

Section **4.0**

POPULATION ANALYSIS

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INTRODUCTION

The characteristics of a community's population are among the key ingredients given consideration in the long-range planning process. Historical and current population trends have several useful applications. They are especially relevant in identifying the need for various types of community facilities. Future land use and public utility demands are also related to population growth trends and demographic characteristics. Conclusions and the potential planning policy implications of this data are also noted.

The following items are important to a fuller understanding of the characteristics of Riley's total population. These individual topics include the following:

- Population change over time
- Age characteristics
- Household characteristics
- Population projections

The most current available population data for Riley Township is employed in the examination of each of the topics. Wherever possible, comparable data for St. Clair County is also included. Information for the County is provided for the purpose of understanding the relationship of the Township to the larger geographical areas of which it is a part within Southeast Michigan.

POPULATION CHANGE

Population change for Riley Township and its neighboring communities over the 40-year period from 1970 to 2015 is shown in Table 9. During this period, the Township's population increased by 1,681 persons, from 1,536 in 1970 to 3,217 in 2015. Of the eight communities that share a common boundary with Riley Township, most, including Riley, experienced their greatest growth in population during the 1990's. However, since the 2000's all, except Wales and Memphis, experienced a population loss.

The rate of population growth experienced by Riley Township for each of the past four decades is shown in Table 10. Riley displayed population increases over each of these intervals, with the exception of the past five years. The strongest growth occurred over the 1990-2000 decade when the Township grew by 892 persons, or 41.4%.

TABLE 9: COMPARATIVE POPULATION GROWTH 1970-2015

Community	1970	1980	1990	2000	2010	2015
Riley Township	1,536	2,075	2,154	3,046	3,353	3,217
Columbus Township	1,937	3,097	3,235	4,615	4,070	3,698
Richmond Township	1,719	2,453	2,528	3,416	3,665	3,540
St. Clair Township	3,091	3,965	4,614	6,423	6,817	6,707
Memphis	1,121	1,174	1,221	1,129	1,183	1,195
Berlin Township	1,595	2,160	2,399	3,162	3,285	3,094
Wales Township	1,970	2,368	2,294	2,986	3,248	3,280
Emmett Township	1,000	1,413	1,530	2,255	2,385	2,143
Emmett Village	297	285	289	251	269	254
St. Clair County	119,280	138,802	145,607	164,235	163,040	160,025

TABLE 10: COMPARATIVE POPULATION CHANGE (% Change) 1980-2015

Community	1980-1990		1990-2000		2000-2010		2010-2015	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Riley Township	79	3.8%	892	41.4%	307	10.1%	-136	-4.1%
Columbus Township	138	4.5%	1,380	42.7%	-545	-11.8%	-372	-9.1%
Richmond Township	75	3.1%	888	35.1%	249	7.3%	-125	-3.4%
St. Clair Township	649	16.4%	1,809	39.2%	394	6.1%	-110	-1.6%
Memphis	47	4.0%	-92	-7.5%	54	4.8%	12	1.0%
Berlin Township	239	11.1%	763	31.8%	123	3.9%	-191	-5.8%
Wales Township	-74	-3.1%	692	30.2%	262	8.8%	32	1.0%
Emmett Township	117	8.3%	725	47.4%	130	5.8%	-242	-10.1%
Emmett Village	4	1.4%	-38	-13.1%	18	7.2%	-15	-5.6%
St. Clair County	6,805	4.9%	18,628	12.8%	-1,195	-0.7%	-3,015	-1.8%

AGE

Age characteristics are among the more important demographic variables. They are useful as an indicator of anticipated demand for various types of municipal services and programs, including parks, employment needs, job training, day-care, schools, and services to various other age groups, including the elderly. The Township's future land use needs are also related to its age configuration.

Median Age

The steady aging of this Nation's population was among the more important trends dimensioned by the 1980, 1990 and 2000 census. After reaching a high of 30.2 years in 1950, the median age for the Nation declined the following two decades to 29.5 years in 1960, and 28.3 years in 1970. These declines were largely a response to the high birth rates that occurred during the baby boom years following World War II. The aging of the baby boom children, during the 1980's and 1990's, partially explains the rise in median age revealed in the 2000 U.S. Census. Lower fertility rates and increasingly longer life spans have also contributed to the increase.

The continuing aging trend is clearly reflected in the median age figures noted in Table 11. Median age in Riley Township for 2000 was 35.1 compared to the County's 36.2. Continued increases are reflected in 2010 census data. Riley Township's median age rose 6.3 years to 41.4 in 2010. The Township's median age, however, remains slightly lower than the County figure of 41.5.

TABLE 11: MEDIAN AGE

Median Age			
Community	2000	2010	Change 2000-2010
Riley Township	35.1	41.4	6.3
St. Clair County	36.2	41.5	5.2

Population by Age Life Cycle

By reviewing the various age categories that make up Riley's population, it is possible to determine how various segments of the Township's population have changed over time and what impact these changes have had on the Township's growth.

A more meaningful picture of the Riley's population age distribution is possible when the individual age categories shown on the previous table are combined into a smaller number of groups, which more closely resemble identifiable stages of a normal human life cycle. Selected categories and the age intervals that they represent include: pre-school (0-4), school (5-17), family formation (18-44), middle-age (45-64), and seniors (65+). The percent of the Township's population that falls into each of these categories is shown in Table 12. Available information for 2010 and 2014 is shown. Similar data for St. Clair County is also provided for comparison purposes. Each of the life cycle stages reflected in Table 12 has important meaning for planning.

TABLE 12: AGE BY LIFE CYCLE CATEGORY

Riley Township		
Category	2010	2014
Pre-School (Under 5)	1.1%	4.8%
School Age (5-17)	21.5%	19.8%
Family Formation (18-44)	33.5%	28.4%
Middle Age (45-64)	32.0%	34.4%
Seniors (65+)	11.9%	12.5%
St. Clair County		
Pre-School (Under 5)	5.8%	5.5%
School Age (5-17)	18.2%	17.4%
Family Formation (18-44)	32.6%	31.1%
Middle Age (45-64)	28.2%	30.6%
Seniors (65+)	15.2%	15.6%

The pre-school and school-age categories, for example, offer useful indicators of future school enrollment trends and the adequacy of existing facilities to meet these needs. The percentage of the Township’s pre-school population has declined since 2010. In 2010, children under the age of five comprised just over 1% of the Township’s population and by 2014, this increased to almost 5%. In 2010, pre-school children accounted for 5.8% percent of the County’s population. The County’s percentage of pre-school children fell slightly to 5.4% in 2014. The Township’s school aged population decreased by 1.7% from 2010 to 2014.

The percentage of school-aged residents declined since 2010. In 2010, children between the ages of five and 17 accounted for slightly less than one-quarter of Riley Township’s total population. The Township’s population aged five to 44 has been steadily declining, whereas the population aged 45 and older has been steadily growing over the past couple of decades.

HOUSEHOLDS

HOUSEHOLD GROWTH TRENDS

The U.S. Census Bureau has two categories that it uses to describe living arrangements: households and families. A household is one person or a group of persons occupying a housing unit. The number of households and occupied housing units are, therefore, identical. Families, on the other hand, consist of two or more persons, related to each other, living in a household.

Household characteristics, in general, and the rate of new household growth have become increasingly important indicators of demographic change within a community. Changes in the number of households and their composition are recognized as a more valid measure of community growth and vitality than absolute changes in the number of persons. Several reasons account for this view.

At the local level, households generate property tax revenues regardless of how many people are living within the household. Households also generate a demand for durable goods, including cars and appliances, as well as energy (electricity, gas and telephone services) which serves to stimulate local and regional economic growth. Local governmental services are impacted by household growth trends, especially the need for public utilities (water and sewage disposal), police and fire services, and solid waste disposal, among others. The number of households also influences traffic levels and the need for future transportation system improvements.

For example, even though Michigan’s population shrunk by 0.16% between 2000 and 2015, over 42,000 new households were created during this period, for an increase of 1.12%.

Riley Township experienced a much higher rate of household growth over the past 15 years. Between 2000 and 2015, over 170 new households were formed in the Township, for an increase exceeding 16%. St. Clair County’s households grew by only 3.4% over the same period.

TABLE 13: HOUSEHOLD GROWTH TRENDS

Community	2000	2010	2000-2010 Change		2015	2000-2015 Change	
			Number	Percent		Number	Percent
Riley Township	3,046	3,353	307	10.08%	3,217	171	5.61%
St. Clair County	164,235	163,040	-1,195	-0.73%	160,025	-4,210	-2.56%

Household Size

Accompanying these increases in household growth was a decline in the size of the average household. At the state level, household size has declined steadily since 1980, when it stood at a level of 2.84 persons per household. By 2000, it had declined to 2.56 persons per household and to 2.52 persons in 2010.

Consistent with broader national and regional trends, average household size in Riley Township declined over the past two decades. In 1980, the size of the average household was 3.71 persons. This declined to 2.97 persons in 2000, and again to 2.73 persons in 2015. Similar declines are observed for St. Clair County and Michigan.

Several factors are responsible for this decline, including birth rate patterns, the distribution of the population on the age spectrum, and life style changes. The first of these factors is referred to as the baby-boom echo. America experienced a well documented population growth period following the Second World War, commonly known as the baby-boom. Children born during this period have reached the child-bearing years and are starting their own families, creating an echo of the earlier baby-boom. This baby-boom echo is not producing the same number of persons that occurred earlier due to significant declines in the birthrate. Women today are having fewer children than their mothers did. Fewer children mean smaller families and reduced household sizes.

Population distribution patterns also impact household size declines. The aging of the baby-boom generation has begun to increase the proportion of those persons that are no longer considered to be likely candidates for parenthood.

Finally, the increasing number of single-person households has contributed to this trend. Improved medical care has resulted in an increasing number of persons over the age of 65, many of whom are widows or widowers creating single-person households. Young persons have also shown a tendency to marry later and delay having children until later in their lives. Another consequence of this delay is a corresponding decision to have fewer children. Increases in the divorce rate has also increased the number of new households and contributed to the decline in their overall size.

TABLE 14: HOUSEHOLD SIZE

Community	Household Size		
	2000	2010	2015
Riley Township	2.97	2.81	2.73
St. Clair County	2.62	2.52	2.47
Michigan	2.56	2.53	2.52

POPULATION PROJECTIONS

Projections provide a basis for anticipating future land use and various community service demands. As noted in the previous discussion, the factor that will have the greatest influence on these demands is the anticipated number of new households. While there is no precise way of absolutely predicting the future, past trends offer a useful method of anticipating expected changes in the number of households and the number of residents.

Population projections can be determined by many varying methods. The three projections used in this Master Plan to forecast future population in Riley Township include the Incremental Increase Method, the Linear Growth Method, and using the estimates from the Southeast Michigan Council of Governments' (SEMCOG) 2040 Regional Forecast. Each projection is based on certain assumptions regarding previous trends being carried forward into the future. These methods and their results for Riley Township are summarized as follows:

Incremental Increase Method

In this method the increment in arithmetical increase is determined from population changes over the past decades and the average of that increment is added to the average increase. Applying this assumption yields the following projected population levels:

- 2020: 3,756
- 2030: 4,108
- 2040: 4,409

Linear Growth Method

This method forecasts population growth which is modeled by adding a fixed amount for each projected time period, based on a project equation. The Linear Growth Method assumes that population growth is growing at absolute equal increments per unit of time. It also assumes that growth will follow a similar pattern in future years. Applying this assumption yields the following population projections for Riley Township:

- 2020: 3,807
- 2030: 4,261
- 2040: 4,715

Southeast Michigan Council of Governments (SEMCOG) 2040 Regional Forecast

The Southeast Michigan Council of Governments (SEMCOG) develops a regional forecast for 233 local communities in Southeast Michigan every five years. SEMCOG's forecast provides a long-range and comprehensive view of future demographic and economic changes. It provides base data for updating the regional long-range transportation plan and other regional planning projects. Member communities use the data in planning for infrastructure and development needs. The SEMCOG projections for Riley Township used in this Master Plan are based on data from SEMCOG's 2040 Regional Forecast. For Riley Township, SEMCOG projects the following population estimates:

- 2020: 3,147
- 2030: 3,147
- 2040: 3,148

The amount of population growth that takes place within Riley Township depends on a variety of factors. These factors include the economy, lifestyle, commuting habits, housing availability, housing affordability, and other factors that influence quality of life. Many of these factors are beyond the township’s control and others may only be slightly influenced by actions of the community. Table 15 summarizes the population projections used in this Plan.

TABLE 15: POPULATION PROJECTION SUMMARY

Population Projections			
Community	2020	2030	2040
SEMCOG	3,147	3,147	3,148
Incremental Increase Method	3,756	4,108	4,409
Linear Growth Method	3,807	4,261	4,715
Average Projection	3,570	3,838	4,090

All three projection techniques anticipate continued population growth for Riley over the next 25 years. The forecasts only differ with respect to the amount of growth expected. SEMCOG is projecting the population to essentially remain constant from 2020 to 2040.

Averaging out the projections for each decade, the Township’s population is expected to climb to 3,570 by the year 2020 and to 4,090 by the year 2040.

