACS data for Jackson County indicated a population of 159,917, a small decrease of 0.2% from the 2010 Census population total of 160,248. However, this is an increase from the 2000 Census population of 158,422. The estimates provided by MDOT and REMI for the plan base year of 2014 agreed with the ACS population estimates for 2014. By the year 2045, the County's population is projected to be 163,650, an increase of 2.3%.

Occupied Housing Units

Occupied housing unit projections and population projections are used to identify the TAZs where future increases or decreases in the population may potentially occur. Population increases in an area translate into relative increases in housing units. The ratio is defined as the total number of persons residing in occupied housing units within a TAZ divided by the total number of occupied housing units within the TAZ.

Table 7-2 2014 & 2045 Occupied Housing Units
By Local Unit of Government

Local Government	2014	2045	% Change
Blackman Township	7,950	8,788	10.5%
Columbia Township [a]	2,959	3,343	13.0%
Concord Township [a]	957	1,021	6.7%
Grass Lake Township [a]	2,180	2,570	17.9%
Hanover Township [a]	1,423	1,548	8.8%
Henrietta Township	1,801	2,041	13.3%
City of Jackson	12,833	13,020	1.5%
Leoni Township	5,681	6,065	6.8%
Liberty Township	1,159	1,343	15.9%
Napoleon Township	2,715	2,897	6.7%
Norvell Township	1,230	1,313	6.8%
Parma Township [b]	1,203	1,310	8.9%
Pulaski Township	762	805	5.6%
Rives Township	1,666	1,777	6.7%
Sandstone Township	1,259	1,390	10.4%
Spring Arbor Township	2,646	2,891	9.3%
Springport Township [a]	847	887	4.7%
Summit Township	9,069	9,714	7.1%
Tompkins Township	1,074	1,257	17.1%
Waterloo Township	1,130	1,190	5.3%
Jackson County	**60,544**	**65,170**	**7.6%**

[a] Township population includes village residents
[b] Parma Village residents included in the Parma Township Total

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 2.54 in 2014. The rate of decline is expected to continue over the next 30 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, 2.48 persons per household in 2010, and 2.31 in 2014. The average household size in Jackson County is projected to see a slight increase to approximately 2.39 persons per household by the year 2045. Michigan is expected to see an increase in employment over the next 20 years, returning to pre-2008 recession employment levels, which will encourage more people to remain or

move to Michigan. Jackson County is expected to see an increase in population as a result of the positive economic changes, creating a demand for housing.

The 2014 ACS 5-Year data estimates that there were 60,485 occupied housing units within the study area, which is slightly below the 2010 number of 60,771 occupied housing units. By the year 2045, there will be an estimated 65,170 occupied housing units, which is an increase of 7.8%. The projected growth in occupied housing units was allocated to the TAZs by examining local land use plans and discussions with city, village, and township officials regarding current residential development trends. The trends indicate moderate growth in the urban and outlying townships.

Employment

Based on proprietary employer-survey vendor data, and Michigan Employment Security Commission data, 2014 employment for Jackson County was approximately 68,996 people, with a breakdown of 58,622 in non-retail (manufacturing, service, government-related) and 10,374 in retail jobs.

Table 7-3 2014 & 2045 Employment Estimates
By Local Unit of Government

Local Government	Retail 2014	Retail 2045	% Change	Non-Retail 2014	Non-Retail 2045	% Change	Total 2014	Total 2045	% Change
Blackman Township	4,401	3,641	-17.3	12,267	12,281	0.1	16,668	15,922	-4.5
Columbia Township [a]	444	481	8.3	1,877	2,005	6.8	2,321	2,486	7.1
Concord Township [a]	52	45	-13.5	693	674	-2.7	745	719	-3.5
Grass Lake Township [a]	137	125	-8.8	1,533	1,554	1.4	1,670	1,679	0.5
Hanover Township [a]	31	26	-16.1	511	528	3.3	542	554	2.2
Henrietta Township	70	61	-12.9	404	403	-0.2	474	464	-2.1
City of Jackson	3,419	3,255	-4.8	24,210	28,332	17.0	27,629	31,587	14.3
Leoni Township	685	752	9.8	3,743	4,320	15.4	4,428	5,072	14.5
Liberty Township	43	44	2.3	231	279	20.8	274	323	17.9
Napoleon Township	71	67	-5.6	1,362	1,493	9.6	1,433	1,560	8.9
Norvell Township	5	4	-20	134	134	0	139	138	-0.7
Parma Township [b]	30	30	0	417	434	4.1	447	464	3.8
Pulaski Township	5	5	0	78	69	-11.6	83	74	-10.8
Rives Township	24	23	-4.2	343	364	6.1	367	387	5.5
Sandstone Township	14	14	0	1,606	1,600	-0.4	1,620	1,614	-0.4
Spring Arbor Township	143	125	-12.6	1,743	1,866	7.1	1,886	1,991	5.6
Springport Township [a]	22	18	-18.2	316	289	-8.5	338	307	-9.2
Summit Township	703	642	-8.7	6,764	7,344	8.6	7,467	7,986	7.0
Tompkins Township	14	12	-14.3	76	72	-5.3	90	84	-6.7
Waterloo Township	61	56	-8.2	314	334	6.4	375	390	4.0
Jackson County	**10,374**	**9,426**	**-9.1**	**58,622**	**64,375**	**9.8**	**68,996**	**73,801**	**7.0**

[a] Township population includes village residents
[b] Parma Village residents included in the Parma Township

In the year 2045, the total labor force for the study area is projected to increase by 7.0% to a total of 73,801 workers with 64,375 workers in non-retail and 9,426 in retail jobs. Retail jobs are expected to decrease over the next 30 years by 9.1%, or 948 jobs. Other non-retail employment sectors are expected to see an increase of 9.8%, or 5,753 additional jobs. The study area employment by type was applied to the 534 TAZs based on assumptions of growth, stabilization, and decline of employment for certain time periods and based on current trends for each employment sector.

Socio-economic forecasting is the mixing of objective and subjective data. Judgment is required in selecting the type of forecast to be implemented, determining the procedures for making the forecast, and developing a process for reviewing population and employment factors. The influx or loss of a new employer or industry can have a considerable impact on an area's development.

Although socio-economic projections can be a helpful tool in planning for future growth and development, projections can be modified as time progresses to reflect actual development impacts. The projections used in the development of the Jackson 2045 LRTP will be re-evaluated periodically to address changes in the population.

Table 7-4 2014 & 2045 Jackson County Totals

| Year | Population | | Occupied | Employment | | |
	Total	In Households	Housing Units	Retail	Non-Retail	Total
2014	159,917	152,193	60,544	10,374	58,622	68,996
2045	163,650	155,703	65,170	9,426	64,375	73,801