

3.0 Purpose

The Population Inventory and Analysis Chapter of the Comprehensive Plan gives an overview of the pertinent demographic trends and background information necessary to develop an understanding of the changes taking place in the Town of Woodland. In this chapter we will examine the population profile of Woodland. The population profile includes features that affect community dynamics and processes such as regional trends in population, housing units and persons per household, as well as local trends of housing occupancy, population composition, age distribution and length of residency. In analyzing these trends and projections, citizens of the Town of Woodland will gain a more complete understanding of future planning issues that should be addressed within this Comprehensive Plan.

3.1 Regional Population and Housing Trends

In evaluating changes in population and housing units in the Town of Woodland, it is important to consider how these changes compare to regional and local trends. Recognizing similarities and differences in potential future growth between Woodland and nearby towns will allow the Town of Woodland to create a Comprehensive Plan unique to its specific issues and goals.

3.1.1 Population

As **Table P1 Regional Population Trends** indicates, the population in the Town of Woodland has slowly been increasing since 1990. Overall, between the years of 1990 and 2020, Woodland's population increased by 254 persons, or at an average of 13.64% per ten years. In comparison to neighboring towns, Woodland has experienced a steady but slow increase in population growth at a similar rate. The Town of La Valle which shares the Dutch Hollow Lake community with the Town of Woodland has grown at an average rate of 12.33% every ten years. The Town of Woodland however has experienced greater fluctuations between those ten year periods as between 1990 and 2000, the population increased by 33.85% while between 2010 and 2020 it only increased by 6.2%. On a larger scale, Sauk County experienced an average increase in population of 1.96% per ten years, and the State of Wisconsin averaged an increase in population of only 6.44% per ten years between 1990 and 2020. Through the examination of these regional trends it is evident that strategies addressing appropriate growth management will need to be incorporated into the Comprehensive Plan for the Town.

Table P1: Regional Population Trends

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Year	Town of Woodland		Town of La Valle		Town of Ironton		Town of Winfield		Town of Westford		Town of Willow		Sauk County		Wisconsin	
	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change
1970	617		693		658		608		658		528		39,057		4,400,000	
1980	594	-3.73%	929	34.05%	643	-2.28%	624	2.63%	558	15.20%	527	-0.19%	43,469	11.30%	4,700,000	6.82%
1990	585	-1.52%	1,005	8.18%	585	-9.02%	649	4.01%	513	-8.06%	572	8.54%	46,975	8.07%	4,891,769	4.08%
2000	783	33.85%	1,203	19.70%	650	11.11%	752	15.87%	594	15.79%	493	13.81%	55,225	17.56%	5,363,675	9.65%
2010	790	0.89%	1,302	8.23%	660	1.54%	856	13.83%	530	10.77%	579	17.44%	61,976	12.22%	5,686,986	6.03%
2020	839	6.20%	1,420	9.06%	662	0.30%	890	3.97%	516	-2.64%	496	14.34%	65,763	6.11%	5,893,718	3.64%
Overall Change 1970-2020	222	35.98%	727	104.91%	4	0.61%	282	46.38%	(142)	21.58%	(32)	-6.06%	26,706	68.38%	1,493,718	33.95%
Average Change per 10 years	44	7.14%	145	15.85%	1	0.33%	56	8.06%	(28)	-4.18%	(6)	-0.47%	5,341	11.05%	298,744	6.04%

Source: US Census 2020

3.1.2 Housing Units

From 1990 to 2020, the numbers of housing units have increased by over 150 units over the past thirty years with an average increase of 17.81% every ten years, which is a faster rate than the growth in population. This growth is similar to the Towns of La Valle and Winfield. As seen in **Table P2 Regional Housing Unit Comparison**, the Town of Woodland's increase in housing units (53.44%) over the past thirty years is comparable to the increase experienced by Sauk County (44.76%) and the state of Wisconsin (30.78%) in the same time period.

Table P2: Regional Housing Unit Comparison

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YEAR	Town of Woodland		Town of LaValle		Town of Winfield		Town of Ironton		Town of Westford		Town of Willow		Sauk County		Wisconsin	
	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change
1990	257		783		228		201		195		221		20,439		2,055,774	
2000	302	17.51%	914	16.73%	297	30.26%	221	9.95%	239	22.56%	242	9.50%	24,297	18.88%	2,321,144	12.91%
2010	396	31.13%	1,182	29.32%	359	20.88%	245	10.86%	254	6.28%	250	3.31%	25,192	3.68%	2,279,768	-1.78%
2020	415	4.80%	1,222	3.38%	372	3.62%	255	4.08%	236	-7.09%	241	-3.60%	30,784	22.20%	2,727,726	19.65%

Source: US Census, 1990 -2020

3.1.3 Average Household Size

Comparing the number of persons per household during 1990 and 2020 shows that the Town of Woodland remained relatively steady in numbers of persons per occupied house and may be slightly higher than some neighboring Towns, as seen in **Table P3 Regional Average Household Size Comparison**. Both the State and the County averaged approximately 2.9 persons per household in 2020.

Table P3: Average Household Size Comparison

Table P3: Average Household Size - Persons Per Household												
YEAR	Town of Woodland		Town of La Valle		Town of Ironton		Town of Winfield		Sauk County		Wisconsin	
	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change
1990	2.98		2.73		3.2		3.26		2.61		2.61	
2000	3.17	6.38%	2.67	-2.20%	3.11	-2.81%	2.84	-12.88%	2.51	-3.83%	2.5	-4.21%
2010	2.99	-5.68%	2.34	-12.36%	2.68	-13.83%	3.04	7.04%	2.43	-3.19%	2.43	-2.80%
2020	3.28	9.70%	2.52	7.69%	3.37	25.75%	2.56	-15.79%	2.92	20.16%	2.97	22.22%

Source: US Census, 1990 - 2020

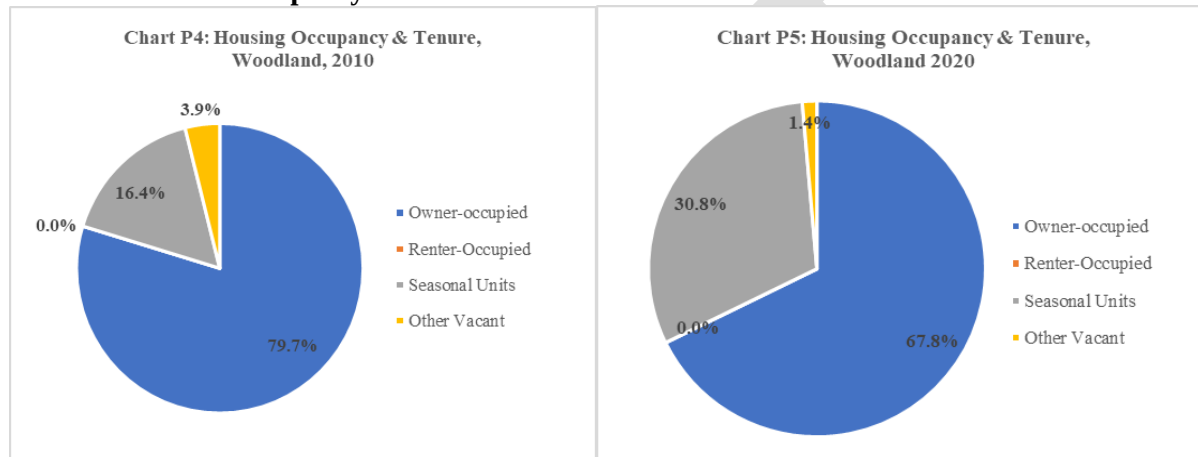
3.2 Local Population and Housing Trends

A look at local demographics profiles illustrates local trends and conditions, and provides insight as to the types of services both wanted and required by the community. The local trends section includes an examination of occupied housing, population composition, population by age bracket, and length of residency.

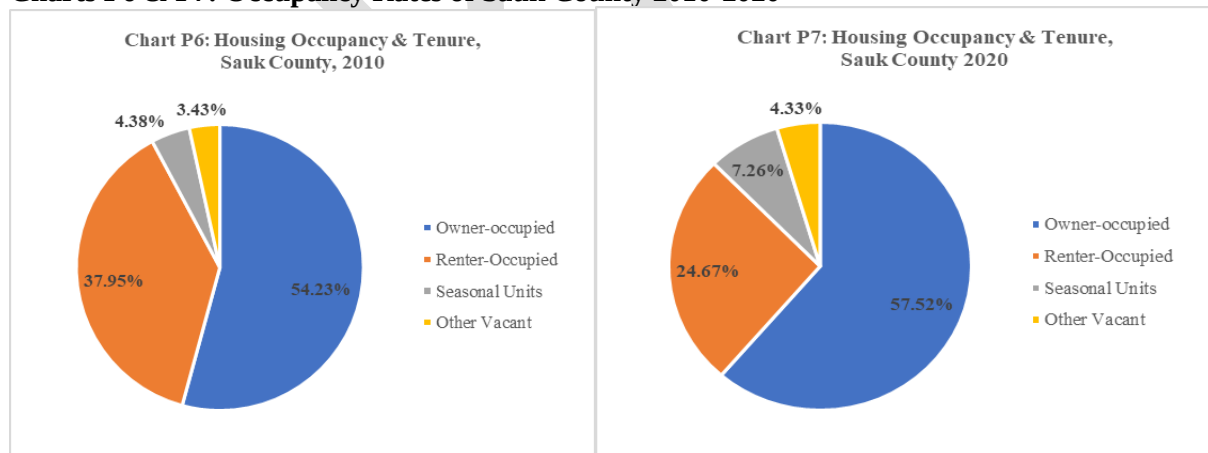
3.2.1 Occupied Housing

Determining the number of all housing units, the number of these units occupied, and the number of persons per occupied household will help to develop an understanding of population trends. In Woodland, the number of housing units increased from 396 in 2100 to 415 in 2020, the number of occupied housing units decreased from 79.7% in 2100 to 67.8% in 2020. However, seasonal units which include vacation rentals almost doubled from 16.4% in 2010 to 03.8% in 2020. Occupancy rate trends for both Woodland and Sauk County are noted for the years 2010 and 2020 on **Charts P4 through P7** below. It is quite evident from these charts that the Town of Woodland has significantly more housing units being used seasonally in comparison to Sauk County as a whole.

Charts P4 & P5: Occupancy Rates of Woodland 2010-2020



Charts P6 & P7: Occupancy Rates of Sauk County 2010-2020



Source: U.S. Census Data 2010-2020

3.2.2 Population Composition: Age, Gender and Race

Median age is defined as the age at which half of the population is above and half is below. **Table P8 Age and Gender, Woodland and Sauk County** shows the median age in Woodland at 32.9 in 2020, in comparison to Sauk County at 41. Woodland experienced a significant drop in the median age of its population as well as a increase in the percent of the population under 18 years of age and percentage of the population that is female. Also evident from this chart is that the percentage of the population over 65 years of age is slightly lower within the Town of Woodland in comparison to Sauk County.

Table P8: Age and Gender, Woodland vs Sauk County

Table P8: Age and Gender, Woodland and Sauk County								
Year	Median Age		Percent Under 18		Percent Over 65		Percent Female	
	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County
1990, per census	Not available	34.2	31.50%	27.19%	12.80%	15.77%	49%	50.79%
2000, per census	35.1	37.3	36.40%	26%	11.90%	14.50%	49.70%	50.60%
2010, per census	36.8	40	19.90%	23.80%	16.20%	15.00%	50.16%	50.20%
2020, per census	32.9	41	26.60%	22.80%	16.10%	18.40%	58.08%	52.00%

Source: U.S. Census, 1990 - 2000

Table P9 Ethnic Composition, Woodland and Sauk County shows that from 1990 to 2020 there was no significant decrease in the Caucasian population in the Town of Woodland despite a slight decrease in Sauk County. On the other hand, both the Town of Woodland and Sauk County experienced a slight increase within the Hispanic and African American populations. However, the percentage of Asians and Native Americans either did not change or remained at 0% in Woodland.

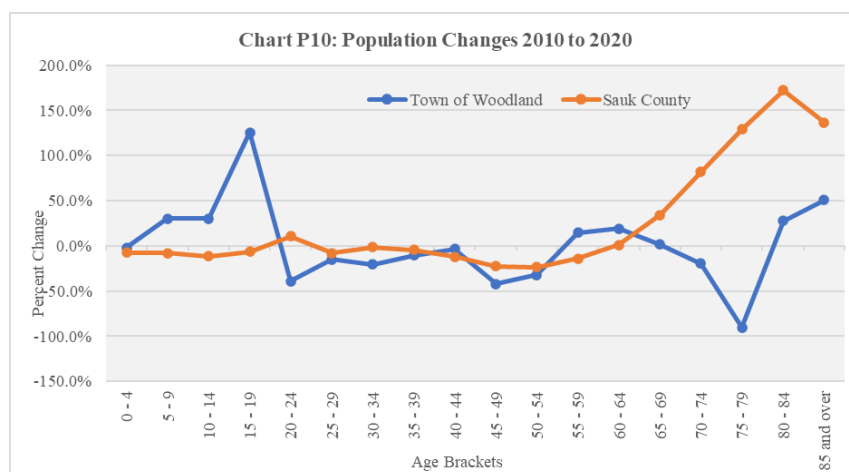
Table P9: Ethnic Composition, Woodland vs Sauk County

Table P9: Ethnic Composition, Woodland and Sauk County												
Year	Percent White		Percent Native American and Alaska Native		Percent Hispanic (of any race)		Percent Asian		Percent African American		Percent Other	
	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County	Town of Woodland	Sauk County
1990, per census	99.90%	98.50%	0.30%	0.60%	0.00%	0.40%	0.00%	0.20%	0.00%	0.10%	0.00%	0.20%
2000, per census	99.90%	98.00%	0.30%	1.10%	2.30%	1.20%	0.00%	0.30%	0.60%	0.30%	1.00%	0.70%
2010, per census	95.50%	94.50%	0.00%	1.20%	4.50%	4.30%	0.00%	0.50%	0.00%	0.60%	0.00%	1.90%
2020, per census	98.90%	93.20%	0.00%	1.70%	0.00%	5.30%	0.00%	0.50%	0.00%	0.70%	1.10%	2.70%

Source: US Census, 2000

* Composition may equal more than 100% because some may report more than one ethnicity.

3.2.3 Population per Age Bracket



Source: US Census 2010-2020

3.2.4 Length of Residency

Year	Woodland per 2020 Census	Sauk County, per 2020 Census
1989 or earlier	11.70%	13.60%
1990-1999	12.40%	13.50%
2000-2009	38.60%	22.80%
2010-2014	23.80%	17.40%
2015-2018	12.80%	28.00%
2019 or later	0.70%	4.70%

Source: U.S. Census Data

3.3 Population Projections

Given the large increase of population over the last 10-year period in the Town of Woodland, it is relatively safe to assume that populations will continue to increase in the future. However, the exact rate of increase is not known, nor can it be predicted with complete accuracy. Estimates of future growth for the Town of Woodland are necessary for effective planning. To estimate future population growth for the Town of Woodland, two population projection methods were utilized. The first is a growth (or exponential) projection, and the projection provided by the Wisconsin Department of Administration. The second method is a housing-driven population projection.

	1980 Census	1990 Census	2000 Census	2010 Census	2020 Census	Percent Change 1980-2020	Average Percent Change 1980-2020
Town of Woodland	594	584	783	790	839	41.2%	9.9%
Sauk County	43,469	55,225	58,121	61,976	65,763	51.3%	11.3%
Wisconsin	4,705,642	4,891,769	5,363,704	5,686,986	5,893,718	25.2%	5.8%

3.3.1 Standard Population Projection Methods

- Growth Projection.** The growth projection works in the same manner as the linear projection except that it applies an exponential growth curve to the data. Using the exponential growth method, the rate of population change in each subsequent year increases or decreases at a rate greater than the previous year. This method assumes the population will grow (or decline) without inhibition.

Table P14 Town of Woodland Population Growth Projections, 2030-2040 utilizes the average ten year growth rates between 1970 and 2020 and assumes that the municipality will exponentially grow at that each for each consecutive ten year period. This method estimates that the Town of Woodland will have a population of 934 by the year 2030, and 1,039 by the year 2040.

Table P14: Town of Woodland Population Growth Projections 2030-2040							
	2010	2020	Average Percent Change 1980-2020	2030	2040	2050	Percent Change
	Census	Census		Projection	Projection	Projection	2010-2050
Town of Woodland	790	839	11.3%	934	1,039	1,157	37.9%
Sauk County	61,976	65,763	11.3%	73,194	81,465	90,671	37.9%
Wisconsin	5,686,986	5,893,718	5.8%	6,235,554	6,597,216	6,979,854	18.4%

Source: US Census Bureau

- Department of Administration Projection Method.** The DOA projection method works in the same manner as the linear projection model except that it gives more weight or influence to more recent years' data. This method calculates a projection (best-fit line) for three historic time periods: 1980-2013, 1990-2033 and 2000-2033. Each projection is then averaged together for a final projection. By averaging the three projections, population change that has occurred in the more recent time period is given more influence. This projection method is based on the premise that recent population trends, from the last 5 or 10 years for example, are more realistic for explaining future population growth than older trends, from 20 or 30 years ago. In some cases, this method can result in gross over- or underestimations of population growth. For example, consider a town of 500 where 5 new residents are added in one year. If this same rate of growth is applied over the next 20 years the town will swell to 600 people. What if, however, you lost 3 residents in the next year? If you apply this average rate of growth (2 people/year) you would have an increase of only 40 people in the next 20 years. The DOA method dampens the effect of very immediate population fluxes by including the three historic time periods. In addition, the DOA method adjusts for abnormal rates of change, such as annexations.

Chart P15 Town of Woodland Population Projections 2030-2040 shows the DOA method, which places emphasis on more recent population changes. This method estimates a slower population growth with 960 people by 2030 and only 985 by the year 2040. In the year 2020 we have both the projected and actual population number to check possible accuracy.

Table P15: Town of Woodland DOA Population Projections 2030-2040								
	2010	2020		2025	2030	2035	2040	Percent Change
	Census	Census	Projection	Projection	Projection	Projection	Projection	2010-2040
Town of Woodland	790	839	870	920	960	980	985	24.7%
Sauk County	61,976	65,763	68075	72,175	75,660	77,265	77,815	25.6%
Wisconsin	5,686,986	5,893,718	6005080	-	6,375,910	-	6,491,635	14.1%

Source: US Census Bureau

3.3.2 Housing-Driven Population Projections

The housing-driven population projections calculate future population growth based on expected housing growth and the current or expected persons per household. In some instances, this method is a fairly accurate tool, especially when coupled with one of the methods above to serve as a check and balance. The method is best summarized by the following equation:

$$[(\# \text{ Housing units}) \times (\text{occupancy rate}) \times (\# \text{ people/housing unit})] \\ = \text{Population projection}$$

However, the caveat to housing-driven projections is that calculations are based on the assumption that populations grow based on the availability of housing stock. A similar method is widely used to calculate population growth based on employment growth. People often move to an area for a new job, but are less likely to move their family because of more readily available housing. Housing is usually created due to demand, and not the other way around.

Table P16: Town of Woodland Housing Driven Population Projections show through the year 2050. Due to the high average number of persons per household and the discrepancy between the percent rise in housing units versus the rise in the population, this method estimates a much faster growth in the population. By the year 2030, the population is estimated to rise to 1,305 and by 2040 to 1,537. As it only takes into account occupied housing units, these numbers should not be affected by the rise in vacation rentals.

2020 Demographics				2030 Projection		2040 Projection		2050 Projection		Percent Change 2020-2050	
Occupied Housing Units	Average Change in Housing Units 1990-2020	Average Household Size	2020 Population	Housing Units	Population	Housing Units	Population	Housing Units	Population	Housing Units	Population
290	17.80%	3.82	839	342	1305	402	1537	474	1811	63%	116%

Source: US Census Bureau

3.3.4 Population Projection Analysis

Population projections based on historic population trends produced similar projections as can be seen in **Charts P14** and **P15** above. Both projection methods illustrate a constantly growing population that will hover at approximately 1,000 persons by the year 2040. The DOA projection method, because it only takes into account population trends from 1990-2010, may not be an accurate assessment of future populations due to the more recent growth increase experienced by the Town. Conversely, the growth methods may be most reliable due to the fact that they utilize population changes since 1970 and up to the 2020 Census data.

The projection types based on housing units and average household size take into consideration that housing units are increasing within the Town while average household size has increased slightly. If housing units and occupancy rates continue to increase, as they are currently, the population for the Town of Woodland will increase exponentially as shown in the **Chart P14**. Although it difficult to ascertain when population growth trends will change, it is almost certain that from this point on, the population in the Town of Woodland will continue to grow. The rate of growth experienced over the last 10 years will most likely continue and even increase over time, as more and more people are attracted to the community.