

Wisconsin Population 2035

**A Report on Projected State and County Populations
and Households for the Period 2000-2035 and
Municipal Populations, 2000-2030**

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Foreword

In 1973, under the guidance of University of Wisconsin-Madison sociology faculty and a council of state, regional and local officials, the Department of Administration produced its first set of municipal population estimates to comply with the needs of the restructured state Shared Revenue Program.

Over the past 35 years, the Demographic Services Center has developed into the primary source of demographic information for state residents and the state and local agencies that serve them. In addition to the population estimates that we are required to produce annually, Demographic Services creates state, county and municipal population and household projections periodically. Furthermore, in our role as an official State Data Center for the U.S. Census Bureau, we help data users understand not just our data products, but those of the Census and other federal statistical agencies.

In terms of population, Wisconsin is relatively stable and growing moderately in comparison to other states. We are not subject to the heavy population growth of the southern and western Sunbelt states, nor are we heavily dependent on industries that cause booms and busts in migration. Like most of the states and the nation as a whole, the progression of the “Baby Boom” generation—defined as those born from 1946 through 1964—will dictate our demographic patterns of births, deaths and migration over the next 30 years.

At the county and municipal level, more variation in growth patterns will be seen. Our projections indicate that the state’s population is likely to become more concentrated in metropolitan areas and adjoining counties. The pattern of “retiree” migration to the state's recreational counties will likely continue, with later return migration to metropolitan areas for health care and long-term care services. Finally, as the number of deaths rise, more counties will slip from natural increase (that is, more births than deaths) to natural decrease.

In making its projections, Demographic Services applies the cohort-component methodology, a method widely used by applied demographers in states that have comparatively steady population change. This model involves the review of recent historical patterns (in this current set of projections, the 1990-2000 period between the federal censuses and the 2000-2005 estimated population change) to produce base age- and sex-specific rates of fertility, mortality and migration. We develop projected rates of fertility and mortality in relationship to national ones. Our forecasts on the level of migration into, or out of, the state are guided by historical experience and probable labor force needs—a much more unpredictable element due to the likely surge in workforce retirements in the next two decades.

On the whole, these projections are “base-line” ones: taking recent demographic experience and carrying these experiences into the future, incorporating likely modifications as the population ages.

DOA produced its first edition of state and county projections in 1972. Over the past three and one-half decades, modifications in our methodology have improved the accuracy of the projections, particularly at the county level. The state-level projections with a two-year horizon to the next Census (that is, published in years ending in 8) have proven to be 0.8 percent off on average. At a roughly seven-year horizon, the average absolute error is 2 percent, with the most recent set being 1.4 percent low. At 12- and 17-year horizons (that is, projections to the subsequent Census), the average errors are in the neighborhood of 6 percent.

For counties, the projections have been accurate to 3 percent on average for two-year horizons, 4.4 percent at seven years, 6 percent at 12 years and 8 percent at 17 years, with substantial improvement—more than halving the error rate—in the last three categories. In particular, the accuracy rates for larger counties (those counties with more than 60,000 people) have improved by one-half to two-thirds over the progression of time.

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2000-2035 Population Projections Executive Summary

State Highlights

- Wisconsin's population in 2035 is projected to be 6.65 million, nearly 1.3 million more than the 2000 Census count of 5.36 million. The state's population is expected to grow by 24.1 percent during the period.
- Wisconsin's population is estimated to have grown by 4.2 percent from 2000 to 2005, and is projected to grow by 7.1 percent from 2005 to 2015, 6.7 percent from 2015 to 2025, and 4.1 percent from 2025 to 2035.
- The preschool- and school-aged populations together—ages 0 through 17—is projected to decrease slightly from 1,369,000 in 2000 to 1,327,000 in 2010, and then increase steadily to 1,448,000 in 2035. However, its percentage of the population is predicted to decline gradually, from 25.5 percent in 2000 to 21.8 percent in 2035.
- The traditional working age population—ages 18 through 64—is projected to rise from 3.29 million in 2000 to its peak of 3.75 million in 2020, then decline slightly by 2035 to 3.72 million. This age group's proportion of the total population, starting at 61.4 percent in 2000, will likely peak at 63.4 percent in 2010, then decline over the following 25 years to 55.9 percent in 2035.
- The number of births in Wisconsin is projected to show an increase from under 350,000 in the 2000-2005 period to approximately 389,000 in each of the two five-year periods after 2015, then tapering off slightly to approximately 386,000 in the two subsequent periods. The volume of deaths, however, is projected to increase substantially due to the aging population, from 232,000 in 2000-2005 to 329,000 in 2030-2035. Consequently, natural increase—the excess of births over deaths—is projected to decline from its peak of 126,000 during 2010-2015 to 57,000 during 2030-2035.
- The 65 and over population is projected to increase slowly up to 2010, and then grow dramatically as the Baby Boomers join the ranks of the elderly. Wisconsin's elderly population is projected to more than double over the 35-year period, from 703,000 in 2000 to 1,486,000 in 2035. Senior citizens formed 13 percent of the state's total population in 2000. Their proportion in the total is projected to rise to over 22 percent in 2035.
- The population aged 85 and over is projected at 222,500 in 2035, an increase of 127,000—or over 133 percent—of their 2000 tally of 95,600.
- Wisconsin's centenarians are projected to increase by more than 5 times from 1,000 in the year 2000 to 5,700 in 2035.
- The number of Wisconsin households is projected to increase from 2.08 million in 2000 to 2.80 million in 2035, a numeric change of 717,000 and percentage change of 33 percent. The increase in households is projected to be faster than the total population due to a rise in the number of persons living alone and an aging population in smaller sized households.
- The average Wisconsin household size is projected to decrease from 2.5 persons in 2000 to 2.3 persons in 2035.
- The number of Wisconsin households headed by a person aged 65 or over is projected to increase by 111 percent from 2000 to 2035. The proportion of all households headed by an elderly resident is expected to rise from 21 percent to 33 percent over these 35 years.

County Highlights

- Seventy of Wisconsin's 72 counties are projected to grow during the period 2000-2035. Milwaukee County (-8 percent) and Menominee County (-20 percent) are projected to lose population due to declining natural increase and negative net migration (more residents moving out than moving in).
- Thirty-three counties are projected to grow faster than the state rate of 24.1 percent from 2000 to 2035.
- St. Croix County is projected to experience the fastest rate of growth at 134 percent during the 35-year period. Dane County is projected to gain 227,000 residents during the 35-year period, the largest numeric increase among all counties.
- Milwaukee County is projected to decline approximately 77,000 residents, from 940,000 in 2000 to 863,000 in 2035. In spite of this loss, Milwaukee County is projected to continue to be Wisconsin's most populous county for the foreseeable future. Furthermore, the Milwaukee-Waukesha metro area is projected to increase by 90,000 residents or 6 percent.
- The ten fastest growing counties during the 35-year period—Calumet, Dane, Oconto, Kenosha, Pierce, Polk, St. Croix, Sauk, Walworth, and Washington—are each located within or adjacent to a major metropolitan area. Their numeric growth is projected to account for 45 percent of the state's increase over 35 years.
- Projected to be the eight slowest growing counties during the 35-year period are Ashland, Florence, Forest, Iron, Lafayette, Price, Rusk and Taylor. These counties are located in rural areas and geographically removed from large economic centers.
- Household size is projected to decline in all of Wisconsin's counties. Menominee County had the highest average household size in 2000 at 3.35 persons per household; however, it is expected that by 2035, Clark County will have the highest average household size at 2.67 persons per household.

Municipal Highlights

- Between 2000 and 2030, the population of Wisconsin's cities is projected to increase by 15 percent, town population by 29 percent and village population by 34 percent, with overall population growth expected to be 22 percent.¹
- The proportion of Wisconsin's population in cities is projected to decrease from 56.1 percent in 2000 to 53 percent in 2030. Towns are projected to increase from 29.4 percent to 31 percent, and villages from 14.5 percent to 16 percent.
- Wisconsin's communities between 1,000 and 2,499 are expected to experience the slowest growth from 2000 to 2030 at 13 percent. Communities with 2,500 to 4,999 residents are projected to grow fastest at 33 percent.
- Milwaukee, Madison, Green Bay, Kenosha and Appleton are projected to be Wisconsin's largest communities through 2030 with Appleton replacing Racine as fifth largest.
- The City of Milwaukee is projected to decrease from 597,000 residents in 2000 to 544,000 in 2030.
- Between 2000 and 2030, the number of households in Wisconsin is expected to increase by nearly 654,000. Cities are projected to show an increase of over 288,000 households from 2000-2030, followed by nearly 233,000 in towns and nearly 133,000 in villages.

¹ Due to methodological considerations, municipal projections have a shorter time horizon than state and county projections.

Chapter 1

State-Level Population and Household Projections, 2000-2035



Overall Population Growth

Wisconsin's population rebounded forcefully in the 1990s after experiencing slow growth in the 1980s. The state gained more than 225,000 persons through migration in the 1990s, compared to a net *out*-migration of 125,000 in the 1980s. Total population growth registered at 5.0 percent in the first half of the 1990s and 4.5 percent in the second half. The overall growth rate in the 1990s was more than twice the rate in the 1980s.

Population growth also remained strong in the first five years of this decade. Based on Demographic Services Center's estimates, Wisconsin added 226,000 residents, or 4.2 percent, from April 2000 to April 2005, with net migration amounting to nearly one-half of this increase.

Wisconsin's population is projected to grow by 24.1 percent from 2000 to 2035, an averaged rate of 3.1 percent in each of the 5-year periods. This predicted growth rate is lower than that of the 1990s and early 2000s but markedly faster than that of the 1980s. This projected growth in the state's population is noteworthy because it must be viewed in the context of an aging population as the Baby Boomers, born in the 1945-1964 period, join the ranks of the elderly.

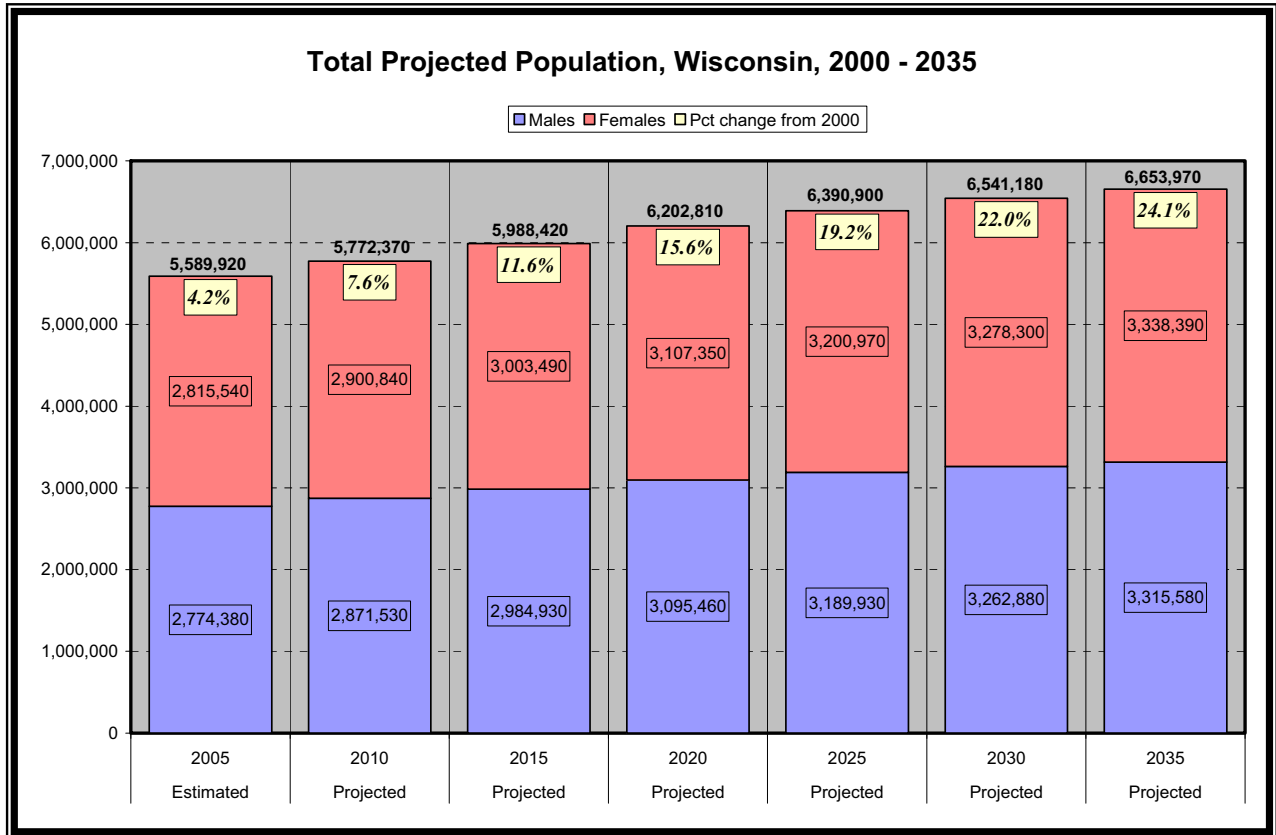
As shown in Table 1, population growth is projected to slow in the 2020-2035 period when the youngest of the Baby Boomers age into their 60s and early 70s, leading to a rise in the number of deaths and a consequent reduction in natural increase. The growth rate is projected to descend from 3.3 percent in the 2020's to 1.7 percent by 2030-2035.

Table 1: Estimated (1980-2005) and Projected (2010-2035) Wisconsin Population Change, 5 Year Intervals

Year	Population	Numeric Change	Percent Change
1980	4,705,642		
1985	4,771,758	66,116	1.41%
1990	4,891,769	120,011	2.52%
1995	5,134,123	242,354	4.95%
2000	5,363,715	229,592	4.47%
2005	5,589,920	226,205	4.22%
2010	5,772,370	182,450	3.26%
2015	5,988,420	216,050	3.74%
2020	6,202,810	214,390	3.58%
2025	6,390,900	188,090	3.03%
2030	6,541,180	150,280	2.35%
2035	6,653,970	112,790	1.72%

The total projected state population by sex, and the percentage change from 2000, for each 5-year period is shown in Figure 1 on the following page. Currently, there is a differential of roughly 41,000 more women than men. This gap is expected to narrow over the projections period, but women should still outnumber men by approximately 23,000 at 2035.

Figure 1: Total Projected Population, Wisconsin, 2005-2035



Components of Change

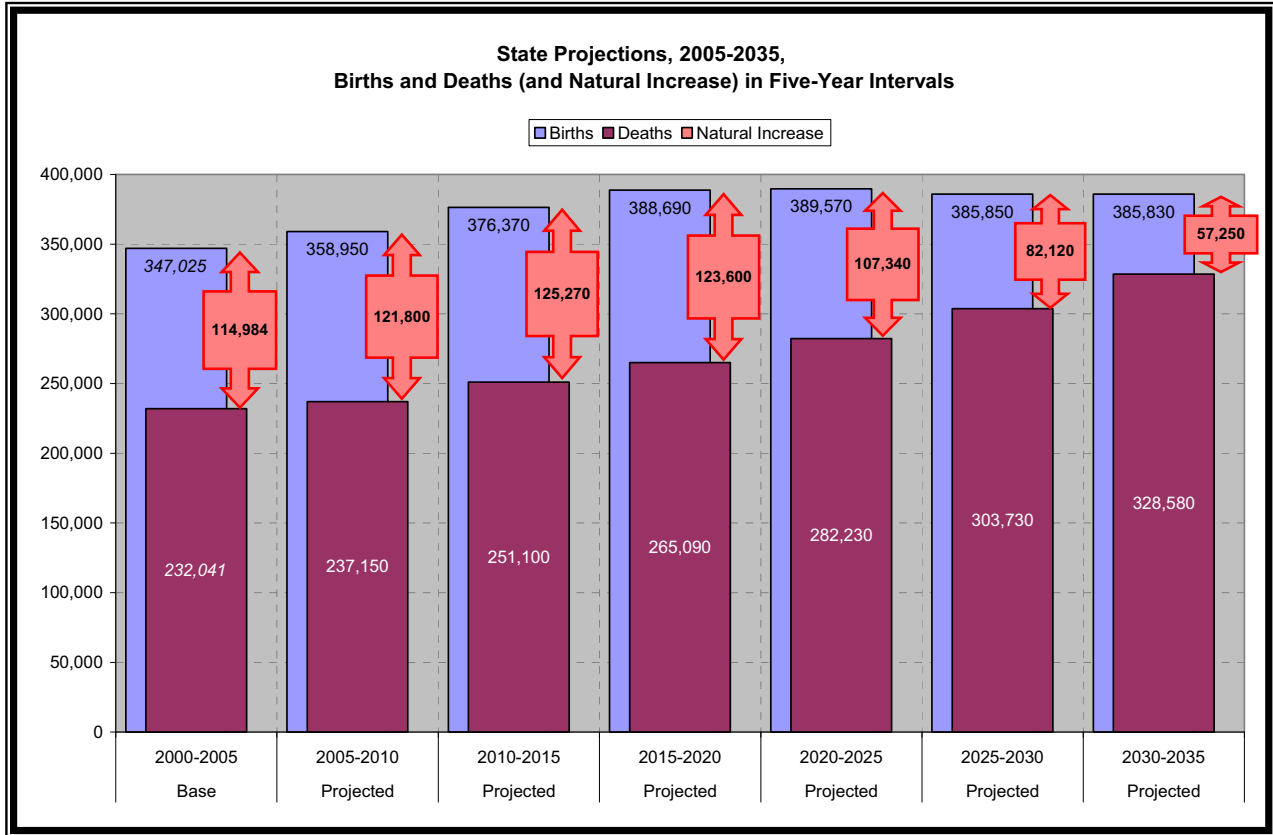
The change in a population is commonly described in componential terms: the change attributable to natural increase—the difference between births and deaths—and to migration, in particular, the difference between new residents moving into an area from other areas and those moving out.

The Natural Increase Component

Demographic Services estimated that Wisconsin’s natural increase was approximately 115,000 for 2000-2005. The state’s natural increase is projected to climb through the next fifteen years; the cohort of women in their primary years of fertility will be larger than it is currently, and the fertility rate is expected to increase modestly as well. However, after 2020, while the number of births and the fertility rate are projected to remain relatively constant, the acceleration in the number of deaths will dampen the role of natural increase in the state's population growth.

Figure 2 on the next page illustrates Wisconsin’s projected births and deaths in five-year intervals through 2035. The number of deaths are expected to increase by almost 50 percent from the base 2000-2005 period.

Figure 2: Births and Deaths (and Natural Increase)



As shown in Table 2, the crude birth rate (the number of births per 1,000 population per year) is likely to remain constant at about 12.75 in the first half of the 2000s through 2020, but beginning to decline during the 2020's and falling to 11.7 by 2035. The crude death rate is expected to rise from around 8.5 per 1,000 from 2000 until 2015, slightly increases every period until reaching a high of nearly 10 in 2035. Thus, the rate of natural increase will first rise marginally from 4.2 per 1,000 in 2000-2005 to 4.3 in 2005-2010, but then decline to 1.7 by 2030-2035.

Table 2: Wisconsin Crude Birth and Death Rates, 1990-2000 History and 2000-2035 Projections

5-Year Period	Crude Birth Rate	Crude Death Rate	Natural Increase Rate
1990-1995	14.21	8.72	5.49
1995-2000	12.97	8.77	4.21
2000-2005	12.74	8.52	4.22
2005-2010	12.70	8.39	4.31
2010-2015	12.80	8.54	4.26
2015-2020	12.75	8.70	4.06
2020-2025	12.37	8.96	3.41
2025-2030	11.93	9.39	2.54
2030-2035	11.70	9.96	1.74

Rates per 1000 persons per year

The Migration Component

Wisconsin's net migration is projected to remain positive throughout the projection period and within each five-year time frame. Variations from one interval to the next can be expected due to changes in the labor market (both state and national) and retiree relocation across time. Demographic Services estimated that the net gain through migration for 2000-2005 was approximately 111,000. The economic slowdown of the latter half of this decade led us to taper the projected net migration for 2005-10 to 61,000 for a decadal increase of 172,000. However, with increased retirements in the labor force beginning after 2010, we project slightly more than 90,000 net migrants during each of the two successive 5-year periods, or almost 182,000 for the decade. Beyond 2020, the need to replace retiring workers will still remain high, but we anticipate more out-migration (with a larger pool of retirees than the state has seen in the past, numeric out-migration will rise), and perhaps greater competition for workers among states, indicating the net result will be lower.

As shown in Table 3, net migration contributed nearly one-half to Wisconsin's population growth in the 1990s and this trend continued until 2005. After a dip in the 2005-2010 period to approximately one-third of growth, net migration is expected to contribute better than 40 percent to the increase in the state's population every five years.

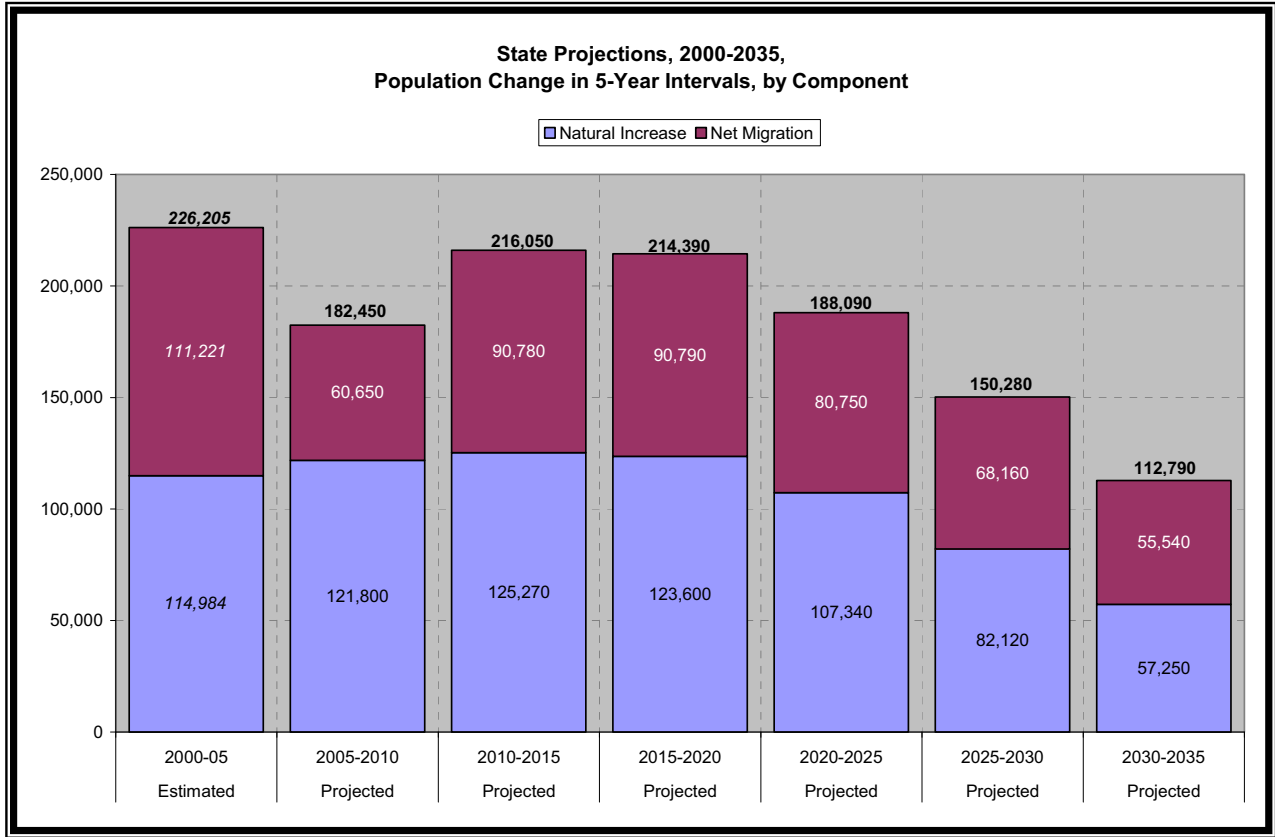
Table 3: Estimated (1990-2005) and Projected (2005-2030) Change in Wisconsin Population Due to Natural Increase and Net Migration

Year	Population	Total Change	Change Due to Natural Increase	Change Due to Net Migration	Percent Due to Natural Increase	Percent Due to Net Migration
1990	4,891,769					
1995	5,134,123	242,354	134,634	107,720	55.6%	44.4%
2000	5,363,715	229,552	109,717	119,835	47.8%	52.2%
2005	5,589,920	226,205	114,984	111,221	50.8%	49.2%
2010	5,772,370	182,450	121,800	60,650	66.8%	33.2%
2015	5,988,420	216,050	125,270	90,780	58.0%	42.0%
2020	6,202,810	214,390	123,600	90,790	57.7%	42.3%
2025	6,390,900	188,090	107,340	80,750	57.1%	42.9%
2030	6,541,180	150,280	82,120	68,160	54.6%	45.4%
2035	6,653,970	112,790	57,250	55,540	50.8%	49.2%

Figure 3 on the next page illustrates this tabular data by five-year interval.

Life expectancy is not the issue in the rise in deaths. Demographic Services has projected that Wisconsin male life expectancy will increase from an estimated 75.9 years at 2002 to 78.9 in 2032, and Wisconsin female life expectancy from 81 to 84.5 over this same period. These rates exceed the United States expectancies currently and in the future. In spite of assumed improvements in life expectancy, the burgeoning size of Wisconsin's aged population—described more thoroughly in the next section on age composition—will result in the rapid rise in deaths, particularly after 2020.

Figure 3: State Projections 2000-2035, Population Change in 5-Year Intervals, by Component



Age Composition

Although the state's total population is expected to grow by 24 percent over the 35-year projection period, the change in certain age groups will be much greater. In general, we project growth will be heavily concentrated in the over 65 age cohorts. Table 4 depicts the projected population change for three broad age segments and several subsegments.

Table 4: Wisconsin Projected Population Data by Broad Age Group, 2000-2035

Age Cohort	Census 2000	Estimated 2005	Projected 2010	Projected 2015	Projected 2020	Projected 2025	Projected 2030	Projected 2035	Percent Change
0-17	1,368,756	1,351,330	1,327,120	1,349,090	1,397,140	1,434,380	1,450,810	1,448,200	5.8%
18-64	3,292,406	3,512,310	3,662,440	3,739,160	3,745,050	3,712,920	3,687,470	3,720,200	13.0%
<i>18-24</i>	<i>520,629</i>	<i>572,520</i>	<i>574,980</i>	<i>553,530</i>	<i>528,730</i>	<i>539,430</i>	<i>555,980</i>	<i>577,800</i>	<i>11.0%</i>
<i>25-44</i>	<i>1,581,724</i>	<i>1,527,950</i>	<i>1,500,640</i>	<i>1,547,380</i>	<i>1,616,340</i>	<i>1,632,340</i>	<i>1,603,240</i>	<i>1,570,350</i>	<i>-0.7%</i>
<i>45-64</i>	<i>1,190,053</i>	<i>1,411,840</i>	<i>1,586,820</i>	<i>1,638,250</i>	<i>1,599,980</i>	<i>1,541,150</i>	<i>1,528,250</i>	<i>1,572,050</i>	<i>32.1%</i>
65 & over	702,553	726,280	782,810	900,170	1,060,620	1,243,600	1,402,900	1,485,570	111.5%
<i>65-84</i>	<i>606,928</i>	<i>619,100</i>	<i>658,830</i>	<i>764,710</i>	<i>920,840</i>	<i>1,094,620</i>	<i>1,229,300</i>	<i>1,263,020</i>	<i>108.1%</i>
<i>85 & over</i>	<i>95,625</i>	<i>107,180</i>	<i>123,980</i>	<i>135,460</i>	<i>139,780</i>	<i>148,980</i>	<i>173,600</i>	<i>222,550</i>	<i>132.7%</i>
<i>Centenarians</i>	<i>994</i>	<i>1,400</i>	<i>1,860</i>	<i>2,600</i>	<i>3,450</i>	<i>4,410</i>	<i>5,200</i>	<i>5,740</i>	<i>477.5%</i>

In terms of very broad age groups, the 0-17 age population, after a decline through the first decade due to lower births in the late 1980s and 1990s, is projected to increase by 6 percent, from 1,369,000 in 2000 to 1,448,000 in 2035. The 18-64 age population is expected to increase relatively steadily from 3,292,000 in 2000 to 3,720,000

in 2035. Finally, the 65 and over population is projected to more than double over the 35-year period.

The 18 through 24 age group, representing the traditional ages for college enrollment and entry into the labor force, was tallied at 521,000 in the 2000 Census. Their number is projected to reach a high of 575,000 in 2010, fall to 529,000 in 2020 and then gradually increase to nearly 578,000 by 2035.

The age 25 through 44 segment, with a total of 1,582,000 in 2000, is projected to decrease 79,000 to 1,503,000 in 2010, rebound to 1,634,000 in 2025 and then decline to 1,572,000 in 2035. Thus, their number in 2035 is projected to be 0.6 percent below Census 2000.

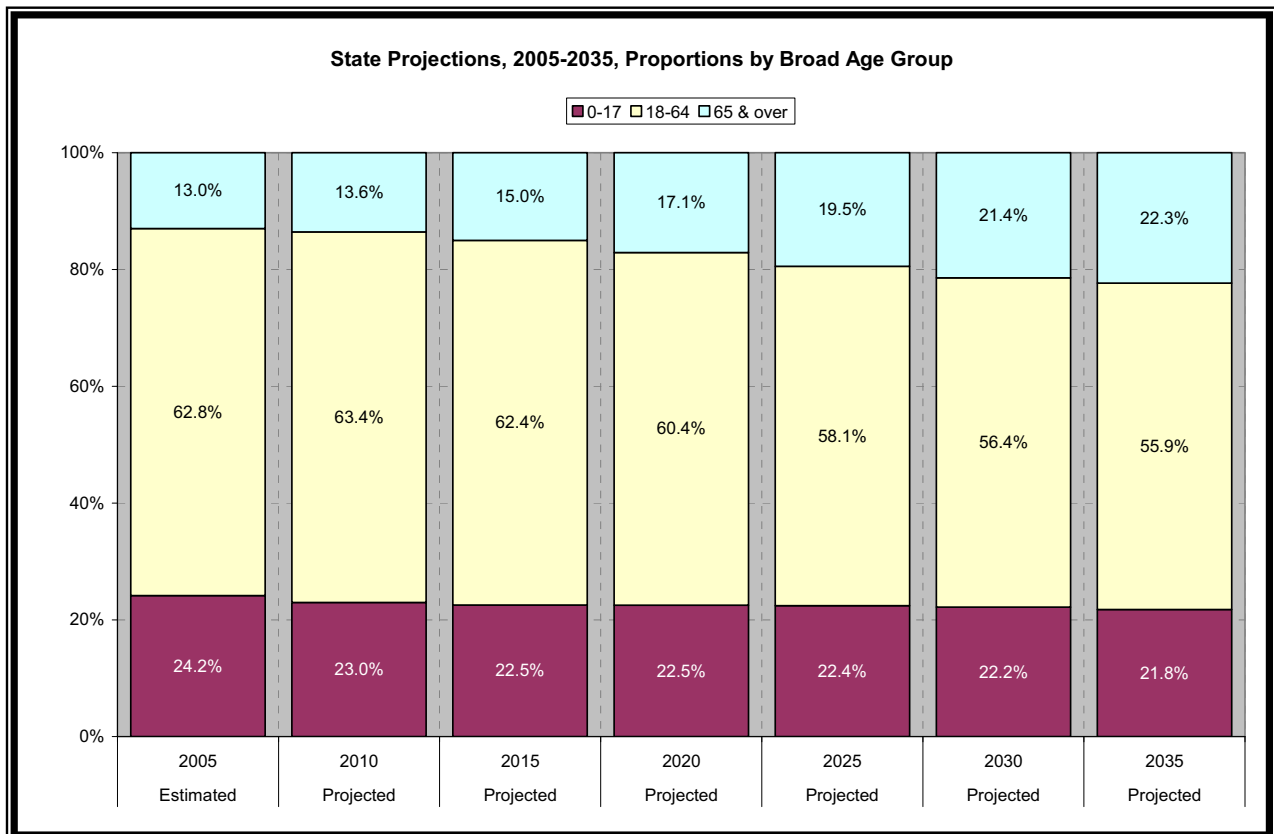
Persons in the age range of 45 to 64 are projected to increase significantly from 1,190,000 in 2000 to 1,638,000 in 2015, and decrease thereafter to 1,572,000 by 2035. Their number in 2035 is expected to be 32.1 percent more than at the time of the 2000 Census.

Persons 18 through 64 years old are projected to peak in 2015 at 3.70 million and then decline slightly to 3.63 million in 2030. Wisconsin's working age population will likely still be more than 342,000 above Census 2000. This age group constituted 61.4 percent of the state's population in 2000; their share is projected to drop to 56.7 percent in 2030.

The aging of Wisconsin's population is evident in the remarkable growth of the elderly population. Elderly people, defined as those aged 65 and over, are projected to increase by 111.5 percent by 2035. The bulk of this age group's growth will occur after 2010 when the Baby Boom's vanguard will enter the conventional retirement years. Their number in 2035 is projected to be 1,486,000, compared to their tally of 703,000 in 2000. Our oldest senior citizens aged 85 and over, are expected to increase 133 percent over the same period from 97,000 to 223,000. Finally, almost 1,000 centenarians were Wisconsin residents at the beginning of this century. Their number is likely to be more than five times higher, at 5,700, by 2035.

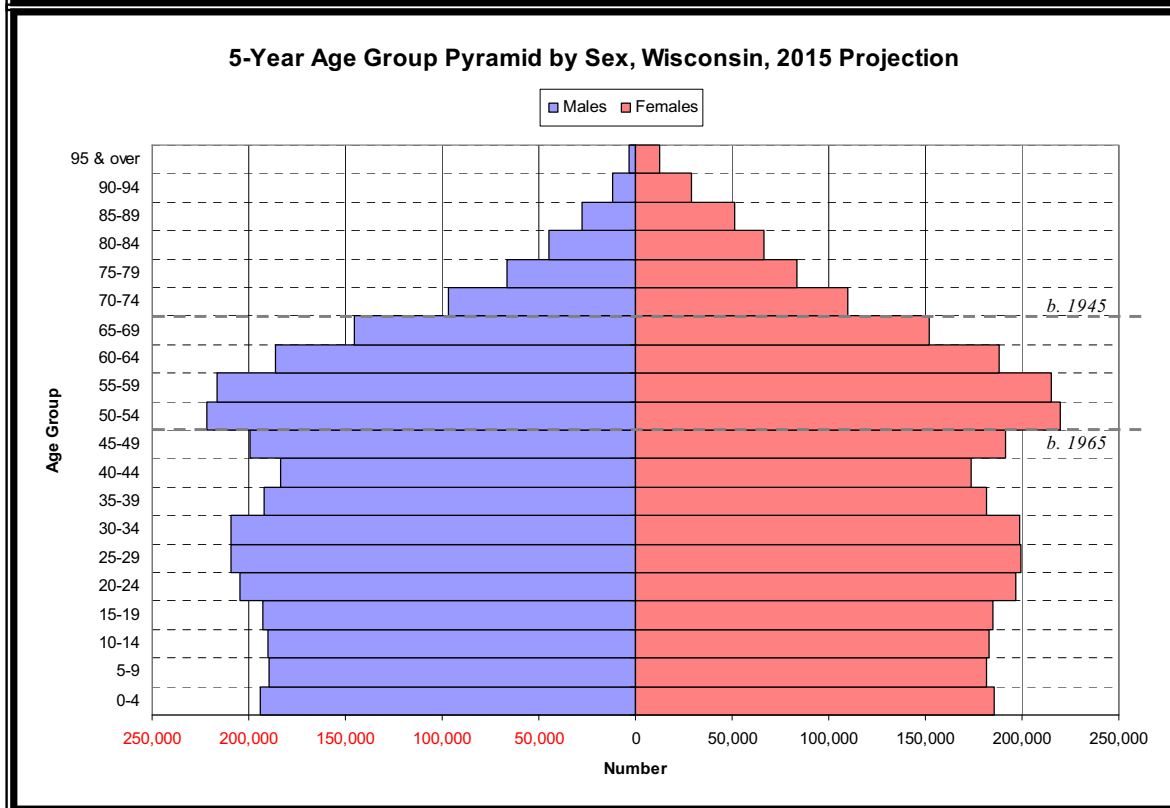
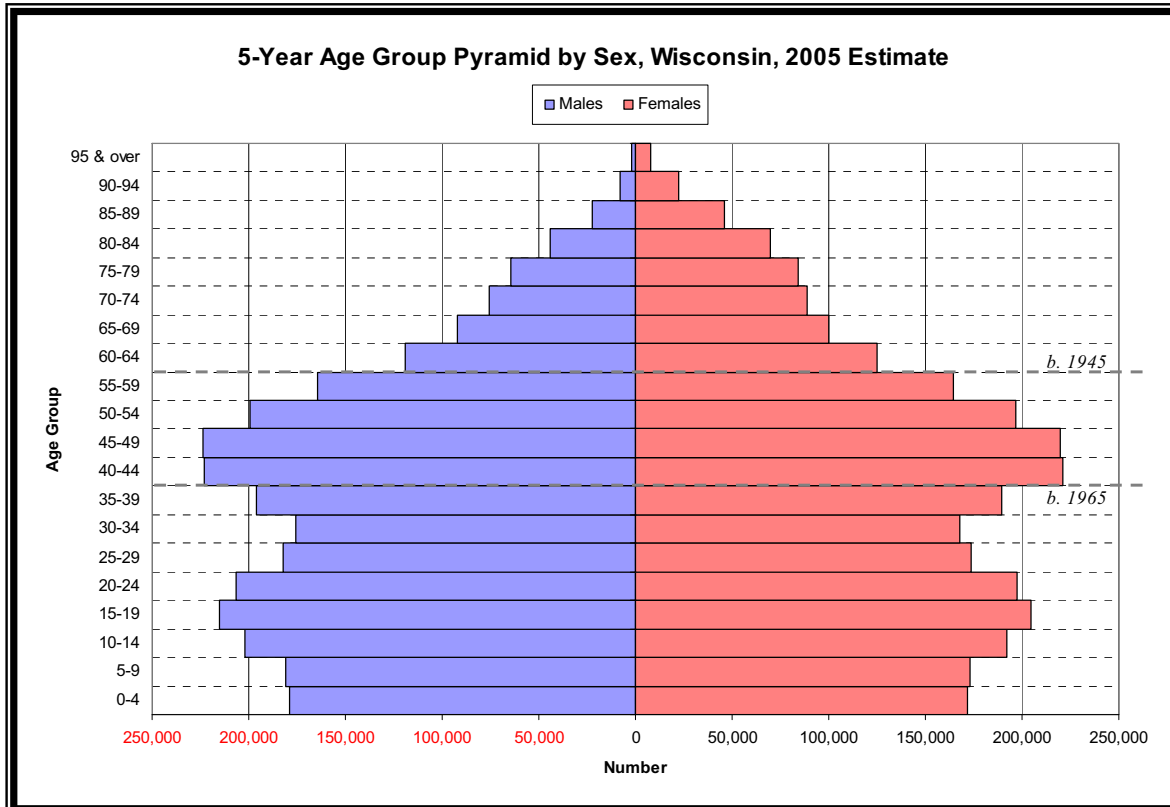
Figure 4 indicates how the proportions of 0-17, 18-64, and 65 and over populations are projected to shift over the 35-year projection period. The elderly population, slightly more than one-half the size of the young population in 2000, will exceed it by 2035.

Figure 4: Wisconsin Projected Population by Broad Age Group, 2000-2035



The changing age composition of the state's population is the hallmark of these projections. The age pyramids that follow underscore this feature. The Baby Boom bulge, delineated on each graph by dashed lines labeled "born 1945" and "born 1965," is clearly visible as we compare the various age pyramids. Over time, as mortality increases, the size of these five-year cohorts will be reduced until they are no longer the largest in the state's population.

Figure 5: Wisconsin Age Pyramids by Sex , 2005-2035



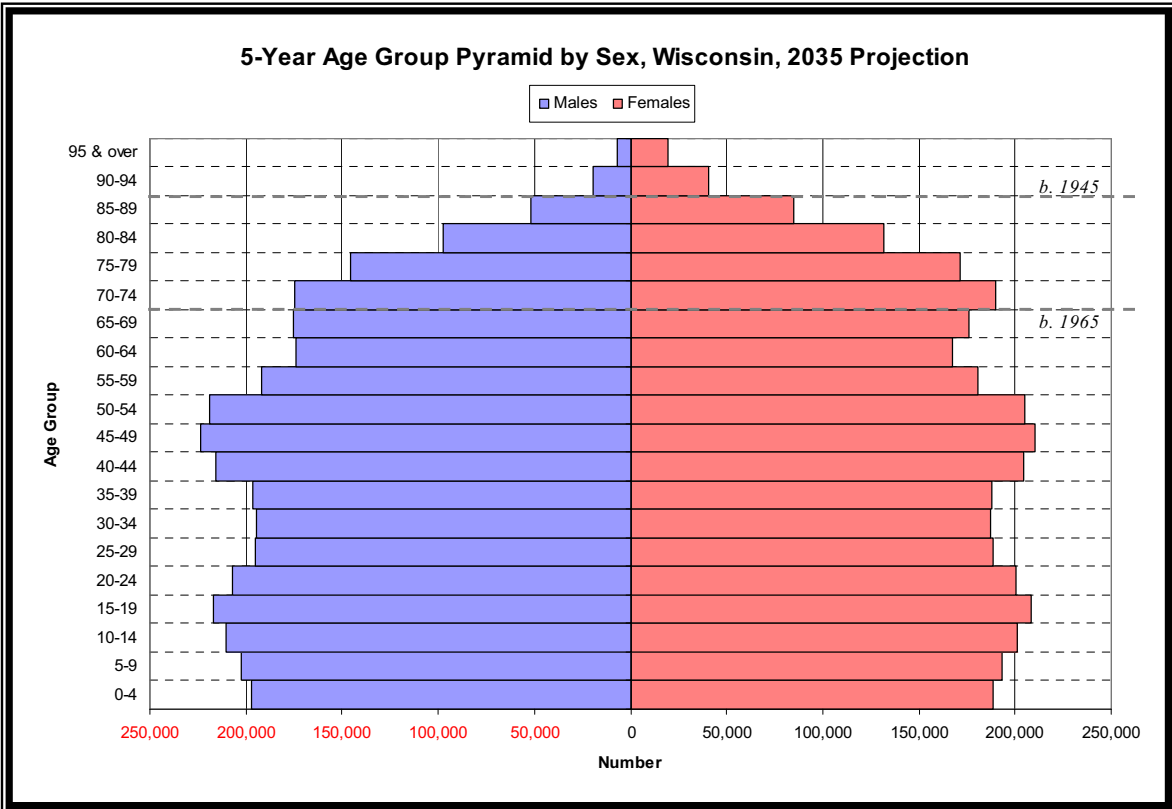
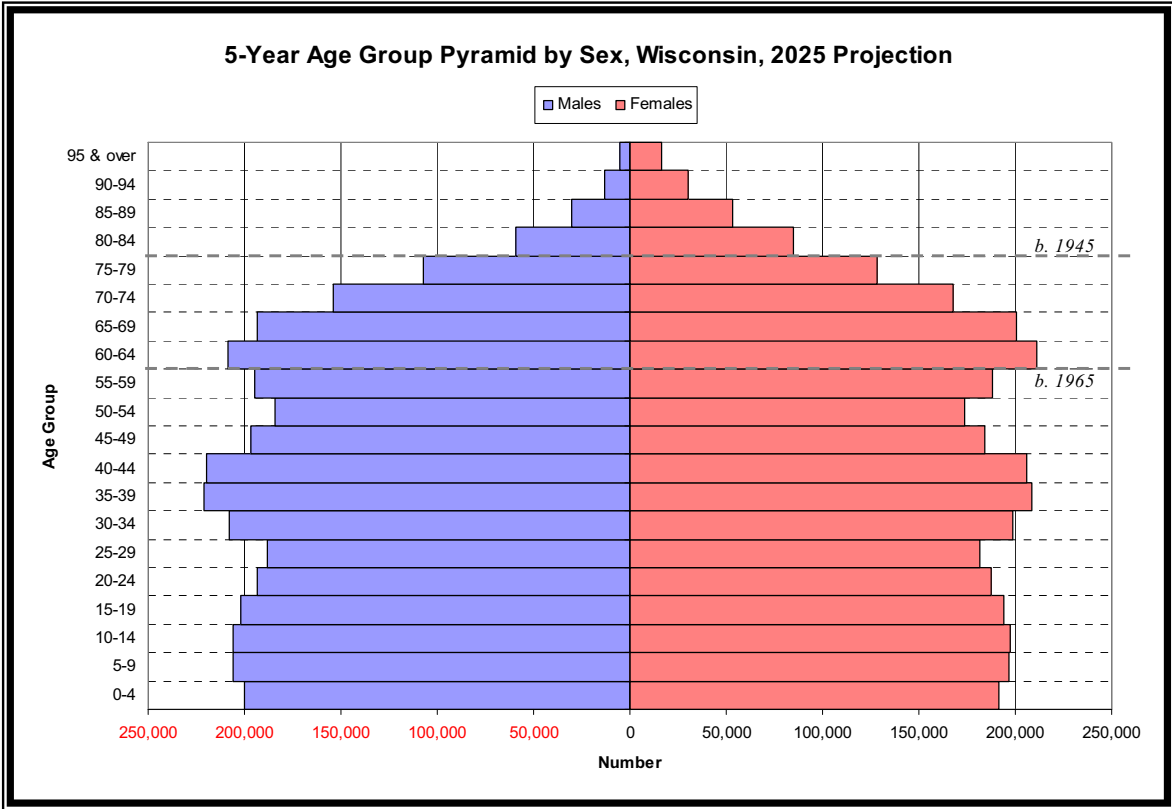


Table 5: Wisconsin Population Projections by 5-Year Age Groups, All Persons

Age Group	2000 Census	2005 Estimate	2010 Proj.	2015 Proj.	2020 Proj.	2025 Proj.	2030 Proj.	2035 Proj.	35-year Change
0-4	342,340	351,000	359,300	379,310	391,630	391,670	387,040	386,190	12.8%
5-9	379,484	354,510	359,680	370,670	390,890	402,390	401,320	395,640	4.3%
10-14	403,074	394,570	364,760	372,590	383,520	403,190	413,880	411,790	2.2%
15-19	407,195	419,540	406,400	378,250	385,900	395,960	415,070	425,100	4.4%
20-24	357,292	404,230	411,960	401,800	373,930	380,600	389,480	407,280	14.0%
25-29	333,913	355,810	398,290	408,630	398,530	370,090	375,720	383,560	14.9%
30-34	372,255	343,490	362,150	408,150	418,380	406,880	376,810	381,680	2.5%
35-39	435,264	385,020	351,590	373,240	420,220	429,460	416,490	384,890	-11.6%
40-44	440,292	443,630	388,610	357,360	379,210	425,910	434,220	420,220	-4.6%
45-49	397,699	443,410	442,900	390,760	359,350	380,580	426,510	433,940	9.1%
50-54	334,613	395,950	439,820	441,260	389,420	357,800	378,590	423,960	26.7%
55-59	252,742	328,730	387,850	431,900	433,670	382,910	351,960	372,530	47.4%
60-64	204,999	243,750	316,250	374,330	417,540	419,860	371,190	341,620	66.6%
65-69	182,119	192,450	228,190	296,860	352,260	393,850	397,010	351,760	93.1%
70-74	173,188	164,580	173,660	206,760	269,950	321,400	360,560	364,710	110.6%
75-79	146,675	148,330	141,160	149,770	179,420	235,370	281,560	317,430	116.4%
80-84	104,946	113,740	115,820	111,320	119,210	144,000	190,170	229,120	118.3%
85-89	62,304	67,950	76,270	79,080	77,330	83,930	102,590	136,890	119.7%
90-94	25,590	29,830	35,320	40,800	43,400	43,470	48,070	59,780	133.6%
95-99	6,737	8,000	10,530	12,980	15,600	17,170	17,740	20,140	198.9%
100 & over	994	1,400	1,860	2,600	3,450	4,410	5,200	5,740	477.5%
Totals	5,363,715	5,589,920	5,772,370	5,988,420	6,202,810	6,390,900	6,541,180	6,653,970	24.1%

Table 6: Wisconsin Population Projections by Broad Age Groups, All Males

Age Group	2000 Census	2005 Estimate	2010 Proj.	2015 Proj.	2020 Proj.	2025 Proj.	2030 Proj.	2035 Proj.	35-year Change
0-4	175,041	179,120	183,630	193,910	200,210	200,230	197,880	197,450	12.8%
5-17	526,664	512,810	494,690	495,420	513,930	533,150	543,850	542,880	3.1%
18-24	265,664	292,570	293,380	281,890	268,590	273,780	282,460	293,370	10.4%
25-44	797,529	776,120	767,600	793,950	829,780	837,120	820,300	801,890	0.5%
45-64	592,653	706,170	795,370	823,800	808,200	783,650	783,500	808,370	36.4%
65-84	264,259	275,780	298,710	353,000	429,950	513,150	576,410	593,920	124.7%
85 & over	27,251	31,810	38,150	42,960	44,800	48,850	58,480	77,700	185.1%
0-17	701,705	691,930	678,320	689,330	714,140	733,380	741,730	740,330	5.5%
18-64	1,655,846	1,774,860	1,856,350	1,899,640	1,906,570	1,894,550	1,886,260	1,903,630	15.0%
65 & over	291,510	307,590	336,860	395,960	474,750	562,000	634,890	671,620	130.4%
Totals	2,649,061	2,774,380	2,871,530	2,984,930	3,095,460	3,189,930	3,262,880	3,315,580	25.2%

Table 7: Wisconsin Population Projections by Broad Age Groups, All Females

Age Group	2000 Census	2005 Estimate	2010 Proj.	2015 Proj.	2020 Proj.	2025 Proj.	2030 Proj.	2035 Proj.	35-year Change
0-4	167,299	171,880	175,670	185,400	191,420	191,440	189,160	188,740	12.8%
5-17	499,752	487,520	473,130	474,360	491,580	509,550	519,920	519,130	3.9%
18-24	254,965	279,950	281,600	271,640	260,140	265,660	273,520	284,430	11.6%
25-44	784,195	751,830	733,040	753,430	786,560	795,220	782,940	768,460	-2.0%
45-64	597,400	705,670	791,450	814,450	791,780	757,500	744,750	763,680	27.8%
65-84	342,669	343,320	360,120	411,710	490,890	581,470	652,890	669,100	95.3%
85 & over	68,374	75,370	85,830	92,500	94,980	100,130	115,120	144,850	111.8%
0-17	667,051	659,400	648,800	659,760	683,000	700,990	709,080	707,870	6.1%
18-64	1,636,560	1,737,450	1,806,090	1,839,520	1,838,480	1,818,380	1,801,210	1,816,570	11.0%
65 & over	411,043	418,690	445,950	504,210	585,870	681,600	768,010	813,950	98.0%
Totals	2,714,654	2,815,540	2,900,840	3,003,490	3,107,350	3,200,970	3,278,300	3,338,390	23.0%

Households

The number of Wisconsin households is projected to increase from 2.08 million in 2000 to 2.80 million in 2035, a numeric change of 717,000 and percentage change of 33 percent.

This increase in households is predicted to be faster than the percent rise in population (24 percent) due to an increase in single-person households and an aging population. Households headed by older people tend to have smaller sizes than younger householders, and as the proportion of older residents increases, the average size decreases. It is projected that the mean Wisconsin household size will decrease from 2.50 in 2000 to 2.29 in 2035.

Table 5 shows the projected number of households, household population and average household sizes at five-year intervals from 2000 through 2035:²

Table 8: Wisconsin Households, Household Populations and Average Household Sizes, 2000-2035

	Census 2000	Estimate 2005	Projected					
			2010	2015	2020	2025	2030	2035
Number of Households	2,084,556	2,208,571	2,322,062	2,442,354	2,557,504	2,654,905	2,738,477	2,801,146
Household Population	5,207,757	5,429,170	5,596,784	5,809,326	6,018,196	6,195,460	6,328,716	6,419,972
Average Household Size	2.50	2.46	2.41	2.38	2.35	2.33	2.31	2.29

The typical Wisconsin householder (the person in whose name the housing unit is owned or rented) will become older during the next 30 years. For example, 448,000 persons age 65 years and over were householders in 2000; in 2035, that figure is projected to increase by 111 percent to 945,000. The proportion of all Wisconsin households headed by elderly residents is projected to rise from just more than one-fifth of all households to more than one-third. Among the very elderly, ages 85 and over, the increase in households will be more than 130 percent.

Table 6 lists the numeric projections by age of householder:

Table 9: Wisconsin Household by Age Group, 2000-2035

Age of Householder	Census 2000	Estimate 2005	Projected					
			2010	2015	2020	2025	2030	2035
Age 15 to 24 years	121,093	129,303	128,471	122,680	119,502	122,538	126,976	131,388
Age 25 to 34 years	349,975	346,719	375,901	403,058	403,194	383,359	371,192	377,602
Age 35 to 44 years	477,158	451,864	403,318	398,264	435,403	465,452	463,005	438,101
Age 45 to 54 years	419,359	480,890	504,652	475,714	428,428	422,683	460,420	490,048
Age 55 to 64 years	268,480	336,335	413,038	472,673	498,763	470,453	424,129	419,049
Age 65 to 74 years	223,019	224,305	252,032	315,899	390,212	448,393	474,618	448,648
Age 75 to 84 years	170,189	177,200	173,233	176,167	201,761	256,615	318,716	368,841
Age 85 years and over	55,283	61,955	71,417	77,899	80,241	85,412	99,421	127,469
Total Households	2,084,556	2,208,571	2,322,062	2,442,354	2,557,504	2,654,905	2,738,477	2,801,146

² A household includes all persons who live in a housing unit such as homes, apartments or even single rooms intended as separate living quarters. Households do not include group quarters such as dormitories, prisons, nursing homes, halfway houses or similar facilities containing ten or more unrelated people.



Chapter 2

County-Level Population and Household Projections, 2000-2035

Patterns of Growth

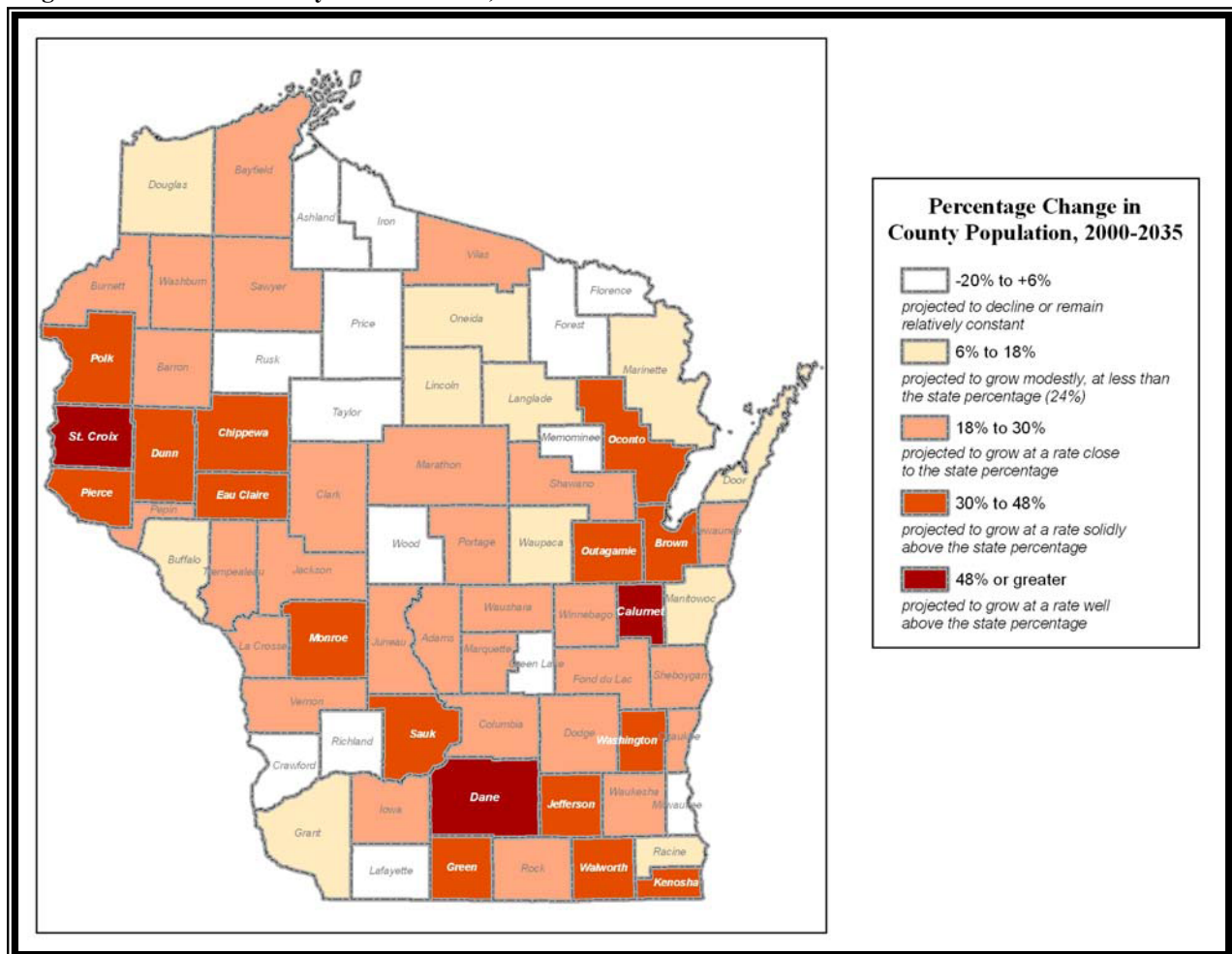
Growth is projected to occur generally throughout Wisconsin through 2035. Seventy of the state's 72 counties are expected to experience population growth during the next three decades. Thirty-four counties are projected to grow faster than the state growth rate of 24.1 percent from 2000 to 2035.

Counties within or adjacent to major metropolitan areas are predicted to experience higher rates of population growth. High growth areas will tend to benefit from migrants drawn to the large economic engines of southeast Wisconsin, Madison, the Fox Valley, the Twin Cities and Chicago.

Smaller, non-metropolitan counties will experience the lowest growth rates. These counties tend to attract fewer migrants and have low (or even negative) natural increase.

Figure 6 illustrates county growth patterns throughout Wisconsin during the period of 2000 to 2035.

Figure 6: Wisconsin County Growth Rates, 2000-2035



Fastest Growing and Largest Counties

St. Croix County, adjoining the Minnesota counties in the Minneapolis-St. Paul metropolitan area, is projected to grow nearly 135 percent during the period, easily outpacing the second fastest growing county, Calumet, at 75 percent. With a gain of 85,000 from its 2000 Census count of 63,155, St. Croix County is projected to move from the 23rd to the 12th most populous county in the state.

Calumet County, which has recently absorbed much of the suburban growth near Appleton, is projected to gain nearly 31,000 new residents, on a base of 40,631, from 2000 to 2035. This county is predicted to move from the 35th to 26th in population size.

Dane County is projected to gain 227,000 residents (53 percent) during the 35-year period, the largest numeric increase among all counties. Having a Census 2000 count of 426,526, Dane County is expected to exceed 500,000 residents around 2012 and pass 600,000 residents about 15 years later in 2027.

Milwaukee County's population, which declined by 114,000 from 1970 to 2000, is predicted to continue losing population through 2035, reaching 863,000 after losing about 77,000 more people. However, the entire four-county metropolitan area (which includes Ozaukee, Washington and Waukesha counties) is projected to gain nearly 90,000 people across the 35-year period.

Of the state's ten largest counties at 2000, the largest four—Milwaukee, Dane, Brown and Waukesha—are projected to maintain their rank order. Outagamie County is projected to pass Racine County in population in the 2020-2025 period to become the fifth largest county, and Kenosha County—with continued strong suburban growth from the Illinois counties of the Chicago metropolitan area—will move ahead of Winnebago and Rock counties to become the state's 7th largest. Finally, Washington County's population is expected to exceed Marathon County's in about 2020 to become the 10th largest county.

Table 10 lists the state's 10 largest counties at 2000 and 2035 and projected numeric and percentage change over the time period. Table 11 shows the 10 counties with greatest percentage change from 2000 to 2035.

Table 10: Ten Counties with Largest Projected Populations at 2035

County	Census 2000	Projection 2035	Numeric Change	Percent Change	Population Rank, 2000	Population Rank, 2035
MILWAUKEE	940,164	863,208	-76,956	-8%	1	1
DANE	426,526	653,876	227,350	53%	2	2
WAUKESHA	360,767	454,467	93,700	26%	3	3
BROWN	226,658	317,045	90,387	40%	4	4
OUTAGAMIE	161,091	228,398	67,307	42%	6	5
RACINE	188,831	215,697	26,866	14%	5	6
KENOSHA	149,577	213,077	63,500	42%	9	7
WINNEBAGO	156,763	203,258	46,495	30%	7	8
ROCK	152,307	183,361	31,054	20%	8	9
WASHINGTON	117,496	169,159	51,663	44%	11	10
MARATHON	125,834	162,078	36,244	29%	10	11

Table 11: Ten Counties with Greatest Percent Change in Population, 2000-2035

County	Census 2000	Projection 2035	Number Change	Percentage Change
SAINT CROIX	63,155	148,043	84,888	134%
CALUMET	40,631	71,227	30,596	75%
DANE	426,526	653,876	227,350	53%
PIERCE	36,804	54,094	17,290	47%
POLK	41,319	60,640	19,321	47%
SAUK	55,225	80,563	25,338	46%
WALWORTH	92,013	132,941	40,928	45%
WASHINGTON	117,496	169,159	51,663	44%
OCONTO	35,652	51,037	15,385	43%
KENOSHA	149,577	213,077	63,500	42%

Slowest Growing and Smallest Counties

Menominee County, Wisconsin's smallest at 2000, is projected to remain the smallest through 2035, and will also lose about 20 percent of its population.

Wisconsin's ten smallest counties are located at a distance from most metropolitan centers. In all cases but one (Pepin County), population growth is expected to be quite minimal. In addition, most of these counties' gains will be marked by increases in retiree populations rather than younger cohorts.

Table 12 lists the state's 10 smallest counties at 2035 and projected numeric and percentage change over the time period. Table 13 shows the 10 counties with the least percentage change from 2000 to 2035.

Table 12: Ten Counties with Smallest Projected Populations at 2035

County	Census 2000	Projection 2035	Numeric Change	Percent Change	Population Rank, 2000	Population Rank, 2035
ASHLAND	16,866	17,374	508	3%	58	63
LAFAYETTE	16,137	16,682	545	3%	60	64
PRICE	15,822	15,948	126	1%	62	65
RUSK	15,347	15,350	3	0%	64	66
BUFFALO	13,804	15,137	1,333	10%	67	67
FOREST	10,024	10,135	111	1%	68	68
PEPIN	7,213	9,086	1,873	26%	69	69
IRON	6,861	6,914	53	1%	70	70
FLORENCE	5,088	5,243	155	3%	71	71
MENOMINEE	4,562	3,647	-915	-20%	72	72

Table 13: Ten Counties with Least Percentage Change in Population, 2000-2035

County	Census 2000	Projection 2035	Numeric Change	Percent Change
LAFAYETTE	16,137	16,682	545	3%
FLORENCE	5,088	5,243	155	3%
ASHLAND	16,866	17,374	508	3%
TAYLOR	19,680	20,247	567	3%
FOREST	10,024	10,135	111	1%
PRICE	15,822	15,948	126	1%
IRON	6,861	6,914	53	1%
RUSK	15,347	15,350	3	0%
MILWAUKEE	940,164	863,208	-76,956	-8%
MENOMINEE	4,562	3,647	-915	-20%

Age Distribution: Counties' 65 and Over Population

An indicative illustration of the changing age distribution in Wisconsin's counties over the 35-year projection period is the growth in each county's proportion of its population at age 65 and over.

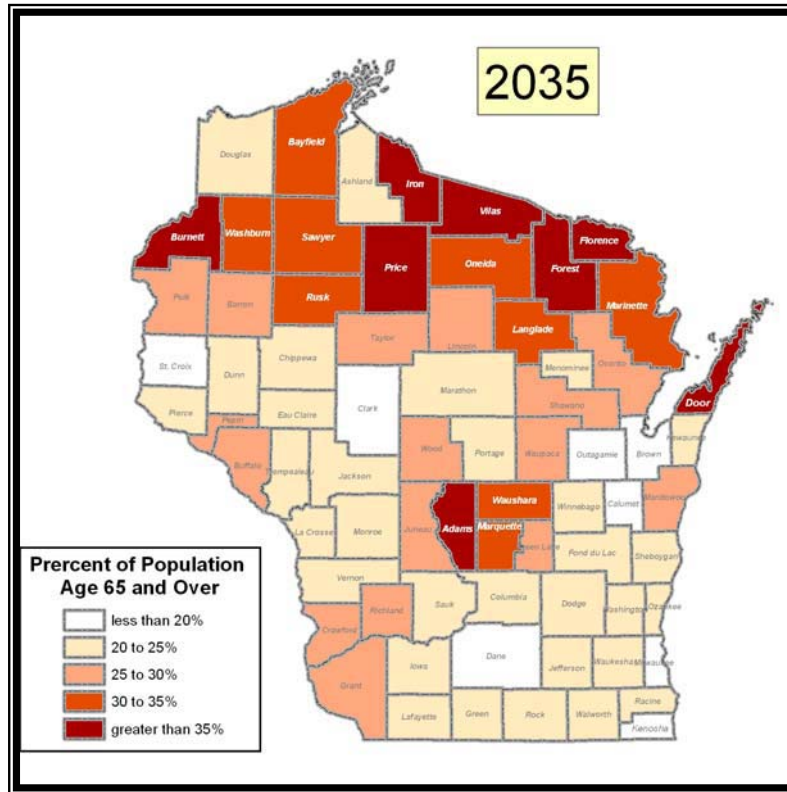
As cited in Chapter 1, the proportion of Wisconsin's population at 65 and older is projected to rise from 13 percent to 22 percent. Not surprisingly, all counties' percentages of the elderly are expected to rise. However, the projections indicate a pronounced differentiation across counties. Table 14 indicates the number of counties with elderly population within the listed percentage limits, as enumerated in 2000 and as projected in 2035. Note that no county had more than 25 percent of its population over age 65 in 2000, by 2035, 33 counties are projected to have more than one out of four residents in the elderly category. Furthermore, all counties in 2035 are expected to have 15 percent or higher elderly populations at 2035. The maximum value at 2035 will be in Door County, at more than 44 percent.

Table 14: Population Ages 65 and Over as Percent of Total Population, Counties, 2000 and 2035

Elderly as Percent of Total Pop.	Number of Counties, 2000	Number of Counties, 2035
less than 10%	4	0
10-15%	29	0
15-20%	36	8
20-25%	3	31
25-30%	0	16
30-35%	0	9
greater than 35%	0	8

The map in Figure 7 illustrates the proportion of population age 65 and over as projected at 2035. The majority of high-percentage elderly population counties will be in northern Wisconsin and other recreational counties (such as Adams, Marquette and Waushara in the center of the state) that have large retiree populations.

Figure 7: Proportion of County Populations Age 65 and Older at 2035



Average Household Size for Counties

Average household size is projected to decline in all of Wisconsin’s counties between 2000 and 2035. The average decline will be -0.21 persons, with Menominee County experiencing the greatest decline and Clark County the least.

In 2000, Menominee County had the highest average household size at 3.35 persons per household. Because of declining population and a remaining populace dominated by elderly households, its average size is projected to fall by more than 1 person to 2.31. Clark County, with the second highest fertility rate of all counties and a comparatively low proportion of elderly households, is projected to maintain its relatively large household size and have the highest value at 2035.

Suburban counties such as Calumet, St. Croix and Washington—predominated by families with children—had high household sizes in 2000 and are projected to “hold” their average household sizes relatively well. On the other hand, recreational counties, which contain a disproportionate number of resident retirees in one- and two-person households, are among those with the smallest average household sizes. This pattern is expected to continue through 2035. Four counties—Adams, Iron, Florence and Door—are projected to have average household sizes below 2.00 in 2035.

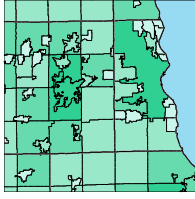
Table 15: Counties with Largest Household Sizes, 2000 and 2035

County	2000 Census	County	2035 Projection
Menominee	3.35	Clark	2.67
Clark	2.73	Calumet	2.55
Calumet	2.70	Pierce	2.46
St. Croix	2.66	St. Croix	2.46
Washington	2.65	Waukesha	2.45

Table 16: Counties with Smallest Household Sizes, 2000 and 2035

County	2000 Census
Door	2.33
Burnett	2.33
Adams	2.33
Vilas	2.29
Iron	2.19

County	2035 Projection
Forest	2.00
Adams	1.96
Iron	1.94
Florence	1.93
Door	1.92



Chapter 3

Municipal-Level Population and Household Projections, 2000-2030

Between 2000 and 2030, it is projected that Wisconsin will add over 1,177,507 residents, an increase of nearly 22 percent.³ Wisconsin is expected to add nearly 654,000 households during this period. The distribution of population and households will vary by region and community type.

Population Change in Cities, Villages and Towns

In 2000, the population of Wisconsin's cities totaled 3,011,000. In 2030, the cities' populations are projected to be 3,464,047 in the aggregate, an increase of 15 percent. The population of towns is projected to increase by about the same number as cities, but with a smaller starting base, this growth will be 29 percent. Villages are expected to grow the fastest in percentage terms, an increase of 34.4 percent. Table 17 lists the current and projected totals and numeric and percentage change.

Table 17: Projected Change in the Total Population by Community Type: 2000 and 2030

Community Type	2000 Census	2030 Projection	Numeric Change	Percentage Change
Cities	3,011,200	3,464,047	452,847	15.0%
Towns	1,576,716	2,034,127	457,411	29.0%
Villages	775,799	1,043,048	267,249	34.4%
Total	5,363,715	6,541,222	1,177,507	22.0%

Concurrent with different growth rates among the community types is a slight overall redistribution of population among them. In 2000, cities made up 56.1 percent of the state's total population, towns were 29.4 percent, and villages constituted 14.5 percent. By 2030, the cities' share is expected to decline to 53 percent while towns and villages are expected to increase their shares to 31 and 16 percent respectively (see Table 18). Taken together, the incorporated places' (cities and villages) share of the state's total population is expected to decline from 71 percent in 2000 to 69 percent by 2030.

Table 18: Proportion of the Total Population by Type of Community: 2000 and 2030

Community Type	2000 Census	2030 Projection	Percentage Change
Cities	56.1%	53.0%	-5.7%
Towns	29.4%	31.1%	5.8%
Villages	14.5%	15.9%	10.2%

Population Change by Municipality Size

The distribution of projected population change also varies by community size. In both numeric and percentage terms, the greatest growth is projected to occur in municipalities of 1,000 through 50,000. About 80 percent of the state's population growth through 2030 is expected to occur in the 835 municipalities in this size range. More specifically, communities in the 10,000 to 50,000 range will contain one-fourth of the state's increase. Very small municipalities of less than 500 will, on a numeric basis, grow modestly on average.

Table 19 on the next page illustrates various classifications of Wisconsin's municipalities by population size.

³ Because of reliability issues with projecting smaller geographies, Demographic Services limits the municipal projections to a 25-year time horizon (i.e., 2005-2030), rather than the 30-year time horizon for the state and counties.

Table 19: Projected Population Change, 2000 and 2030, by Municipality Size at 2000

Size Range at 2000	Number (N) at 2000	2000 Census	2030 Projection	Numeric Change	Percentage Change	Numeric Change per N
less than 500	394	123,939	136,866	12,927	10.4%	33
500 - 1,000	608	445,339	539,858	94,519	21.2%	155
1,000 - 2,500	522	792,636	1,020,572	227,936	28.8%	437
2,500 - 5,000	161	554,531	734,516	179,985	32.5%	1,118
5,000 - 10,000	85	602,207	841,149	238,942	39.7%	2,811
10,000 - 50,000	67	1,281,465	1,572,894	291,429	22.7%	4,350
more than 50,000	13	1,563,598	1,695,367	131,769	8.4%	10,136

The Five Largest Municipalities

In total, Wisconsin's five largest communities (Milwaukee, Madison, Green Bay, Kenosha and Racine) had 1,080,000 people—one in five state residents—at Census 2000. Milwaukee, which declined 120,000 from 1970 to 2000, is projected to lose approximately 53,000 more residents through the 30-year projection period, a result of continuing out-migration exceeding natural increase. Similarly, Racine, which shrank from 95,000 in 1970 to 82,000 in 2000, will likely decline to 73,000 residents by 2030. Combined with other municipalities growing, Racine's ranking is anticipated to fall from 5th to 10th largest city. The four largest cities will maintain their rank order, with Appleton becoming the fifth largest city by 2030. The share of the state's population for the five largest cities is expected to slip to 17 percent at the end of the projections period.

Table 20: Projected Population of Wisconsin's Largest Cities: 2000 and 2030

Municipality	2000 Census	2030 Projection	Numeric Change	Percentage Change	Rank at 2000	Rank at 2030
Milwaukee	596,974	543,826	-53,148	-8.9%	1	1
Madison	208,054	284,978	76,924	37.0%	2	2
Green Bay	102,767	119,370	16,603	16.2%	3	3
Kenosha	90,352	114,703	24,351	27.0%	4	4
Racine	81,855	72,879	-8,976	-11.0%	5	10
Appleton	70,087	84,683	14,596	20.8%	6	5

Household Growth by Type of Municipality

Between 2000 and 2030, the number of households in Wisconsin is expected to increase by nearly 654,000. In percentage terms, households will increase faster (31 percent) than the total population (22 percent) and household population growth (21.5 percent) because average household *size* should continue to decline.

As with population growth, the change in households is not uniform across the state or by type of municipality. The pattern of growth of households follows population. Through the 2000-2030 period, it is expected that the percentage change in households will be greatest in villages, followed closely by towns and cities a distant third. However, cities—with a much greater numerical base—are expected to show an increase of over 288,000 households during this time, followed by nearly 233,000 in towns and 133,000 in villages (Table 21).

Table 21: Number of Households by Type of Municipality: 2000 and 2030

Municipality Type	Census 2000	2030 Projection	Numeric Change	Percentage Change
Cities	1,203,948	1,492,112	288,164	23.9%
Towns	578,127	811,008	232,881	40.3%
Villages	302,481	435,357	132,876	43.9%
Total	2,084,556	2,738,477	653,921	31.4%

Just as Wisconsin's population will shift between community types, the proportion of households will shift as well. Table 22 shows the projected share of households within Wisconsin's cities will decline by 5.7 percent while towns and villages will increase by 6.8 and 9.6 percentage points respectively. Although such shifts are not large, it does point to the fact that the expected growth in smaller places will outpace the growth in cities.

Table 22: Proportion of the Total Households by Type of Community: 2000 and 2030

Municipality Type	Census 2000 Share	2030 Projection Share	Percentage Change
Cities	57.8%	54.5%	-5.7%
Towns	27.7%	29.6%	6.8%
Villages	14.5%	15.9%	9.6%

Average Household Size by Municipality Type

Household sizes by municipality types showed some variation around the state average of 2.50 at the 2000 Census. Cities generally have a higher proportion of rental units than towns and villages, and multiple-unit rentals have a lower average household size than owner units. Hence, the average household size at 2000 in cities was .10 lower than the state average. Villages were very close to the state average at 2000, only two-hundredths of a person higher. Towns, which generally have higher proportions of single-family and owner-occupied homes than villages and cities, had an average household size .19 above the state average.

As Table 23 below shows, the average household size by each municipality type is projected to decline relatively steadily across the 30-year horizon. The household size in towns should still maintain a higher difference from the state household size, villages on average will remain a few hundredths above the state, and cities will be .09 on average below the state.

Table 23: Average Household Size by Type of Municipality: 2000 and 2030

Type	2000 Census	2005 Estimate	2010 Projection	2015 Projection	2020 Projection	2025 Projection	2030 Projection
Cities	2.40	2.36	2.31	2.28	2.26	2.24	2.22
Towns	2.69	2.65	2.59	2.54	2.51	2.49	2.47
Villages	2.52	2.48	2.44	2.41	2.38	2.36	2.34
STATE	2.50	2.46	2.41	2.38	2.35	2.33	2.31

Distribution of Projected Population Growth in Wisconsin

The map on the next page, Figure 8, illustrates the projected percentage growth for Wisconsin's 1,851 municipalities through 2030. While trying to capture such a large number of geographies in one static graphic is difficult, certain patterns can be discerned.

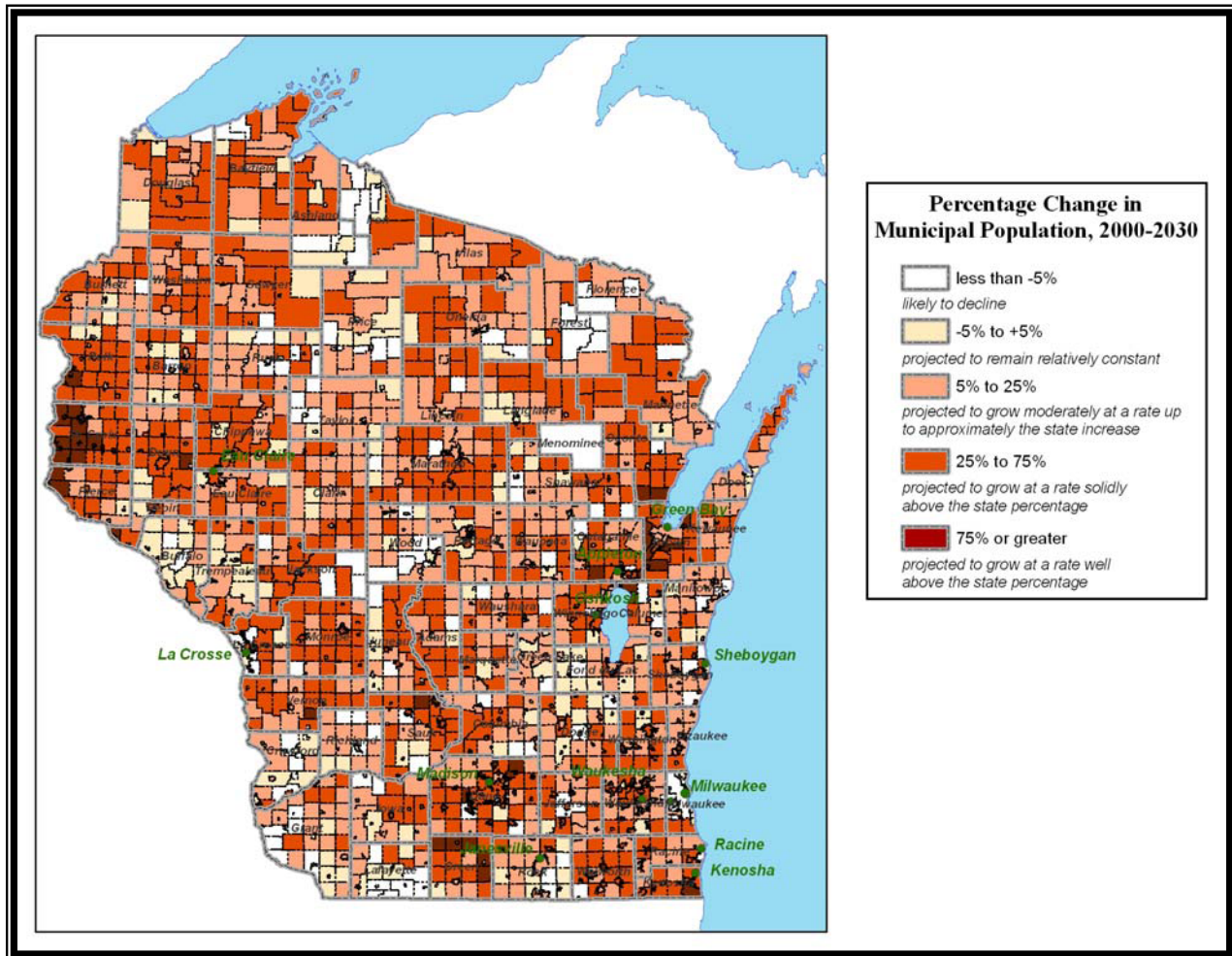
The strongest growth at the municipal level, as at the county level, is projected to be within or proximate to metropolitan areas. Note the clusters of high-growth communities:

- (1) along the western sides of Polk, Saint Croix and Pierce counties, which adjoin the Minnesota portion of the Minneapolis-Saint Paul metropolitan area;
- (2) around the periphery of Madison and in the northern and eastern towns of Green County;
- (3) around Appleton and Green Bay in the Fox River Valley region (Brown, Outagamie and Oconto counties).

Patterns of moderate growth can also be seen around mid- to medium-sized cities: for example, the municipalities around Wausau in Marathon County, Menominee in Dunn County, La Crosse and Eau Claire. In addition, growth should be solid in municipalities within proximity to the Chicago metropolitan area, particularly through Kenosha and southeastern Walworth counties.

Growth in the municipalities within the recreational counties in northern Wisconsin will be checkerboarded, largely dependent on the traditional locations of seasonal housing and second-home development. In certain communities in southwestern and north central areas of the state, places that have large agricultural components to their economies will likely see declines or fairly static population levels.

Figure 8: Projected Percentage Change in Municipal Population, 2000-2030



Appendix

Data Available On-Line

The following Microsoft® Excel files detailing the state, county and municipal projections are available on-line at <http://www.doa.state.wi.us/demographics>. At this home page, look for the link “Population and Household Projections: 2000-2035.”

State and County Age-Sex Population Projections, 2000-2035

MCD and Municipal Population Projections, 2000-2030

State and County Household Projections, 2000-2035

MCD and Municipal Household Projections, 2000-2030

Projections Methodologies Available On-Line

The following methodologies supporting the state, county and municipal projections are available on-line at <http://www.doa.state.wi.us/demographics>, on the “Population and Household Projections” page:

Population Projections for Wisconsin and its Counties by Age and Sex: 2000-2035

Population Projections for Wisconsin Municipalities: 2000-2030

Household Projections for Wisconsin and its Counties by Age: 2000-2035

Household Projections for Wisconsin Municipalities: 2000-2030

Evaluation of the State and County Population Projections Issued in 1993

Following the 1990 Census, the Demographic Services Center prepared several projections series from 1990 forward in time for a twenty- to thirty-year horizon. The release of Census 2000 data has permitted us to evaluate the performance of these projections for the 1990-2000 period.

Projections of births and deaths for the 1990s were extremely accurate. The actual number of births tallied at 689,394 compared to the projected number of 690,095, a percentage difference of 0.1 percent. The actual and projected tallies of deaths were 447,346 and 445,043, respectively, resulting in a percentage difference of -0.5 percent.

The overall error in the total state projection for 1990-2000, -1.4 percent, occurred essentially in projecting the migration component. The actual net gain to Wisconsin through migration amounted to 227,555, compared to the projected gain of 153,307 persons. The migration component is the most elusive in attempting any future population scenario.

Evaluating the projections by age groups, we found that they were off by not more than two percent in most cases. (In the 1993 series, the ultimate age group was 90 and over; hence, the total number of age-sex cohorts was 38. Twenty-five were within two percent.) Our rate of difference for males (-2.1 percent) was higher than that for females (-0.7 percent), largely due to the unexpected in-migration of Hispanics—predominated by males—during the 1990s. The greatest percentage under-projection occurred in the ages 30-54, more so in males than females (again, mostly attributable to Hispanic in-migration). In addition, elderly males were under-projected because of less out-migration than expected and a marked improvement in male survival rates during the decade.

At the county level, several common measures of performance are (1) Mean Algebraic Percent Error (MALPE), a measure of bias (i.e., positive or negative), (2) Mean Absolute Percent Error (MAPE), a measure of accuracy (i.e., how close the projections came to the actual results, disregarding direction) and (3) over-projection versus under-projection. At 2000, our 1993 county projections exhibited these results:

- Mean Algebraic Percent Error (MALPE): -3.6%
- Mean Absolute Percent Error (MAPE): 4.4%
- Counties under-projected: 59; counties over-projected: 13

In other words, the 1993 county projections for the year 2000 were on average 3.6% low and, on average, 4.4% off from the actual Census 2000 counts. The imbalance of counties under-projected and over-projected is actually positive; the under-projections were relatively consistent across geographic sub-areas of the state.

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