

Credit: Craig Schreiner

### 6.1 INTRODUCTION

Long-range planning requires projections of future conditions that affect plan design and implementation, but do not lie entirely within the scope of governmental activity. The land use component of the regional plan must seek to accommodate the future demand for land in the Region, which primarily depends on future population, household, and employment levels. The transportation component of the regional plan must seek to accommodate the future travel needs associated with the land use component. Therefore, future population, household, and employment level projections are critical to planning for future land use and transportation for the Region.

The Commission completed projections of population, households, and employment for the period from 2010 to 2050 following the major analysis of regional population and employment summarized in Chapter 2. ${ }^{39}$ These projections are intended to provide a basis for preparing VISION 2050 and for updating other elements of the comprehensive plan for the Region. Past trends, the results of the 2010 Census, and the most recent economic base data were considered in preparing the projections. The projections were prepared with the guidance of the Commission's Advisory Committee on Regional Population and Economic Forecasts. The Committee includes individuals from the public and private sectors with expertise in the area of socioeconomic projections and population and economic trends in the Region.

[^0]> Population, household, and employment projections provide a basis for preparing VISION 2050.

## The intermediategrowth scenario is considered the most likely to occur for the Region as a whole.

VISION 2050 recommendations altered the distribution of population, households, jobs, and urban land uses within the Region to better achieve the long-range vision.

This chapter presents the year 2050 projections and an overview of their underlying methodology and assumptions. The population and household projections are fully documented in SEWRPC Technical Report No. 11 (5th Edition), The Population of Southeastern Wisconsin. The employment projections are fully documented in SEWRPC Technical Report No. 10 (5th Edition), The Economy of Southeastern Wisconsin. These reports were prepared in tandem to ensure consistency between the Commission's longrange population, household, and employment projections.

As in previous projection efforts, the Commission has projected a range of future population, household, and employment levels-high, intermediate, and low-for the Region. This approach recognizes the uncertainty in any effort to predict future socioeconomic conditions. The Commission's Advisory Committee on Regional Population and Economic Forecasts considered the intermediate projection the most likely to occur for the Region as a whole. The high and low projections are intended to provide an indication of the range of population, household, and employment levels that could conceivably occur under significantly higher or lower, but nevertheless plausible, growth scenarios for the Region.

The intermediate projections were used as the basis for VISION 2050, indicating the approximate future population, household, and employment levels in the Region that the plan should be designed to accommodate. It should be noted, however, that the projections were refined at the county level during the planning process because recommendations were made that altered the distribution of population, households, jobs, and urban land use within the Region in order to better achieve the long-range vision for the Region.

This chapter also presents projections of future personal income levels for the Region through the year 2050. Income projections are needed for certain aspects of the land use-transportation planning process. For example, projected future income levels were considered in estimating future automobile availability for households in the Region, as is required for determining future needs for transportation facilities and services.

### 6.2 PROJECTION METHODOLOGY AND ASSUMPTIONS

This section provides an overview of the methodology and assumptions used to prepare the population, household, and employment projections for the year 2050. The projection methodology and assumptions are documented in detail in the aforementioned technical reports.

## Population Projections-Methodology and Assumptions

The population projections were developed using a cohort-component population projection model, with specific assumptions made regarding vital events that affect population levels, including births, deaths, and migration. ${ }^{40}$ In general, the intermediate projection envisions a modest increase in fertility rates, a modest improvement in survival rates, and a gradual, modest improvement in net migration for the Region. The same assumptions regarding future fertility rates and survival rates were used for the high-,

[^1]Figure 6.1
Historical and Projected Total Fertility Rate for the Region


Source: U.S. Bureau of the Census, Wisconsin Department of Health Services, and SEWRPC
intermediate-, and low-growth scenarios. The projections differ primarily in terms of assumed future migration.

Figure 6.1 shows that the Region's total fertility rate decreased dramatically between 1960 and 1980 and has been relatively stable since 1990. The fertility rate did increase somewhat between 1990 and 2000 and then decreased again between 2000 and 2010. The lower total fertility rate in 2010 can be traced in part to reduced births during the economic recession that began in late 2007. The total fertility rate for the Region is projected to rebound from the reduced rate of 2010 and then increase gradually over the projection period to about 2.1 births per childbearing-age female in 2050. The fertility rates of younger females under age 25 are projected to continue to decrease, while the fertility rates of females over age 30 are projected to increase. This is consistent with trends over the past two decades.

There has been a steady increase in survival rates in the Region, a trend that goes back many decades. The new population projections assume a continuation of this long-term trend. For the new projections, current survival rates by age and sex were projected forward based on an assumption that the age and sex specific survival rates for counties in the Region would improve at the same relative rate as projected for the State overall, under State population projections. Male life expectancy in the Region would increase by 5.6 years, from 76.4 years in 2010 to 82.0 years in 2050. Female life expectancy would increase by 4.9 years, from 81.3 years in 2010 to 86.2 years in 2050.

Figure 6.2
Historical and Projected Net Migration for the Region


Source: U.S. Bureau of the Census, Wisconsin Department of Health Services, and SEWRPC

The entire Baby Boomer population will have reached the age of 65 by the year 2030. The need for replacement workers may be expected to impact migration levels as the Baby Boomer population leaves the workforce.

Future migration levels for the Region will depend upon a number of factors including, among others, government immigration policies, the number of employment opportunities (jobs) within the Region, and the need for workers. With the aging of the regional population-in particular, the aging of the large Baby Boomer population, the oldest of whom are now entering retirement age-the future need for workers to accommodate economic growth in the Region is an especially important consideration. The entire Baby Boomer population (those born from 1946 through 1964) will have reached the age of 65 by the year 2030. The need for replacement workers may well be expected to have an impact on migration levels as the Baby Boomer population leaves the workforce.

The pattern of migration for the Region would change from one of modest net out-migration early in the projection period to one of modest net in-migration later in the projection period under the intermediate-growth scenario (see Figure 6.2). This assumes modest economic growth in the Region over the long term and the need for additional workers as Baby Boomers retire from the workforce. There would be relatively steady net migration of population into the Region over the entire projection period under the high-growth scenario. There would be significant net out-migration from the Region under the low-growth scenario.

## Household Projections-Methodology and Assumptions

Changes in the number and size of households in the Region will accompany the changes in the size of the resident population. The methodology for

Figure 6.3
Actual and Projected Household Size in the Region: 1950-2050


Source: U.S. Bureau of the Census and SEWRPC
projecting households involved projecting the population residing in households (as opposed to group quarters) ${ }^{41}$ and the average household size for each county in the Region. The projected average household size was applied to the projected household population by county and the projected number of households for 2050 was the result.

It was assumed that the relative shares of the population residing in households and group quarters by age group would remain about the same over the projection period under all three growth scenarios. It was also assumed that average household sizes would continue to decrease, although at a reduced rate. The same household sizes were assumed under the three growth scenarios. The projected average household size for the Region overall is shown in Figure 6.3.

## Employment Projections-Methodology and Assumptions

The Commission used a disaggregate approach to prepare employment projections for the year 2050, as it has done in past studies. This approach involves the consideration of employment in major industry groups-such as manufacturing, retail trade, service, and government-and the preparation of projections for each group. High, intermediate, and low projections were

[^2]
## The Region's population is projected to increase to 2,354,000 people by 2050 , which is a $17 \%$ increase over 2010.

developed for each major industry based on a consideration of historical trends, time series analyses, projections from other agencies, and various economic outlooks. The resulting total employment level for the Region was reviewed in light of the future labor force levels that could be expected under the Commission's population projections. The industry-by-industry employment projections were then adjusted as appropriate to provide general consistency between the total number of jobs and the projected population and labor force.

The Commission's employment projections are long-range projections intended to provide an indication of future trends in employment through 2050 needed as a basis for preparing VISION 2050. The projections do not reflect the fluctuation in employment levels that may be expected to occur as a result of periods of growth and decline in the economy typically associated with shorter-term business cycles because of the focus on long-range future trends.

### 6.3 POPULATION PROJECTIONS

Commission population projections for the year 2050 are shown in Table 6.1 and Figure 6.4. The Region's population is projected to increase from about 2.02 million people in 2010 to 2.58 million people in 2050 under the high-growth scenario, 2.35 million people under the intermediate-growth scenario, and 2.16 million people under the low-growth scenario. The balance of this section focuses on the intermediate population projection, which is intended to serve as a basis for preparing VISION 2050.

The Region's population would increase by about 334,000 people, or 17 percent, over the 40 -year projection period, from 2,020,000 people in 2010 to $2,354,000$ people in 2050, under the intermediate-growth scenario. Population growth would range between 40,000 and 51,000 people during each five-year period from 2010 to 2035 . Growth would range between 33,000 and 36,000 people during the three five-year periods between 2035 and 2050. While most of the population growth would result from natural increase, the level of natural increase is projected to decline significantly over the projection period. Although the number of births is expected to increase moderately over the projection period, the number of deaths occurring during the period is expected to increase substantially as a result of deaths occurring to the aging Baby Boomer population. This accounts for the projected decline in natural increase.

Each county in the Region would increase in population over the projection period under the intermediate-growth scenario. Kenosha County is projected to have the largest relative increase in population among the seven counties, in part because of its proximity to Northeastern Illinois. This influence is also expected to contribute to population growth in Walworth County. Population increases projected for the seven counties under the intermediate-growth scenario between 2010 and 2050 are as follows:

- Kenosha County: 71,600 people (43 percent increase)
- Milwaukee County: 28,900 people (3 percent increase)
- Ozaukee County: 22,700 people (26 percent increase)
- Racine County: 32,300 people (17 percent increase)

Table 6.1
Actual and Projected Population in the Region by County: 2010-2050

| Data Item | Kenosha County |  |  | Milwaukee County |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actual Population: 2010 | 166,400 |  |  | 947,800 |  |  |
| Percent of Region: 2010 | 8.2 |  |  | 46.9 |  |  |
| Projected Population: | High | Intermediate | Low | High | Intermediate | Low |
| 2015 | 180,100 | 174,600 | 170,700 | 961,200 | 952,600 | 938,400 |
| 2020 | 192,500 | 183,700 | 175,500 | 976,800 | 959,800 | 934,300 |
| 2025 | 205,600 | 193,300 | 182,700 | 991,600 | 966,500 | 930,000 |
| 2030 | 219,100 | 202,800 | 189,800 | 1,003,800 | 970,800 | 923,800 |
| 2035 | 232,500 | 212,000 | 197,200 | 1,013,100 | 972,600 | 920,000 |
| 2040 | 244,700 | 220,700 | 204,100 | 1,021,000 | 973,300 | 915,300 |
| 2045 | 255,900 | 229,200 | 210,900 | 1,029,100 | 974,300 | 910,900 |
| 2050 | 267,400 | 238,000 | 216,000 | 1,038,500 | 976,700 | 908,100 |
| Change: 2010-2050 |  |  |  |  |  |  |
| Population | 101,000 | 71,600 | 49,600 | 90,700 | 28,900 | -39,700 |
| Percent | 60.7 | 43.0 | 29.8 | 9.6 | 3.0 | -4.2 |
| Percent of Region: 2050 | 10.4 | 10.1 | 10.0 | 40.3 | 41.5 | 42.1 |
| Data Item | Ozaukee County |  |  | Racine County |  |  |
| Actual Population: 2010 | 86,400 |  |  | 195,400 |  |  |
| Percent of Region: 2010 | 4.3 |  |  | 9.7 |  |  |
| Projected Population: | High | Intermediate | Low | High | Intermediate | Low |
| 2015 | 90,500 | 88,600 | 87,700 | 203,800 | 198,000 | 194,900 |
| 2020 | 96,000 | 92,000 | 89,600 | 210,000 | 202,000 | 196,800 |
| 2025 | 100,700 | 95,600 | 91,700 | 217,300 | 207,300 | 199,500 |
| 2030 | 105,300 | 99,100 | 93,500 | 224,700 | 212,400 | 201,800 |
| 2035 | 109,500 | 102,200 | 95,200 | 231,400 | 217,000 | 203,600 |
| 2040 | 113,400 | 104,700 | 96,500 | 237,600 | 220,900 | 205,300 |
| 2045 | 116,900 | 106,800 | 97,800 | 244,000 | 224,400 | 206,500 |
| 2050 | 120,500 | 109,100 | 99,200 | 250,700 | 227,700 | 207,500 |
| Change: 2010-2050 |  |  |  |  |  |  |
| Population | 34,100 | 22,700 | 12,800 | 55,300 | 32,300 | 12,100 |
| Percent | 39.5 | 26.3 | 14.8 | 28.3 | 16.5 | 6.2 |
| Percent of Region: 2050 | 4.7 | 4.6 | 4.6 | 9.7 | 9.7 | 9.6 |
| Data Item | Walworth County |  |  | Washington County |  |  |
| Actual Population: 2010 | 102,2005.1 |  |  | 131,900 |  |  |
| Percent of Region: 2010 |  |  |  | 6.5 |  |  |
| Projected Population: | High | Intermediate | Low | High | Intermediate | Low |
| 2015 | 109,800 | 106,800 | 104,800 | 143,100 | 138,200 | 134,900 |
| 2020 | 116,900 | 111,900 | 108,000 | 151,600 | 144,600 | 137,600 |
| 2025 | 124,300 | 117,100 | 111,700 | 160,500 | 151,300 | 141,600 |
| 2030 | 131,400 | 122,100 | 115,300 | 169,700 | 158,000 | 146,900 |
| 2035 | 138,300 | 126,900 | 118,500 | 178,600 | 164,500 | 151,800 |
| 2040 | 145,300 | 131,500 | 121,300 | 187,200 | 170,300 | 156,100 |
| 2045 | 151,700 | 136,000 | 124,000 | 195,300 | 175,500 | 159,600 |
| 2050 | 158,300 | 140,600 | 126,800 | 203,400 | 180,500 | 162,800 |
| Change: 2010-2050 |  |  |  |  |  |  |
| Population | 56,100 | 38,400 | 24,600 | 71,500 | 48,600 | 30,900 |
| Percent | 54.9 | 37.6 | 24.1 | 54.2 | 36.8 | 23.4 |
| Percent of Region: 2050 | 6.1 | 6.0 | 5.9 | 7.9 | 7.7 | 7.5 |
| Data Item | Waukesha County |  |  | Region |  |  |
| Actual Population: 2010 | 389,900 |  |  | 2,020,000 |  |  |
| Percent of Region: 2010 | 19.3 |  |  | 100.0 |  |  |
| Projected Population: | High | Intermediate | Low | High | Intermediate | Low |
| 2015 | 411,400 | 401,900 | 395,600 | 2,099,900 | 2,060,800 | 2,027,000 |
| 2020 | 430,800 | 414,900 | 401,500 | 2,174,600 | 2,109,000 | 2,043,300 |
| 2025 | 451,700 | 428,700 | 409,300 | 2,251,600 | 2,159,700 | 2,066,400 |
| 2030 | 472,100 | 442,500 | 417,400 | 2,326,000 | 2,207,800 | 2,088,400 |
| 2035 | 491,300 | 454,600 | 424,600 | 2,394,800 | 2,249,800 | 2,110,800 |
| 2040 | 507,600 | 464,400 | 429,200 | 2,456,900 | 2,285,800 | 2,127,900 |
| 2045 | 522,700 | 472,600 | 434,200 | 2,515,700 | 2,318,700 | 2,143,900 |
| 2050 | 539,000 | 481,400 | 439,400 | 2,577,700 | 2,354,000 | 2,159,800 |
| Change: 2010-2050 |  |  |  |  |  |  |
| Population | 149,100 | 91,500 | 49,500 | 557,700 | 334,000 | 139,800 |
| Percent | 38.2 | 23.5 | 12.7 | 27.6 | 16.5 | 6.9 |
| Percent of Region: 2050 | 20.9 | 20.4 | 20.3 | 100.0 | 100.0 | 100.0 |

[^3]Figure 6.4
Actual and Projected Population in the Region by County: 1950-2050


Source: U.S. Bureau of the Census and SEWRPC

- Walworth County: 38,400 people ( 38 percent increase)
- Washington County: 48,600 people ( 37 percent increase)
- Waukesha County: 91,500 people (24 percent increase)

Table 6.2 and Figure 6.5 show that the projections anticipate continued change in the age composition of the regional population through 2050. The broad age groups $0-19$ years, $20-44$ years, and $45-64$ years are projected to be relatively stable, while people age 65 and over are projected to nearly double. People age 65 and over would comprise about 21 percent of the population in 2050, compared to about 13 percent in 2010. This pattern reflects the aging of the Baby Boomer population. The changing age composition of the population is expected to have a range of impacts, including the availability of labor force in the Region and an increased demand for a variety of housing types and sizes. County-level population projections by age and sex are presented for the intermediate-growth scenario in Technical Report No. 11.

In addition to changes in the overall size and age characteristics of the regional population, continued change in the racial/ethnic makeup of the regional population may be expected in the years ahead. Table 6.3 shows the actual racial/ethnic composition of the regional population in 2010 and the projected racial/ethnic composition of the regional population in 2050, based on a continuation of the pattern of change from 1980 to 2010.42 The minority share of the regional population would increase from 29 percent in 2010 to nearly 45 percent in 2050. A set of national population projections released by the Census Bureau in 2008 shows a similar nationwide trend. The minority share of the total national population is expected to increase from 36 percent in 2010 to 54 percent in 2050.

### 6.4 HOUSEHOLD PROJECTIONS

Commission household projections for the year 2050 are shown in Table 6.4 and Figure 6.6. The number of households in the Region is projected to increase from about 0.80 million households in 2010 to 1.06 million households in 2050 under the high-growth scenario, to 0.97 million households under the intermediate-growth scenario, and to 0.89 million households under the low-growth scenario. The balance of this section focuses on the intermediate household projection.

The number of households in the Region would increase by about 172,300 households, or 22 percent, from about 800,100 households in 2010 to 972,400 households in 2050, under the intermediate-growth scenario. This exceeds the projected relative increase in population under the intermediategrowth scenario ( 17 percent). The number of households in each county in the Region would also increase under the intermediate-growth scenario at a greater rate than population. Household increases projected for the seven counties under the intermediate-growth scenario between 2010 and 2050 are as follows:

- Kenosha County: 32,800 households (52 percent increase)
- Milwaukee County: 26,000 households (7 percent increase)

[^4]Table 6.2
Actual and Projected Population in the Region by Age: 2010-2050 (Intermediate Projection)

| Age Group | Year |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
| Under 5 | 133,503 | 132,574 | 137,216 | 140,037 | 141,943 | 142,431 | 142,100 | 142,690 | 145,429 |
| 5 to 9 | 137,010 | 132,098 | 131,865 | 137,117 | 140,359 | 142,726 | 143,716 | 143,856 | 144,897 |
| 10 to 14 | 140,118 | 139,101 | 134,433 | 134,243 | 139,642 | 143,073 | 145,761 | 147,090 | 147,460 |
| 15 to 19 | 144,926 | 140,458 | 139,757 | 135,145 | 134,923 | 140,421 | 143,954 | 146,775 | 148,232 |
| Subtotal 0 to 19 | 555,557 | 544,231 | 543,271 | 546,542 | 556,867 | 568,651 | 575,531 | 580,411 | 586,018 |
| 20 to 24 | 137,595 | 142,227 | 138,007 | 137,820 | 133,270 | 133,024 | 138,287 | 141,607 | 144,168 |
| 25 to 29 | 137,321 | 138,260 | 143,254 | 138,989 | 138,780 | 134,306 | 134,196 | 139,553 | 142,928 |
| 30 to 34 | 128,174 | 138,906 | 139,990 | 146,365 | 142,608 | 142,113 | 137,436 | 137,497 | 143,497 |
| 35 to 39 | 125,851 | 128,235 | 139,722 | 140,774 | 148,111 | 145,036 | 144,657 | 140,029 | 140,299 |
| 40 to 44 | 136,456 | 124,949 | 127,657 | 139,230 | 140,077 | 148,037 | 145,673 | 145,563 | 141,035 |
| Subtotal 20 to 44 | 665,397 | 672,577 | 688,630 | 703,178 | 702,846 | 702,516 | 700,249 | 704,249 | 711,927 |
| 45 to 49 | 153,577 | 134,804 | 123,656 | 126,410 | 137,859 | 138,682 | 147,039 | 145,233 | 145,348 |
| 50 to 54 | 153,402 | 150,324 | 132,208 | 121,400 | 124,185 | 135,491 | 136,465 | 145,038 | 143,651 |
| 55 to 59 | 132,272 | 146,515 | 144,347 | 127,247 | 116,965 | 119,745 | 130,741 | 131,976 | 140,680 |
| 60 to 64 | 105,758 | 123,487 | 137,658 | 136,328 | 120,342 | 110,726 | 113,519 | 124,149 | 125,665 |
| Subtotal 45 to 64 | 545,009 | 555,130 | 537,869 | 511,385 | 499,351 | 504,644 | 527,764 | 546,396 | 555,344 |
| 65 to 69 | 72,622 | 95,606 | 112,504 | 126,263 | 125,667 | 111,199 | 102,561 | 105,463 | 115,694 |
| 70 to 74 | 54,925 | 65,029 | 86,265 | 102,150 | 115,300 | 115,462 | 102,581 | 94,932 | 97,968 |
| 75 to 79 | 46,609 | 47,156 | 56,542 | 75,548 | 89,990 | 102,322 | 103,365 | 92,408 | 85,915 |
| 80 to 84 | 39,940 | 36,722 | 37,866 | 46,070 | 62,143 | 74,737 | 85,979 | 87,999 | 79,416 |
| 85 and Older | 39,911 | 44,344 | 46,058 | 48,601 | 55,664 | 70,229 | 87,736 | 106,837 | 121,758 |
| Subtotal 65 and Older | 254,007 | 288,857 | 339,235 | 398,632 | 448,764 | 473,949 | 482,222 | 487,639 | 500,751 |
| Total | 2,019,970 | 2,060,795 | 2,109,005 | 2,159,737 | 2,207,828 | 2,249,760 | 2,285,766 | 2,318,695 | 2,354,040 |

Note: Age groups that approximate the Baby Boomer generation (people born from 1946 through 1964) are shaded green.
Source: U.S. Bureau of the Census and SEWRPC

Figure 6.5
Actual and Projected Population in the Region by General Age Group (Intermediate Projection): 1950-2050


Source: U.S. Bureau of the Census and SEWRPC

Table 6.3
Racial/Ethnic Makeup of the Regional Population: Existing 2010 and Projected 2050 Based Upon an Extrapolation of Past Trends

| Race/Ethnicity | Percentage of Total Regional <br> Population: Actual 2010 | Percentage of Total Regional <br> Population: Projected 2050 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Non-Hispanic White Population | 71.1 | 55.5 |  |  |  |
| Minority Population:b |  |  |  |  |  |
| Non-Hispanic Black/African American | 14.3 | 19.1 |  |  |  |
| Non-Hispanic Other Race | 4.7 | 8.2 |  |  |  |
| Hispanic-Any Race | 9.9 | 17.2 |  |  |  |
| Pinority Subtotal |  |  |  | 28.9 | 44.5 |

${ }^{\text {a }}$ Assumes that the average annual numeric change in population for each group experienced between 1980 and 2010 would continue through 2050.
${ }^{\text {b }}$ The minority population includes people reported in the Census as being of Hispanic origin and/or reporting their race as Black or African American, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, some other race, or more than one race.

Source: U.S. Bureau of the Census and SEWRPC

Table 6.4
Actual and Projected Households in the Region by County: 2010-2050


[^5]Figure 6.6
Actual and Projected Households in the Region by County: 1950-2050


[^6]Table 6.5
Average Household Size in the Region by County: Actual 2010 and Projected 2050

| County | Average Household Size (People per Household) |  |
| :--- | :---: | :---: |
|  | Actual 2010 | Projected 2050 |
|  | 2.58 | 2.42 |
| Milwaukee | 2.41 | 2.32 |
| Ozaukee | 2.47 | 2.39 |
| Racine | 2.52 | 2.36 |
| Walworth | 2.51 | 2.32 |
| Washington | 2.53 | 2.39 |
| Waukesha | 2.52 | 2.41 |
|  | 2.47 | 2.36 |

Source: U.S. Bureau of the Census and SEWRPC

- Ozaukee County: 10,300 households (30 percent increase)
- Racine County: 18,100 households (24 percent increase)
- Walworth County: 19,200 households (48 percent increase)
- Washington County: 22,700 households (44 percent increase)
- Waukesha County: 43,200 households (28 percent increase)


## Average household size is expected to decrease from 2.47 in 2010 to 2.36 in 2050.

Jobs in the Region are projected to increase to $\mathbf{1 , 3 8 6 , 9 0 0}$ by 2050, which is an $18 \%$ increase over 2010, but only a 12\% increase over the all-time high of $\mathbf{1 , 2 3 8 , 6 0 0}$ in 2007.

The higher growth rate of households relative to population is expected to be accompanied by a decrease in household size for the Region as a whole and each of the seven counties, as shown in Table 6.5. The average household size for the Region is expected to decrease from 2.47 people in 2010 to 2.36 people in 2050. This is expected to occur because of a combination of factors, including a continued change in household types and the increase in the older population age groups.

### 6.5 EMPLOYMENT PROJECTIONS

Commission projections of total employment in the Region for 2050 are shown in Table 6.6 and Figure 6.7. Total employment in the Region is projected to increase from about 1.18 million jobs in 2010 to 1.54 million jobs in 2050 under the high-growth scenario, to 1.39 million jobs under the intermediate-growth scenario, and to 1.24 million jobs under the lowgrowth scenario. The balance of this section focuses on the intermediate employment projection.

Total employment in the Region would increase by about 210,300 jobs, or 18 percent, over the 40 -year projection period, from 1,176,600 jobs in 2010 to $1,386,900$ jobs in 2050, under the intermediate-growth scenario. It is important to recognize that employment in the Region was unusually low in 2010, the base year of the new projections, because of the national economic recession that began in late 2007. Total employment decreased by 62,000 jobs, or 5 percent, from an all-time high of $1,238,600$ jobs in 2007. Projected total employment for the Region under the intermediate-growth scenario is 12 percent greater than the peak level of 2007.

There has been a significant change in the distribution of jobs among counties in the Region over the past decades, as described in Chapter 2. The largest distributional changes in employment among the Region's counties have occurred in Milwaukee and Waukesha Counties. Milwaukee County's share of regional employment decreased by about 30 percent over the previous six
Table 6.6
Actual and Projected Employment in the Region by County: 2010-2050

| County | Actual <br> Employment: 2010 |  | Projected Employment: 2050 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | High Projection |  |  | Intermediate Projection |  |  | Low Projection |  |  | Percent of Region Jobs ${ }^{\text {a }}$ |
|  | Number of Jobs | Percent of Region | Number of Jobs: 2050 | $\begin{aligned} & \text { Change: } \\ & 2010-2050 \end{aligned}$ |  | Number of <br> Jobs: 2050 | Change:$2010-2050$ |  | Number of <br> Jobs: 2050 | Change:$2010-2050$ |  |  |
|  |  |  |  | Number | Percent |  | Number | Percent |  | Number | Percent |  |
| Kenosha | 74,900 | 6.4 | 112,800 | 37,900 | 50.6 | 101,300 | 26,400 | 35.2 | 90,600 | 15,700 | 21.0 | 7.3 |
| Milwaukee | 575,400 | 48.9 | 678,100 | 102,700 | 17.8 | 608,900 | 33,500 | 5.8 | 544,500 | -30,900 | -5.4 | 43.9 |
| Ozaukee | 52,500 | 4.5 | 77,200 | 24,700 | 47.0 | 69,300 | 16,800 | 32.0 | 62,000 | 9,500 | 18.1 | 5.0 |
| Racine | 88,300 | 7.5 | 125,100 | 36,800 | 41.7 | 112,300 | 24,000 | 27.2 | 100,500 | 12,200 | 13.8 | 8.1 |
| Walworth | 52,700 | 4.5 | 77,200 | 24,500 | 46.5 | 69,300 | 16,600 | 31.5 | 62,000 | 9,300 | 17.6 | 5.0 |
| Washington | 63,900 | 5.4 | 97,300 | 33,400 | 52.3 | 87,400 | 23,500 | 36.8 | 78,100 | 14,200 | 22.2 | 6.3 |
| Waukesha | 268,900 | 22.8 | 376,900 | 108,000 | 40.2 | 338,400 | 69,500 | 25.8 | 302,700 | 33,800 | 12.6 | 24.4 |
| Region | 1,176,600 | 100.0 | 1,544,600 | 368,000 | 31.3 | 1,386,900 | 210,300 | 17.9 | 1,240,400 | 63,800 | 5.4 | 100.0 |

[^7]Figure 6.7
Actual and Projected Employment in the Region by County: 1970-2050


Source: U.S. Bureau of Economic Analysis and SEWRPC
decades, while Waukesha County's share increased by about 20 percent. The share of the other five counties in the Region combined increased by about 10 percent. Commission employment projections indicate a continuation of these historical trends in the distribution of jobs within the Region, but at a moderated pace. The projections consider a number of factors, including the historical trend in the number of jobs by county and the historical trend in each county's share of total regional employment. Also considered was the general pattern of planned commercial and industrial development identified in long-range county and community comprehensive plans as well as major commitments of public utilities to serve such development. Employment increases projected for the seven counties under the intermediate-growth scenario between 2010 and 2050 are as follows:

- Kenosha County: 26,400 jobs ( 35 percent increase)
- Milwaukee County: 33,500 jobs (6 percent increase)
- Ozaukee County: 16,800 jobs ( 32 percent increase)
- Racine County: 24,000 jobs ( 27 percent increase)
- Walworth County: 16,600 jobs (32 percent increase)
- Washington County: 23,500 jobs (37 percent increase)
- Waukesha County: 69,500 jobs (26 percent increase)

In general, the new employment projections indicate the continuation of the long-term shift in the regional economy from a manufacturing to a service orientation, as described in Chapter 2. Manufacturing jobs-which accounted for 30 percent of all jobs in 1970 and 13 percent in 2010-would comprise 9 percent of jobs in the Region in 2050 under the intermediate-growth scenario (see Table 6.7). Service jobs-which accounted for 26 percent of all jobs in 1970 and 50 percent in 2010-would comprise 55 percent in 2050. Projected changes in employment by industry group under the intermediategrowth scenario between 2010 and 2050 are as follows:

> Projections indicate a continuation of the long-term shift from manufacturing to service jobs.

- Manufacturing: -28,900 jobs (20 percent decrease)
- Construction: 17,400 jobs ( 38 percent increase)
- Wholesale Trade: 11,000 jobs (23 percent increase)
- Retail Trade: 26,100 jobs (14 percent increase)
- Services: 172,000 jobs (29 percent increase)
- Transportation, Warehousing, and Utilities: 7,200 jobs (19 percent increase)
- Government: 6,700 jobs (6 percent increase)
- Agriculture: - 1,200 jobs (23 percent decrease)
Projected Employment by Industry Group in the Region: 2010-2050

| Industry | Actual Employment:$2010$ |  | Projected Employment: 2050 |  |  |  |  |  | Projected Change: 2010-2050 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | High Projection |  | Intermediate Projection |  | Low Projection |  | High Projection |  | Intermediate Projection |  | Low Projection |  |
|  | Number of Jobs | Percent of Total | Number of Jobs | Percent of Total | Number of Jobs | Percent of Total | Number of Jobs | Percent of Total | Number | Percent | Number | Percent | Number | Percent |
| Manufacturing | 148,100 | 12.6 | 143,000 | 9.3 | 119,200 | 8.6 | 95,400 | 7.7 | -5,100 | -3.4 | -28,900 | -19.5 | -52,700 | -35.6 |
| Construction Wholesale | 45,900 | 3.9 | 71,300 | 4.6 | 63,300 | 4.5 | 57,300 | 4.6 | 25,400 | 55.3 | 17,400 | 37.9 | 11,400 | 24.8 |
| Trade | 48,800 | 4.2 | 66,700 | 4.3 | 59,800 | 4.3 | 52,400 | 4.2 | 17,900 | 36.7 | 11,000 | 22.5 | 3,600 | 7.4 |
| Retail Trade | 185,800 | 15.8 | 244,100 | 15.8 | 211,900 | 15.3 | 192,600 | 15.5 | 58,300 | 31.4 | 26,100 | 14.0 | 6,800 | 3.7 |
| Services | 584,400 | 49.7 | 828,200 | 53.6 | 756,400 | 54.5 | 684,700 | 55.2 | 243,800 | 41.7 | 172,000 | 29.4 | 100,300 | 17.2 |
| Transportation, Warehousing, and Utilities | 38,200 | 3.2 | 50,300 | 3.3 | 45,400 | 3.3 | 42,500 | 3.4 | 12,100 | 31.7 | 7,200 | 18.8 | 4,300 | 11.3 |
| Government | 117,700 | 10.0 | 133,400 | 8.6 | 124,400 | 9.0 | 109,700 | 8.9 | 15,700 | 13.3 | 6,700 | 5.7 | -8,000 | -6.8 |
| Agriculture | 5,200 | 0.4 | 5,100 | 0.3 | 4,000 | 0.3 | 3,300 | 0.3 | -100 | -1.9 | -1,200 | -23.1 | -1,900 | -36.5 |
| Other (unclassified) | 2,500 | 0.2 | 2,500 | 0.2 | 2,500 | 0.2 | 2,500 | 0.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 1,176,600 | 100.0 | 1,544,600 | 100.0 | 1,386,900 | 100.0 | 1,240,400 | 100.0 | 368,000 | 31.3 | 210,300 | 17.9 | 63,800 | 5.4 |

Table 6.8
Estimated Number of Jobs to be Accommodated by the Projected Labor Force in the Region: 2050

| Growth Scenario | Projected Population: 2050 | Projected Labor Force: 2050 | Assumed Unemployment Rate: 2050 | Multiple Job-holding FactorAssumed Range: 2050 |  | Jobs Able to be Accommodated by Projected Labor Force: 2050 |  | Projected Jobs: 2050 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | From | To | From | To |  |
| High | 2,577,700 | 1,287,400 | 4.0 | 1.194 | 1.268 | 1,475,700 | 1,567,100 | 1,544,600 |
| Intermediate | 2,354,000 | 1,171,300 | 5.0 | 1.194 | 1.268 | 1,328,600 | 1,410,900 | 1,386,900 |
| Low | 2,159,800 | 1,070,500 | 6.0 | 1.194 | 1.268 | 1,201,500 | 1,276,000 | 1,240,400 |

Source: SEWRPC

## Relationship Between Population and Employment Projections

The processes of preparing projections of future population and employment levels were closely coordinated to ensure consistency between the two because the labor force trends that may be expected in light of projected changes in the regional population need to be consistent with the projected employment trends. The relationship between projected employment levels and the labor force is described in this section.

Table 6.8 shows the size of the labor force in the Region that may be expected based on the Commission's projected population by age and sex and projected future labor force participation rates. The labor force would increase from $1,079,000$ people in 2010 to $1,287,400$ people in 2050 under the high-growth scenario, to $1,171,300$ people under the intermediategrowth scenario, and to $1,070,500$ people under the low-growth scenario. These projections indicate slower growth in the labor force than has occurred in the Region over the past 40 years. The expected reduced growth is directly related to the aging of the population, as a large segment of the workforce enters those age groups with lower labor force participation rates. The retirement of large numbers of seniors may be expected to dampen growth in the overall labor force in coming decades despite the fact that some seniors may work longer than in the past, which was assumed in the analysis.

Estimating the employment levels able to be accommodated by the labor force required that assumptions be made regarding unemployment and the extent of multiple job-holding. Unemployment rates of 4.0,5.0, and 6.0 percent were assumed for the high-, intermediate-, and low-growth scenarios, respectively. These were deemed to be representative of the long-term average rates that could reasonably be expected under the three growth scenarios. The measure of multiple job-holding used in this analysis is the ratio between the total number of jobs in the Region and the employed labor force. A range of multiple job-holding factors from 1.19 to 1.27-consistent with the range observed in the Region between 1990 and 2010-was considered for each growth scenario.

Table 6.8 shows the range in the number of jobs that could potentially be accommodated by the projected population and associated labor force under the high-, intermediate-, and low-growth scenarios based upon the foregoing assumptions. As indicated, the projected year 2050 job levels in the Region under the high-, intermediate-, and low-growth scenarios are within these ranges. This indicates basic consistency between the projected employment levels and the projected population and associated labor force in the Region under each growth scenario.

## The processes of preparing projections of future population and employment levels were closely coordinated.

Table 6.9
Actual and Projected Personal Income Levels in the Region: 1969-2050

| Income Category | Year | Constant 2010 Dollars |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Income Per Worker | Per Capita Income | Mean Household Income |
| Actual Income | 1969 | \$49,800 | \$20,100 | \$65,800 |
|  | 1979 | 51,900 | 24,300 | 68,300 |
|  | 1989 | 51,900 | 25,300 | 67,700 |
|  | 1999 | 59,100 | 29,200 | 75,300 |
|  | 2010 | 54,200 | 25,900 | 65,400 |
| Projected Income Projected Change in Income 2010-2050: | 2050 | \$63,000 | \$29,800 | \$72,000 |
| Dollars | -- | \$8,800 | \$3,900 | \$6,600 |
| Percent | -- | 16.2 | 15.1 | 10.1 |

Source: U.S. Bureau of the Census and SEWRPC

## Income projections are based on trends from the past 40 years, which include periods of very modest growth, rapid growth, and decline.

### 6.6 PERSONAL INCOME PROJECTIONS

The Commission's personal income projections focus on income per worker, per capita income, and mean household income. The historical trends in income per worker, per capita income, and mean household income in the Region, expressed in constant 2010 dollars, are presented in Table 6.9 and Figures 6.8 to 6.10 . The impact of the major recession of the late 2000 s is evident in the decrease in all three measures of personal income between 1999 and 2010.

The Commission's projection of income per worker is based upon the assumption that the long-term trend in per worker income would be similar to that observed over the past 40 years-which includes periods of very modest growth, rapid growth, and decline. The projected per worker income represents an extrapolation of the per worker income observed in the Region between 1969 and 2010.

The projections of per capita income and mean household income were derived from the per worker income projection. Thus, projected per capita income was determined by dividing the projected aggregate personal income by the projected population, where the projected aggregate personal income was obtained by multiplying the projected per worker income by the projected employed labor force. Similarly, the projected mean household income was determined by dividing the projected aggregate personal income by the projected number of households.

Worker income is projected to increase to \$63,000 a year in 2050, which is a $16 \%$ increase over 2010.


As indicated in Table 6.9 and Figures 6.8 to 6.10 , Commission projections indicate that per worker income in the Region would increase by 16 percent over the 40-year projection period, from $\$ 54,200$ in 2010 to $\$ 63,000$ in 2050. Per capita income would increase by 15 percent, from $\$ 25,900$ in 2010 to $\$ 29,800$ in 2050 . Mean household income would increase by 10 percent, from $\$ 65,400$ in 2010 to $\$ 72,000$ in 2050.

### 6.7 SUMMARY

This chapter presents a set of population, household, and employment projections for the Region for the period from 2010 to 2050. The projections were developed by the Commission as a basis for updating and extending the regional land use and transportation plan and other elements of the comprehensive plan for the Region. The new population and household projections are fully documented in SEWRPC Technical Report No. 11 (5th

Figure 6.8
Actual and Projected Income per Worker in the Region: 1969-2050 (Constant 2010 Dollars)


Source: U.S. Bureau of the Census and SEWRPC

Figure 6.9
Actual and Projected Per Capita Income in the Region: 1969-2050 (Constant 2010 Dollars)


Source: U.S. Bureau of the Census and SEWRPC

Figure 6.10
Actual and Projected Mean Household Income in the Region: 1969-2050 (Constant 2010 Dollars)


Source: U.S. Bureau of the Census and SEWRPC

Edition), The Population of Southeastern Wisconsin. The new employment projections are fully documented in SEWRPC Technical Report No. 10 (5th Edition), The Economy of Southeastern Wisconsin. These reports were prepared in tandem to ensure consistency between the Commission's longrange population and employment projections.

As in previous projection efforts, the Commission has prepared a range of future population, household, and employment levels-high, intermediate, and low-for the Region. This approach recognizes the uncertainty in any effort to predict future socioeconomic conditions. The Commission's Advisory Committee on Regional Population and Economic Forecasts considered the intermediate projection the most likely to occur for the Region as a whole. The high and low projections are intended to provide an indication of the range of population, household, and employment levels that could conceivably occur under significantly higher or lower, but nevertheless plausible, growth scenarios for the Region. The intermediate projections were used as the basis for VISION 2050, indicating the approximate future population, household, and employment levels in the Region that the plan should be designed to accommodate. It should be noted, however, that the projections were refined during the planning process because recommendations were made that altered the distribution of population, households, jobs, and urban land use within the Region in order to better achieve the long-range vision for the Region.

In addition to the population, household, and employment projections, this chapter presents a long-range projection of personal income levels for the Region, as required for certain aspects of the land use-transportation planning process.

The following is a summary of the year 2050 Commission projections:

## Population

- The Commission intermediate projection indicates that the regional population would increase by 334,000 people, or 17 percent, from $2,020,000$ people in 2010 to $2,354,000$ people in 2050 . The high projection indicates that the regional population could be as high as 2,577,700 people in 2050, an increase of about 557,700 people, or 28 percent, over the 2010 level. Conversely, the low projection indicates that the regional population could be as low as $2,159,800$ people in 2050, an increase of 139,800 people, or 7 percent, over 2010.
- The new projections anticipate continued change in the age composition of the regional population in the coming decades, particularly as a result of the aging of the large Baby Boomer population. Under the intermediate projection, the number of people age 65 and over is projected to nearly double during the projection period, accounting for about 21 percent of the total population in the Region in 2050, compared to about 13 percent in 2010.
- In addition to changes in the overall size and age characteristics of the regional population, continued change in the racial/ethnic makeup of the Region's population may be expected in the years ahead. Extrapolation of past trends indicates a significant increase in the minority share of the regional population-from 29 percent in 2010 to nearly 45 percent in 2050-and a corresponding decrease in the non-Hispanic White share. Similar changes are projected for the Nation as a whole.


## Households

- The intermediate projection indicates that the number of households in the Region would increase by 172,300, or 22 percent, from 800,100 households in 2010 to 972,400 households in 2050. The high projection indicates that the number of households in the Region could be as high as $1,064,700$ in 2050, an increase of 264,600 households, or 33 percent, over the 2010 level. The low projection indicates that the number of households could be as low as 892,100 in 2050, an increase of 92,000 households, or 12 percent, over 2010.
- Commission projections indicate that the average household size in the Region will continue its historical decline, with the rate of decline being somewhat moderated in the coming decades. The average household size in the Region is projected to decrease by 4.5 percent during the projection period, from 2.47 people in 2010 to 2.36 people in 2050. The decrease in household size is expected because of a continued change in household types and the increase in older population age groups.


## Employment

- The intermediate-growth projection indicates that employment in the Region would increase from $1,176,600$ jobs in 2010 to $1,386,900$ jobs in 2050, an increase of 210,300 jobs, or 18 percent. Total employment in the Region would increase to about 1,544,600 jobs in 2050, an increase of 368,000 jobs, or 31 percent, over 2010, under the high-growth scenario. Total employment would increase to about $1,240,400$ jobs in 2050 , an increase of 63,800 jobs, or 5 percent, over

2010, under the low-growth scenario. These projections are generally consistent with the size of the labor force that could be expected in the Region under the Commission's year 2050 population projections for each growth scenario.

- The new employment projections indicate the continuation of the long-term shift in the regional economy from a manufacturing to a service orientation. This shift is expected to occur under each growth scenario. Under the intermediate-growth scenario, manufacturing would account for 9 percent of all jobs in the Region in 2050, compared to 13 percent in 2010, 20 percent in 1990, and 30 percent in 1970. Service employment would represent 55 percent of all jobs in the Region in 2050, compared to 50 percent in 2010, 40 percent in 1990, and 26 percent in 1970.


## Personal Income

- Future personal income levels were projected by extrapolating trends observed in the Region over the past four decades. Constant dollar per worker income is projected to increase by about 16 percent over the 40 -year projection period, from $\$ 54,200$ in 2010 to $\$ 63,000$ in 2050. Constant dollar per capita income is projected to increase by 15 percent, from $\$ 25,900$ in 2010 to $\$ 29,800$ in 2050. Constant dollar mean household income for the Region is projected to increase by about 10 percent, from $\$ 65,400$ in 2010 to $\$ 72,000$ in 2050.


[^0]:    ${ }^{39}$ This represents the sixth set of population and employment projections for the Region prepared by the Commission. The first projections were prepared in the 1960s as a basis for the initial design year 1990 regional land use and transportation plans. Since then the projections have been updated and extended to 2000, 2010, 2020, and 2035serving as a basis for the preparation of the regional land use and transportation plans with corresponding design years. The projections are typically updated following the release of information from the 10 -year Census of population.

[^1]:    ${ }^{40}$ The cohort-component model is a widely used population projection method. Its name reflects the fact that the method involves disaggregating the population into cohorts, or subgroups, based on characteristics such as age and gender, and explicitly considering the three components of population change-births, deaths, and migration-with respect to each cohort.

[^2]:    ${ }^{41}$ A household includes all people who occupy a housing unit, which is defined by the Census Bureau as a house, apartment, mobile home, group of rooms, or single room that is occupied, or intended for occupancy, as separate living quarters. People not living in households are classified by the Census Bureau as living in group quarters, such as correctional facilities, college dormitories, and military quarters.

[^3]:    Source: U.S. Bureau of the Census and SEWRPC

[^4]:    ${ }^{42}$ The minority population of the Region is identified based on race and Hispanic origin.

[^5]:    Source: U.S. Bureau of the Census and SEWRPC

[^6]:    Source: U.S. Bureau of the Census and SEWRPC

[^7]:    ${ }^{a}$ Applies to all projections.
    Source: U.S. Bureau of Economic Analysis and SEWRPC

