

# Highlights of recent population trends for Minnesota, with implications for nature-based outdoor recreation activities and systems

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Prepared by:

Tim Kelly  
Minnesota Department of Natural Resources  
Division of Operations Services

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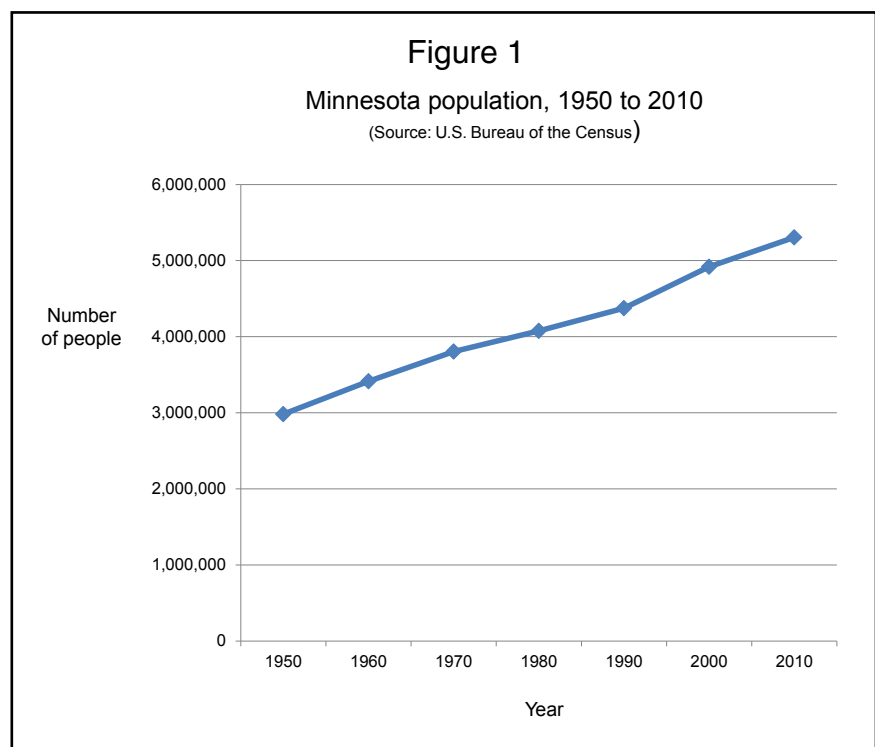
## **Introduction**

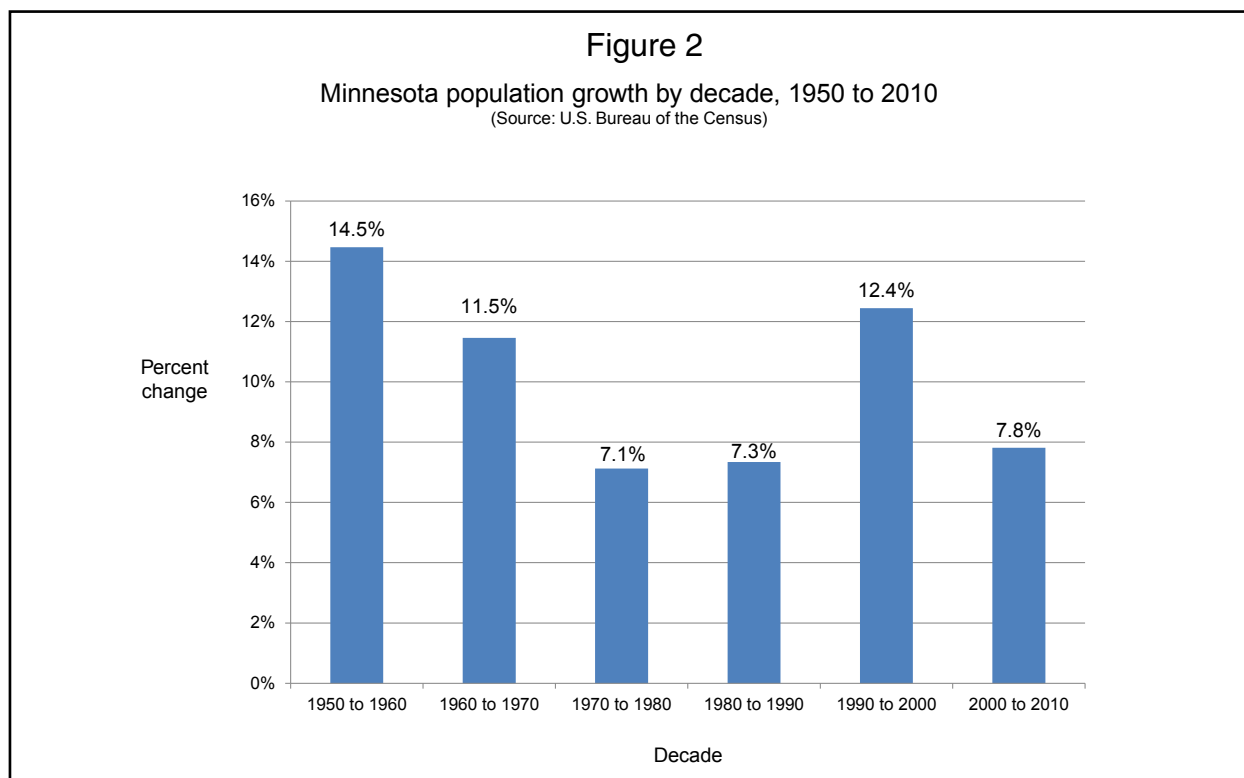
The recent release of 2010 U.S. Census information offers an opportunity to highlight important population trends for Minnesota, and draw implications of those trends for nature-based outdoor recreation, which includes fishing, hunting, boating, and state and regional park and trail use. The content of this report is selective and illustrative. It is not intended to be exhaustive.

## **Population growth, 1950 to 2010**

Minnesota added nearly 400,000 residents since 2000, reaching a population of 5.3 million in 2010 (Figure 1 — Reference 1). Although a sizable addition, the population growth rate since 2000 (7.8%) is substantially below that of the previous decade of the 1990s (Figure 2). It is close to that experienced between 1970 and 1990, after the post-war baby boom subsided.

The decade of the 1990s was associated with a booming American economy, and national population growth rates took a similar roller coaster ride as those in Minnesota. National growth rates, by comparison, have consistently exceeded Minnesota rates both over the last 10 years (9.7% versus 7.8%) and in prior decades, which is the reason for the on-going concern over the loss of one of the state's eight congressional seats. Minnesota had 10 congressional representatives a hundred years ago.





The drop in population growth—when extrapolated—leads to a smaller future, compared with the persistence of the growth coming out of the 1990s. It translates into lower outlooks for population-driven outcomes, including land for urban expansion, near-home parks and trails, and potential participants in nature-based outdoor recreation activities. Updated population projections are expected later this year.

### **Geographic pattern of population change, 2000 to 2010**

Although population growth slowed, the geographic pattern of growth remained largely the same (the correlation coefficient between density growth in the 1990s and 2000s is 0.92, with the exclusion of Ramsey County, which went from high growth to loss between the 1990s and 2000s). The high growth areas continued to focus on the greater Twin Cities Metropolitan Area, and more generally on the area from Rochester to St. Cloud (Figure 3). This new growth will fuel demands for near-home recreation opportunities in these areas.

Most of the new growth occurred in the more densely settled parts of the state (Figure 4). Nearly two-thirds of the growth (65%) was concentrated in the two highest population density classes on Figure 4, and 84 percent occurred in the top three density classes, which together cover nine percent of the state's land area. The less densely settled regions of the state received little growth by comparison.

Figure 3

### County population density change, 2000 to 2010

(Source: U.S. Bureau of the Census, Census 2000 and 2010)

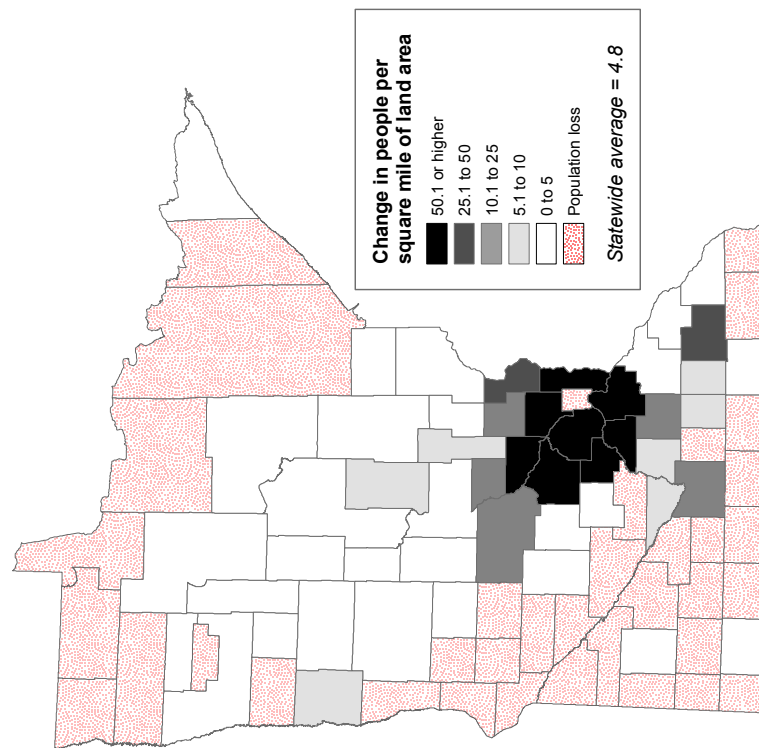
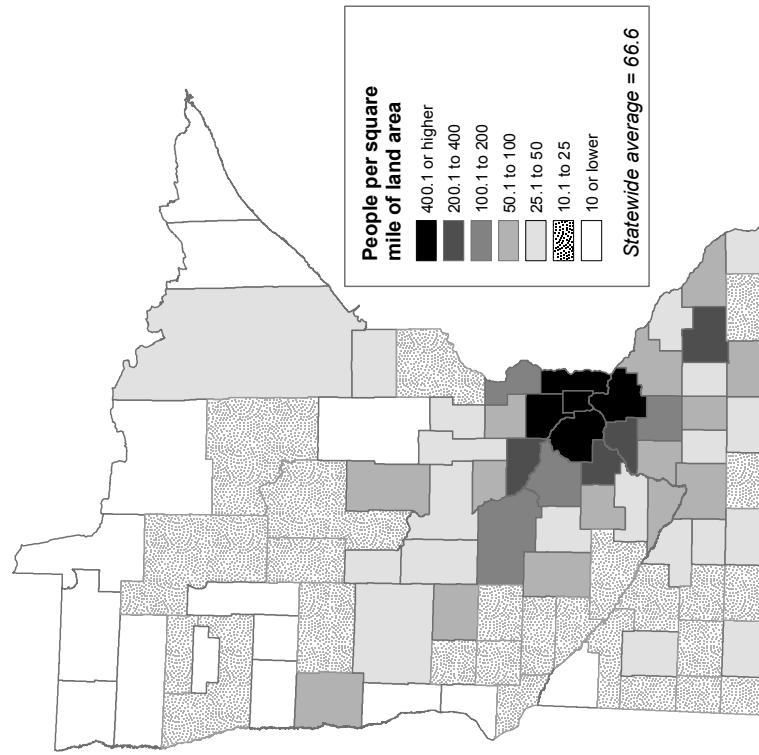


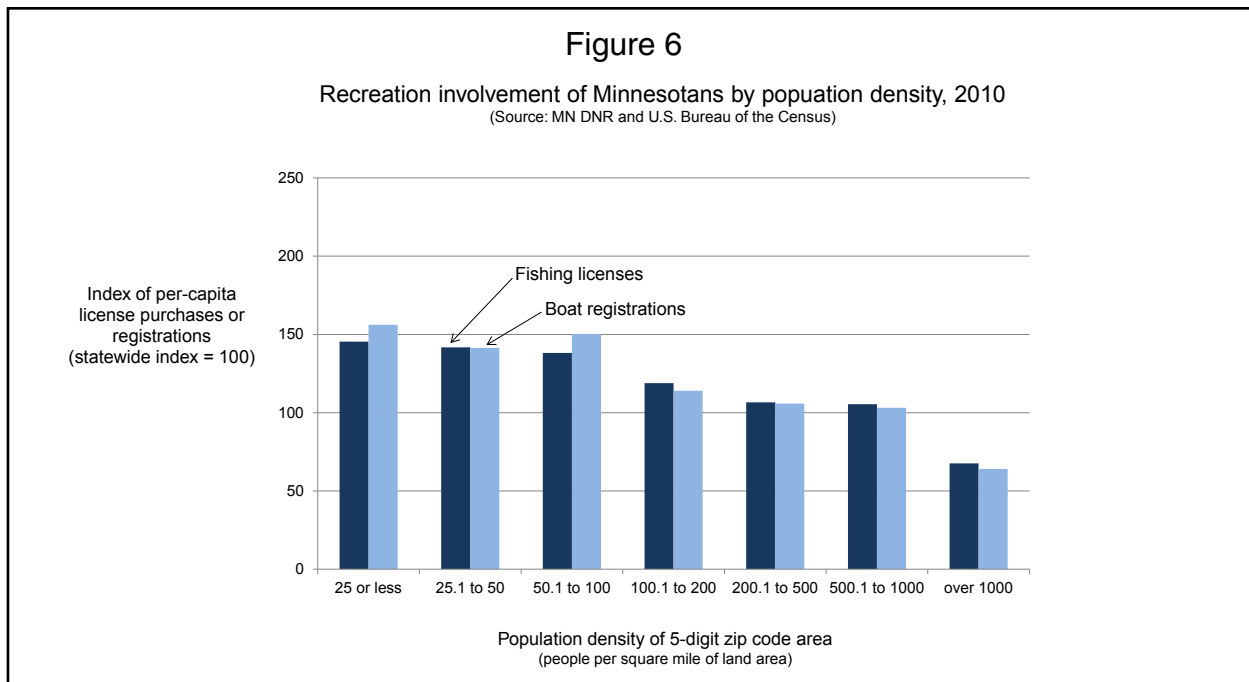
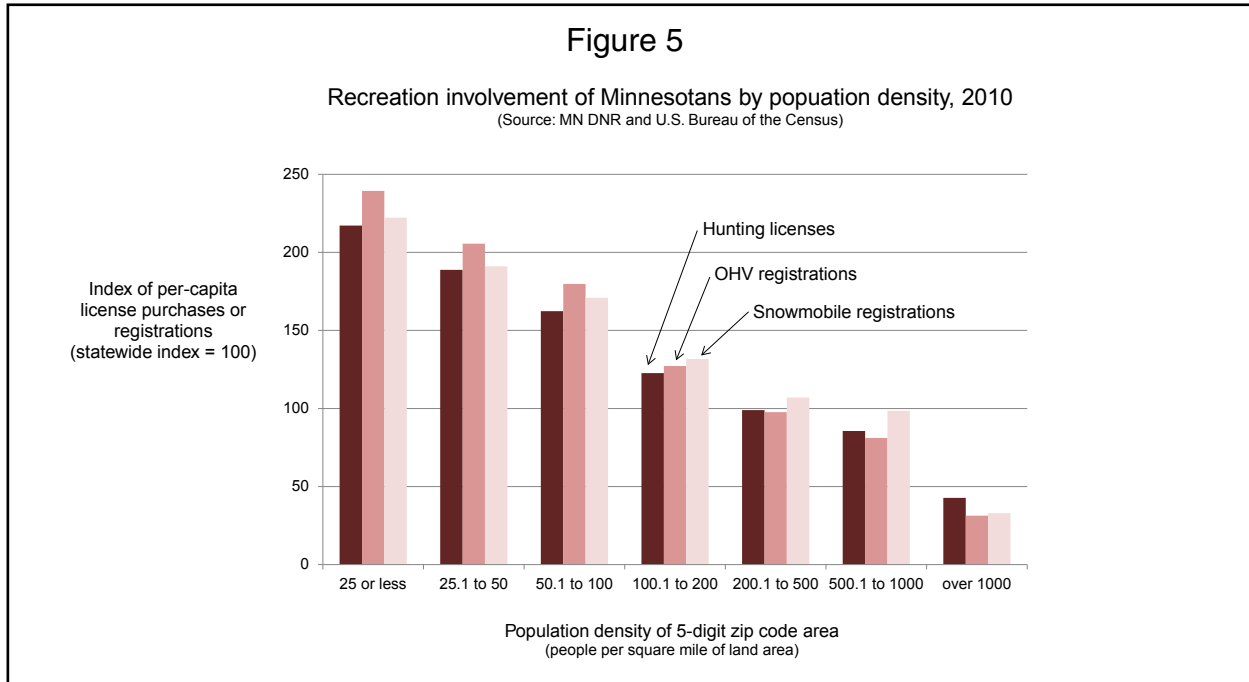
Figure 4

### County population density, 2010

(Source: U.S. Bureau of the Census, Census 2010)

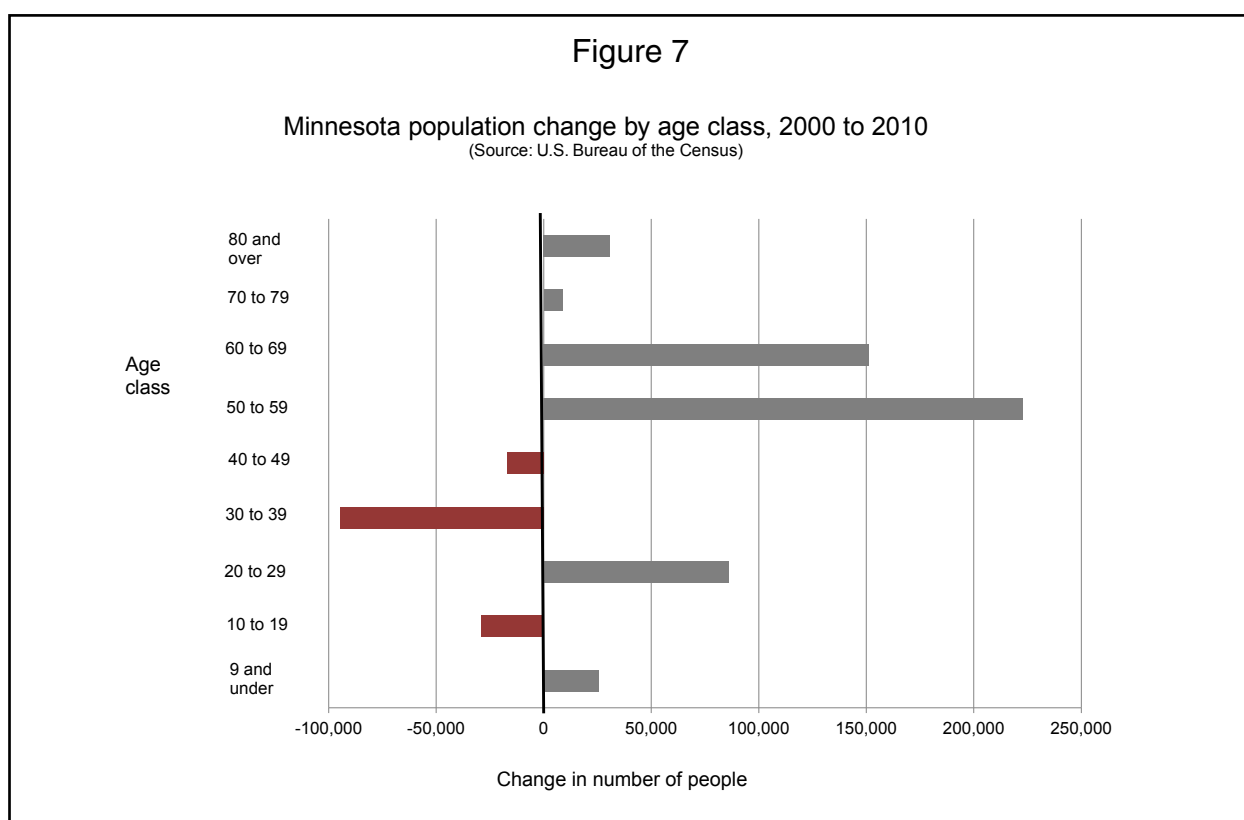


Looking forward, those nature-based recreation activities that draw a higher portion of participants from the less densely settled parts of the state (i.e., rural and small town areas) will have fewer potential new participants than those activities that draw more evenly across the urban-rural spectrum. Examples of the former include hunting, off-highway vehicles (mostly all-terrain vehicles), and snowmobiles (Figure 5 — Reference 2). Fishing and boating are good examples of the latter (Figure 6).

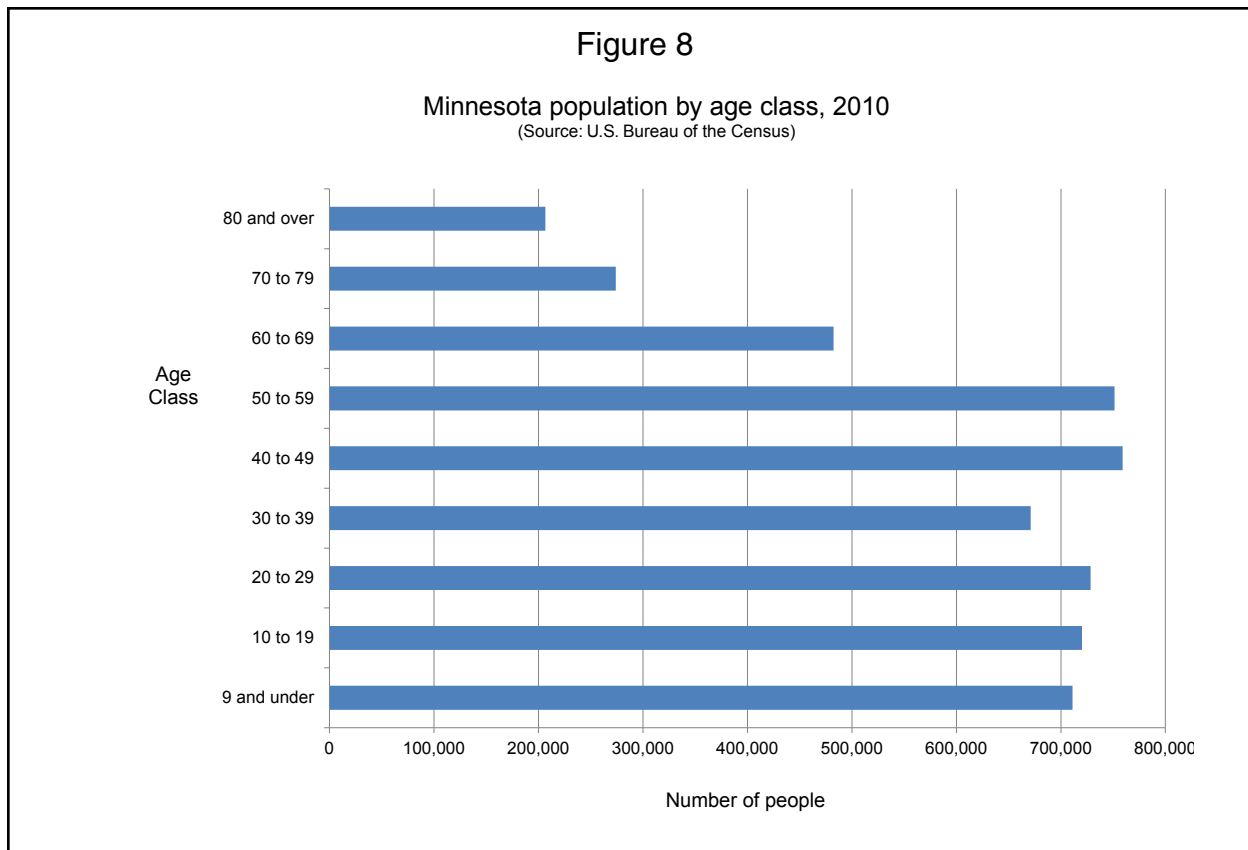


## Age-class pattern of population change, 2000 to 2010

The Minnesota population continues to grow older, led by the aging of the baby boomers, most of whom are now in their 50s and 60s (Figure 7). The median age of the population increased two years from 35.4 to 37.4 between 2000 and 2010. The younger age classes (under 50) exhibited some noticeable increases and decreases by age class over the last decade, but these largely cancelled each other out. Between 2000 and 2010, the 49 and younger age classes decreased by a mere 1 percent overall, while the 50+ age classes grew by 32 percent. All together these changes produced a 2010 population distribution with roughly equal numbers in age classes between 0 and 59 years, and progressively smaller numbers at higher ages (Figure 8).



One the major trends for nature-based recreation over the last 10 to 20 years has been the decreasing involvement of young adults and their children, while the older adults have maintained more stable involvement (Reference 3). This trend is broad based and national in scope. Evidence for this trend comes from Minnesota state parks, national parks, state non-motorized trails, hunting, fishing, and wildlife watching.



Good examples of this trend are Minnesota hunting and fishing. Up to age 45-50, licensing rates decreased from 2000 to 2010 (Figure 9). Above age 50, licensing rates became more stable and even increased for those over 65. It is noteworthy that the age classes up to 45-50—which have decreasing licensing rates—have experienced little overall population change since 2000, while the older age classes—which have more stable licensing rates—have grown rapidly. This covariation of population change and licensing-rate change has kept license numbers up.

For sure, licensing rates decrease after age 65, but the change between 2000 and 2010 is a two to three year delay in commencement of the decrease. The delay is probably due to the rise in the health and vigor of older adults, coupled with their on-going desire to participate. Continued recreation involvement into later years by older adults may warrant further attention by facility and program providers. This age cohort is expected to grow substantially in the coming years.



Figure 9

# Percent of Minnesota population with resident licenses in 2000 and 2010

(Source: MN DNR and U.S. Bureau of the Census)

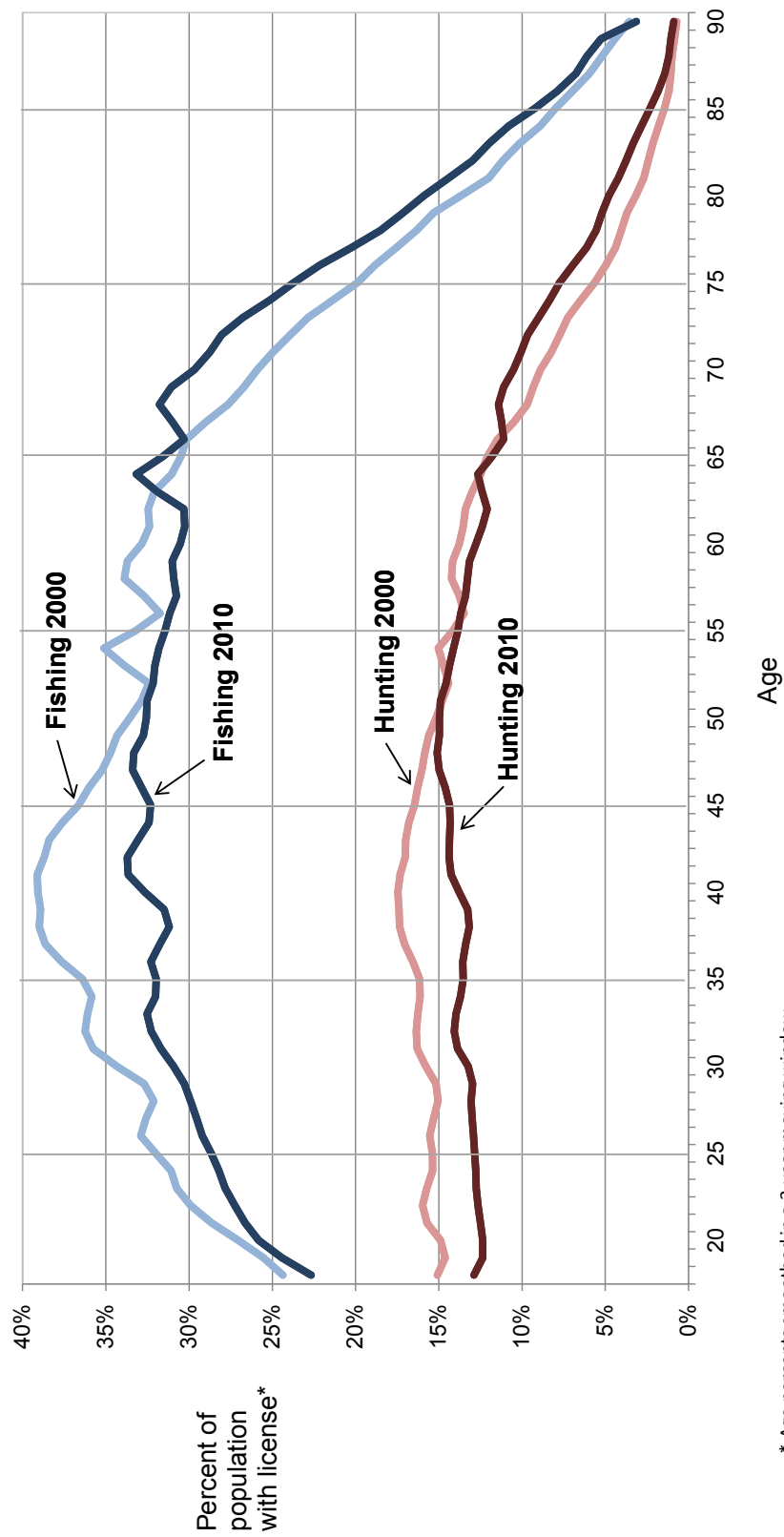


Table 1

### **Racial and ethnic pattern of population change, 2000 to 2010**

Minnesota and the nation as a whole have grown more racially and ethnically diverse for many years, and the trend to greater diversity is expected to continue. In 2010, Minnesota was 83 percent white/non-Hispanic, and 17 percent non-white and/or Hispanic (percent figures derived from population data in Table 1). For the nation, the figures are 64 and 36 percent, respectively.

Table 1					
Changing racial and ethnical composition in Minnesota and U.S., 2000 to 2010 (Source: U.S. Bureau of the Census)					
Race & ethnicity	Population <u>2000</u>	Population <u>2010</u>	Percent <u>change</u>	Numerical <u>change</u>	Percent of numerical change
<b>Minnesota</b>					
White, Non-Hispanic	4,337,143	4,405,142	1.6%	67,999	17.7%
Non-white and/or Hispanic	<u>582,336</u>	<u>898,783</u>	<u>54.3%</u>	<u>316,447</u>	<u>82.3%</u>
Total	4,919,479	5,303,925	7.8%	384,446	100.0%
<b>U. S.</b>					
White, Non-Hispanic	194,552,774	196,817,552	1.2%	2,264,778	8.3%
Non-white and/or Hispanic	<u>86,869,132</u>	<u>111,927,986</u>	<u>28.8%</u>	<u>25,058,854</u>	<u>91.7%</u>
Total	281,421,906	308,745,538	9.7%	27,323,632	100.0%

The white/non-Hispanic population grew very little in Minnesota and the nation between 2000 and 2010 (1.6% growth in Minnesota; 1.2% growth in nation), while the non-white and/or Hispanic population grew at far higher rates (54.3% growth in Minnesota; 28.8% growth in nation) (see Table 1). As a result, the numerical additions to population over the decade are mostly in the non-white and/or Hispanic population in Minnesota (82.3% of population increase) and the nation (91.7% of population increase).

Nature-based outdoor recreation involvement is much greater for the white/non-Hispanic population in Minnesota and the nation (Table 2 — Reference 4). The involvement of non-whites and/or Hispanics is a fraction of whites/non-Hispanics,

Table 2

Comparison of outdoor recreation involvement of racial and ethnic populations in MN and US

Activity or System	Place	Year	Measure of Involvement	----- Involvement of population -----			Ratio of involvement Non-white and/or Hispanic to white, non-Hispanic
				Total population	White, non- Hispanic population	Non-white and/or Hispanic population	
Hunting*	US	2006	Annual participation (age 16+)	5%	7%	1%	0.17
	MN	2006	Annual participation (age 16+)	13%	15%	4%	0.25
Fishing*	US	2006	Annual participation (age 16+)	13%	16%	5%	0.33
	MN	2006	Annual participation (age 16+)	28%	31%	11%	0.36
Away from home wildlife watching (over 1 mile from home)*	US	2006	Annual participation (age 16+)	10%	13%	4%	0.29
	MN	2006	Annual participation (age 16+)	14%	16%	5%	0.33
MN State Parks**	MN	2007	Park use per capita (relative measure)	100	113	20	0.18
MN Paved Bicycle Trails***	MN	2007-09	Trail use per capita (relative measure)	100	114	16	0.14
Metro MN regional park and trail use****	Seven-county metro area in MN	2008	Park & trail use per capita (relative measure)	100	119	42	0.35

Sources of information:

\* USFWS and U.S. Census Bureau. 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.

\*\* MN DNR, 2007 state park study: <http://www.dnr.state.mn.us/aboutdnr/reports/index.html#parks>\*\*\* MN DNR, 2007 to 2009 trail studies: <http://www.dnr.state.mn.us/aboutdnr/reports/index.html#trails>

\*\*\*\* Metropolitan Council Regional Parks and Trails Survey 2008. Prepared for Metropolitan Council by Information Specialists Group, Inc.

and these fractions vary from 0.14 to 0.35 in Table 2 (fractions in far right column). Whether the differences in the size of this fraction by activity and system are real is uncertain, given the range of data sources. What seems certain is the general pattern: consistently low involvement of the non-white and/or Hispanic populations, averaging around one-quarter of white/non-Hispanic involvement.

The relative involvement of the different populations in nature-based recreation, coupled with their respective population growth rates, create significant obstacles to expanding nature-based recreation both in Minnesota and around the nation. And they are likely important contributing factors to involvement declines in these types of recreation.

For example, Minnesota fishing and hunting participation declined some 8 and 11 percent, respectively, between 2000 and 2010 (“participation” is the percent of the population age 16+ licensed for the activity). Fishing participation fell from 31.2 to 28.9 percent, while hunting fell from 14.2 to 12.6 percent (Reference 5). It is roughly estimated that about one-third of these declines can be attributed to the changing racial and ethnic composition of the population.

All of the preceding information in this section divides the population into two categories. Some of the information can be further subdivided by race and ethnicity, but other information cannot, so the section is standardized into the two categories. Sample sizes are insufficient in some of the studies to warrant further population breakdowns.

One final note. The wildlife-watching information in Table 2 is—as noted—for “away from home” participants, who are on a wildlife-watching trip over 1 mile from home. Additional information is available for “around the home” participants, which includes an indeterminate number of “indoor” participants viewing outdoor wildlife. This report focuses on the “outdoor” recreation of participants, which corresponds better with the “away from home” category.

## **References**

1. All Minnesota and national population information comes from: U. S. Department of Commerce, U. S. Census Bureau.
2. All Minnesota fishing and hunting license information, and watercraft and recreational-vehicle registration information comes from: Minnesota Department of Natural Resource (DNR), Division of Fish and Wildlife, License Bureau.
3. Information on nature-based recreation trends comes from:  
U.S. fishing, hunting and wildlife watching: USFWS and U.S. Census Bureau. National Survey of Fishing, Hunting and Wildlife-Associated Recreation. Survey years 1991, 1996, 2001, and 2006.  
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National park visitation: Gramann, Jim H., Steve Hollenhorst, Margaret Littlejohn, and Lena Le. 2006. Last child in the parks? Age trends in U.S. National Park visitation. Abstract of paper presented at 12th International Symposium on Society and Natural Resource Management.
4. Information for Table 2 comes from:  
USFWS and U.S. Census Bureau. 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.  
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Metropolitan Council Regional Parks and Trails Survey 2008. Prepared for Metropolitan Council by Information Specialists Group, Inc.
5. Kelly, Tim. 2011. Observations on Minnesota's changing resident angler and hunter populations using licensing information from 1969 to 2010. Minnesota Department of Natural Resources, Office of Management and Budget Services.