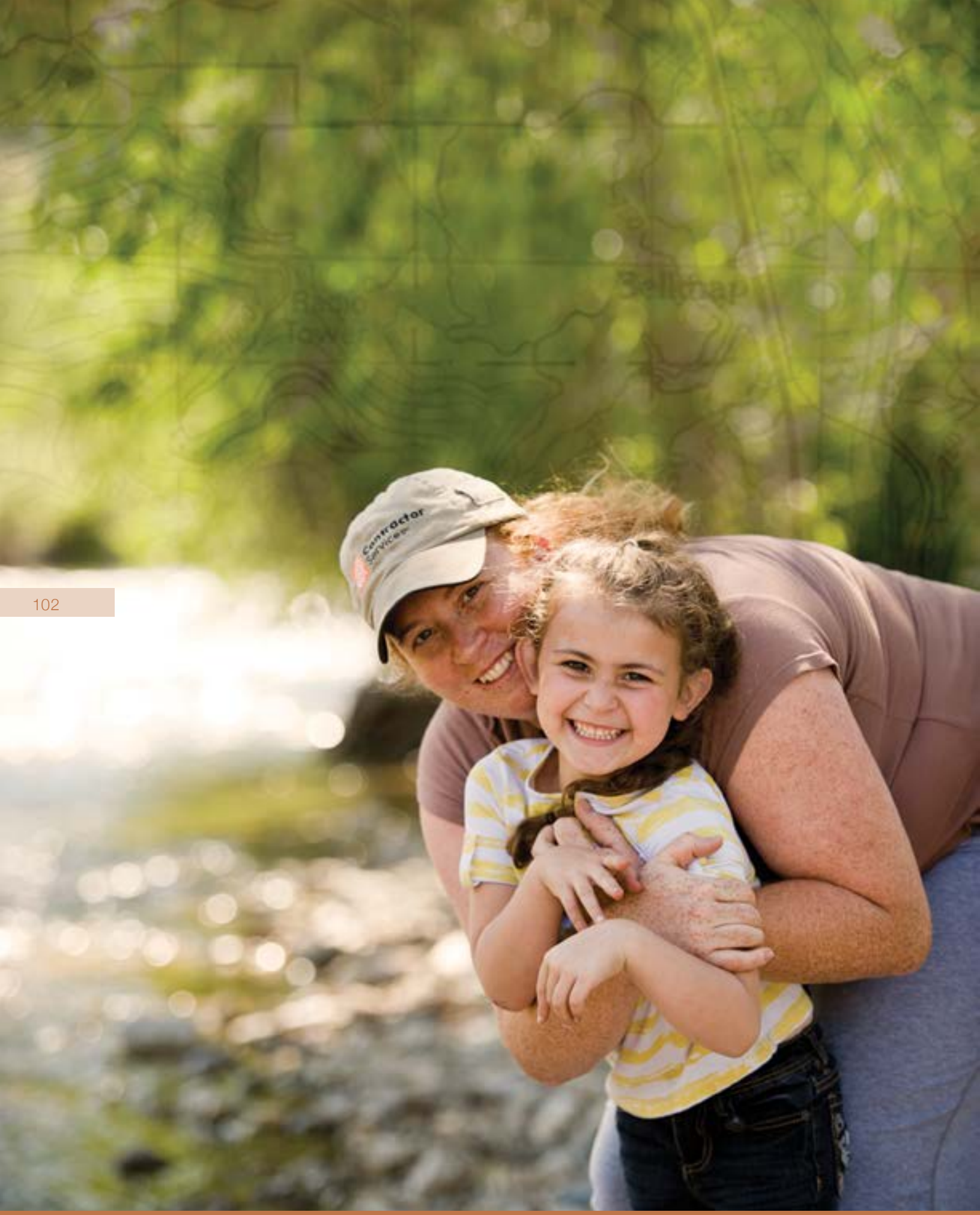
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CHAPTER 4

TRENDS AND USAGE PATTERNS

This chapter outlines major trends that are influencing recreation in Montana, including trends at the national, regional, and state levels. A discussion using the Census 2010 data provides an updated context on the social demographics and population trends. Montana is an aging population, and this has implications for recreation preferences and trends. At the same time, nearly two-thirds of Montana adults and nearly a quarter of Montana high school students are overweight or obese and do not get enough leisure time physical activity. It is important to continue to engage youth in outdoor recreation to develop and promote healthy and active lifestyles, and to encourage adults, including parents and grandparents, to also participate in regular activity through recreation.

Population projections from the Montana Census and Economic Information Center (CEIC) are also discussed to provide an understanding for recreation managers, tourism industry, decision makers, and others of where Montana's population is expected to grow in the next 20 years, and how this will impact the demand for facilities. Population changes in eastern Montana and other regions affected by the Bakken oil development will also see changes in demographics, income, social values, and a significant migration of residents to traditionally rural counties. Research has not yet focused on the impacts to recreation of oil-related migration in eastern Montana, but a few changes can be expected as seen from communities in North Dakota and other areas.

In addition, this chapter provides details on national, regional, and state recreation trends from The Outdoor Foundation, National Survey on Recreation and the Environment, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, Behavioral Risk Factor Surveillance System (BRFSS) Survey, and activity-specific data from industry and agency.

Finally, the chapter presents a special section on the economic benefits of outdoor recreation seen at the state level and related to specific recreation activities. This chapter is a precursor to the SCORP regional profiles, which presents demographic, activity, and economic information by region in Chapter 5.

DEMOGRAPHIC AND POPULATION TRENDS

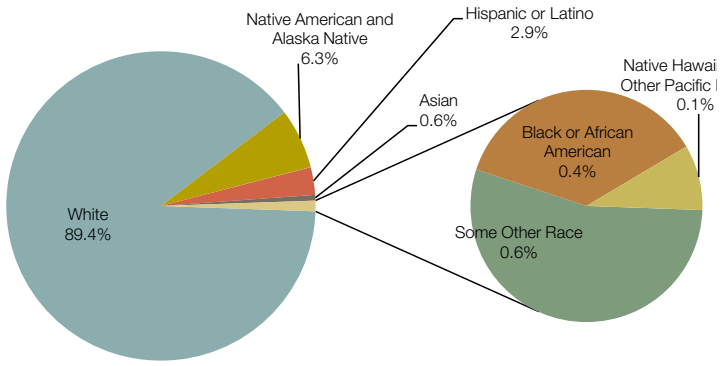
Demographics shape our communities, institutions, and social interactions on a daily basis, facilitate an understanding of current and projected recreational needs, and help policy makers implement informed decisions. Park and recreation professionals have long responded to demographic diversity by providing a range of services and facilities that cater to different age groups, social demographics, and participant preferences. Recognizing and adapting to these differences and unique population characteristics is important to the overall success of long-term outdoor recreation planning. This plan uses demographic and population data from the 2010 Census as well as the 2000 and 1990 Census' for comparisons.[1,2,3] Population projections from the Montana Census and Economic Information Center (CEIC) are also provided to demonstrate the forecasted changes for Montana through 2030.[4]

1 U.S. Bureau of Census. 2010 Census. http://factfinder2.census.gov
2 U.S. Bureau of Census. 2000 Census: Montana. http://www.census.gov/census2000/states/mt.html
3 U.S. Bureau of Census. 1990 Census: Montana. http://www.census.gov/census2000/states/mt.html
4 Montana Census and Economic Information Center. 2013. Population Projections, 2010 to 2060. http://ceic.mt.gov/Population/PopProjectionsTitlePage.aspx.

SOCIAL DEMOGRAPHICS

Montana's demographics are changing and growing. Approximately 90% of Montana residents are white, while American Indians make up the largest minority at 6.4%, which is significantly higher the national average of 1.2%. Since 2000, the American Indian population in Montana increased by almost 12%. The African American, Asian, Native Hawaiian and Hispanic populations had large increases over 30% from 2000; however these minorities still constitute on average less than 1% of Montana's population. The Hispanic population in particular increased 69% over the 10-year time period and now constitutes 2.9% of Montana's population. Compared to 16.7% nationally, Hispanics are still a relatively small population in Montana, but they are the second largest minority in the state.

FIG 18. MONTANA RACE DEMOGRAPHICS



Source: U.S.Census Bureau, 2010.

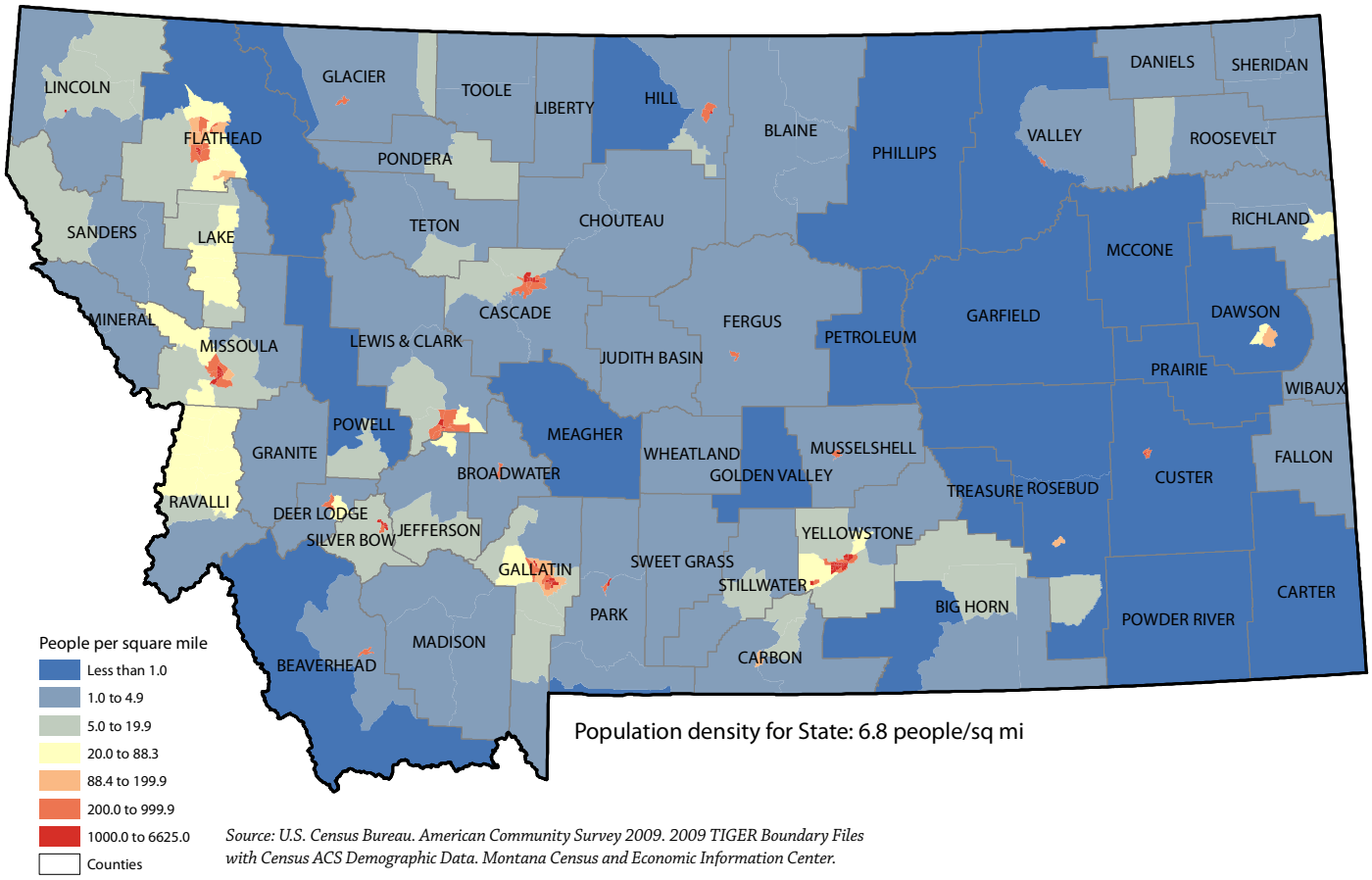
In regards to social demographics in Montana compared to the nation, about 49.8% of Montanans are female, slightly under the national average of 50.8%; 50.2% of Montanans are male. Montana has slightly higher homeownership rates at 68.9% compared to 66.1% nationally, and 2.36 persons per household. The median household income is $45,324, which is 16% lower than the national average. About 14.6% of Montanans are below the poverty level, compared to 14.3% at the national level. This is about 146,000 individuals in Montana that are living below the poverty level. Montanans also have slightly better high school diploma levels than nationally, and similar higher education levels. Close to 90% of Montanans have high school diplomas compared with 85% nationally, and more than a quarter have a Bachelor's degree which is equal to the national average.

POPULATION DENSITY AND GROWTH

Overall, the state is growing in population and slightly urbanizing, however the growth is quite different regionally. Montana's population has increased 24% since 1990 and 9.7% since 2000. In 2012, the population surpassed the 1 million mark for the first time in state history. As a comparison, Idaho's population surpassed 1 million people in 1990 and currently has 1.6 million residents, while Wyoming's current population is just over 500,000 residents and North Dakota is close to 700,000 residents. Montana's population density also increased 9.7% since 2000 with a current average of 6.8 people/square mile. The percent of Montanans living in urban areas also increased 13.4% since 2000 to a total of 56% of Montanans now living in urban areas, or just over 560,000 Montanans.

Relative to national levels, however, Montana still has a small population that is quite spread out. The average population density for the nation is 87.4 people per square mile, and nationally 62% of Americans live in urban areas. Interestingly though, Montana's population grew at a rate faster than the national average since 1990, which was 13.2%.

MAP 10. MONTANA POPULATION DENSITY BY CENSUS TRACT, CENSUS 2010



Source: U.S. Census Bureau. American Community Survey 2009. 2009 TIGER Boundary Files with Census ACS Demographic Data. Montana Census and Economic Information Center.

For population change, 28 of the 56 Montana counties grew from 2000 to 2010. Flathead, Broadwater, and Gallatin counties saw the most growth with over 20% increase in population. Conversely, a number of rural counties in central and eastern Montana outside of population centers saw low population growth or decline in population, with some counties declining by 15% over the 10 year period. The three counties with the highest percentage of population decline are Sheridan, Treasure, and Golden Valley counties.

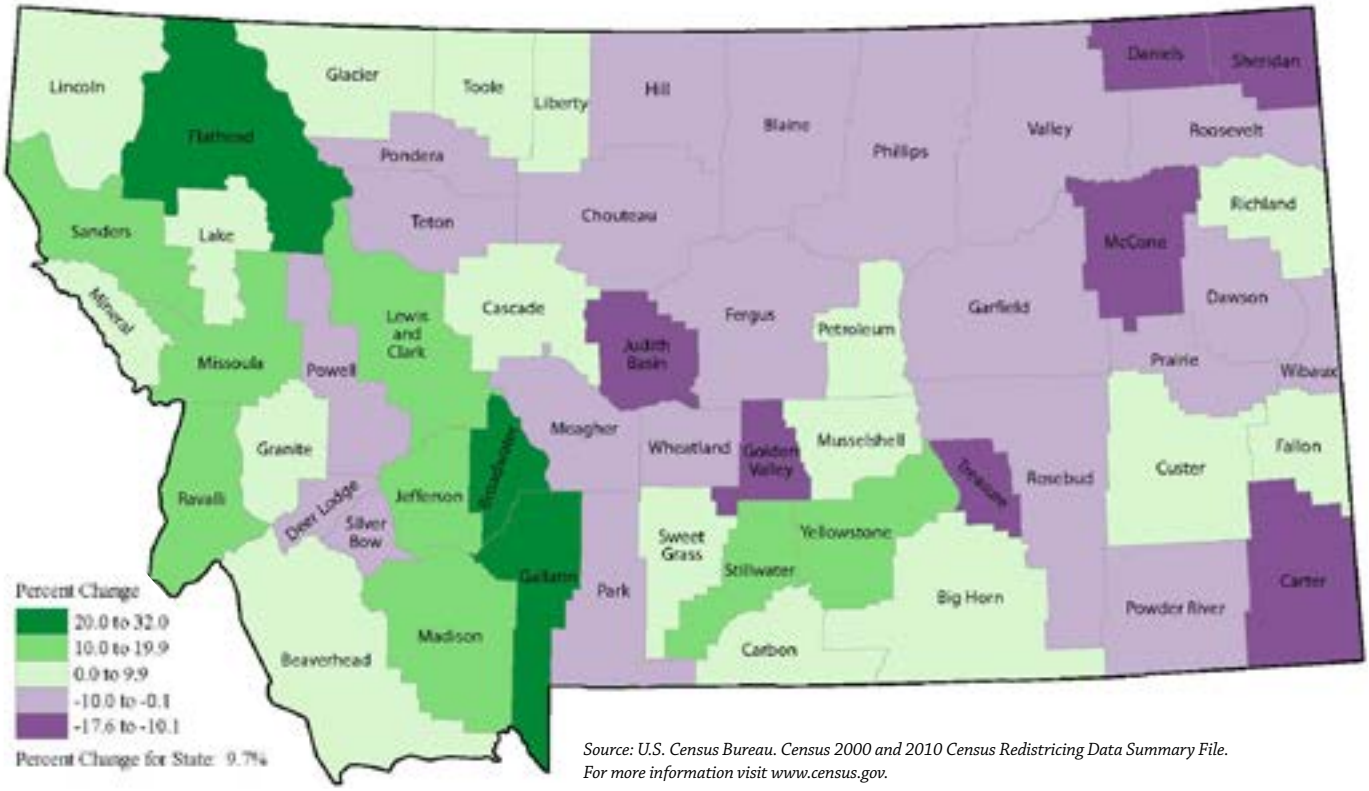
The majority of Montana's cities over 25,000 residents experienced population growth, with Bozeman increasing the most at 36%, followed by Missoula and Billings. While Kalispell is still a small city compared to national standards, it is a major population center in Montana at just under 20,000. Of all Montana cities, Kalispell had the highest population growth from 2000 to 2010 at 40%, followed by Bozeman at 36%. Billings had the largest increase in total population with over 14,000 new residents since 2000, and is still the largest city in Montana with approximately 105,000 residents.

TBL 5. MONTANA POPULATION CHANGE BY CITY

CITY	2000 POPULATION	2010 POPULATION	% CHANGE
BILLINGS	89,847	104,710	16%
BOZEMAN	27,509	37,280	36%
BUTTE-SILVER BOW	33,892	33,325	-1%
GREAT FALLS	59,690	58,505	3%
HELENA	25,780	28,190	9%
KALISPELL	14,223	19,927	40%
MISSOULA	57,053	66,788	17%

Source:U.S. Census Bureau, 2010.

MAP 11. MONTANA PERCENT POPULATION CHANGE BY COUNTIES, 2000 TO 2010



Source: U.S. Census Bureau. Census 2000 and 2010 Census Redistricting Data Summary File. For more information visit www.census.gov.

TRIBAL POPULATION CHANGES

Of the seven Indian Nations in Montana, population increased on three reservations since 2000 and decreased on four reservations. The Flathead Tribal Nation increased by 6% from 2000 to 2010, gaining about 1,000 people for a current total close to 27,700 people; from 1990 to 2010, the Flathead increased by 30%. The Blackfeet Tribal Nation, on the other hand, stayed the same in population from 2000 with just under 10,200 people; however, from 1990 to 2010, the population increased by 19%. The Chippewa-Cree Tribe on the Rocky Boy Reservation, located east of Great Falls, decreased in population by 1% from 2000 to 2010, yet still grew by 36% from 1990 to 2010. The Fort Peck Assiniboine and Sioux Tribal Nations' Fort Belknap Reservation, which is located in both the Central Montana and Missouri River Country SCORP regions decreased by 9% from 2000 to 2010, and increased just 8% from 1990 to 2010. Fort Belknap Reservation decreased in population by 6% from 2000 to 2010 to 9,600 residents, and decreased by 9% from 1990 to 2010. From 2000 to 2010, the Crow Reservation decreased by 3% to a population of 6,700 residents, while the Northern Cheyenne increased by 8% to a population of 4,800 residents. Since 1990, both Tribes have seen population growth, particularly the Northern Cheyenne which has increased 23% from 1990 to 2010. The Crow Reservation grew 5% during that same time period.

The average population density for all Nations is just over the population density for the state at 7.8 people/square mile. Flathead and Rocky Boy Reservations are the most populated with 14.6 and 21.2 people/square mile, respectively. Since 1990, population on the Flathead and Rocky Boy Indian Reservations has increased over 30%.

TBL 6. TRIBAL NATION POPULATION CHANGE, 2000 TO 2010

NATION	2000 POPULATION	2010 POPULATION	% CHANGE 2010 TO 2000	POPULATION DENSITY (PEOPLE SQ/MI)
BLACKFEET	10,100	10,182	1%	4.4
CROW	6,894	6,712	-3%	1.9
FLATHEAD	26,172	27,692	6%	14.6
FORT BELKNAP	2,959	2,701	-9%	2.9
FORT PECK	10,321	9,678	-6%	3.0
NORTHERN CHEYENNE	4,470	4,816	8%	6.9
ROCKY BOY	2,676	2,648	-1%	21.2

Source:U.S. Census Bureau, 2010.

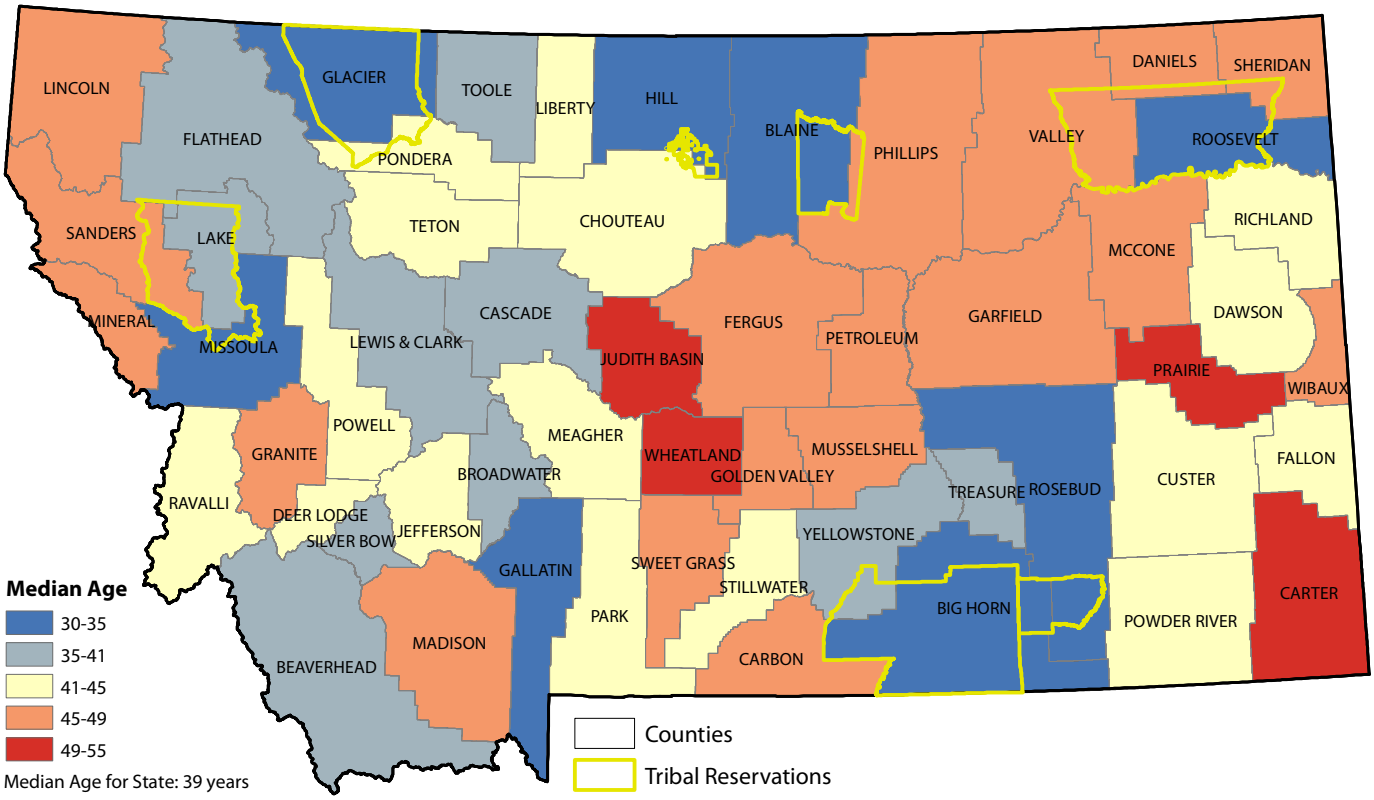
CHANGING AGE DEMOGRAPHICS

In addition to a changing population, Montana is continually growing older. The median age increased from 37.5 years in 2000 to 39 years in 2010. The percent of residents over 65 years of age increased by 21.3% to 14.8% of the population, while the percent of residents under 18 declined by 4.5%; similarly, the percent of Montana residents over 85 years of age increased by 31% from 2000 to 2010. The percent of residents over 65 years (including 85 years and over) increased at a higher rate than the total population growth for the state over the 10-year period. This is the same when compared to the national population change for both total population and for the two age groups. In fact, 49 counties in Montana exceeded the national percentage for 65 years and older while 43 counties exceeded the percentage for 85 years and older.

Geographically, residents in central and eastern Montana are generally older than residents in western Montana. Four counties had a median age over 49 years of age, and six counties had a quarter of their population over the age of 65 years. Counties with a lower median age than the state average are mostly in western Montana, including Missoula, Glacier, and Gallatin counties. As of 2010, only 24.8% of Montana households had individuals less than 18 years of age. Conversely, this means that almost 72% of households do not have individuals under the age of 18 years, compared to only two-thirds of the households nationally. Likewise, nearly 25.6% of Montana households had individuals over 65 years of age, which is slightly more than the national average of 24.9%.

In addition to an aging population, recreation providers must also consider the needs of people with disabilities. According to the 2000

MAP 12. MONTANA MEDIAN AGE BY COUNTY, AMERICAN COMMUNITY SURVEY 2009



Source: U.S. Census Bureau. American Community Survey 2009. 2009 TIGER Boundary Files with Census ACS Demographic Data. Montana Census and Economic Information Center.

U.S. Census, still considered the best and most recent data source for people with disabilities, 12% of Montana residents are classified as having a physical disability. By age group, 1% of residents age 5-15 have a physical disability, 7% of residents age 16-64 have a physical disability, and 27% of people age 65+ have a physical disability. In the 2010 American Community Survey, approximately 20.6% of people over 65 with a disability had hearing difficulty, while 20.9% had ambulatory disability, which refers to a physical and permanent disability to such a degree that the person is unable to move from place to place without the aid of a wheelchair. Among race, Black or African American and Native American and Alaska Native had the highest percentage of disabilities at over 14% of the population in Montana. Close to 13% of Whites in Montana had a disability, while 11% of Hispanics in Montana had a disability.

TRIBAL AGE DEMOGRAPHICS

It is significant to note that many of the younger counties in Montana are located within Tribal Reservations boundaries. The majority of Indian Nations actually have an opposite age demographic than the state as a whole, with younger counties, more densely populated, and a population growing faster than the state. Six of the seven Indian Nations have a median age less than 30 years old, with the Northern Cheyenne Reservation having the lowest median age at 22.8 years. The exception is the Flathead Indian Nation in northwest Montana, which has a median age of 39.1 years—similar to the state median age. Also of significance is the percent of individuals living in poverty on Tribal Reservations. There are 14.8% of Montanan's living in poverty at the state level, however this more than doubles when looking at the Tribal Reservations specifically. Northern Cheyenne has the highest percent of individuals living in poverty at 39.7%. Fort Belknap, Rocky Boy, and Blackfeet all have close to a third or more of individuals living in poverty. The Crow Tribal Nation has the lowest at 21.1%, which is still higher than the state average.

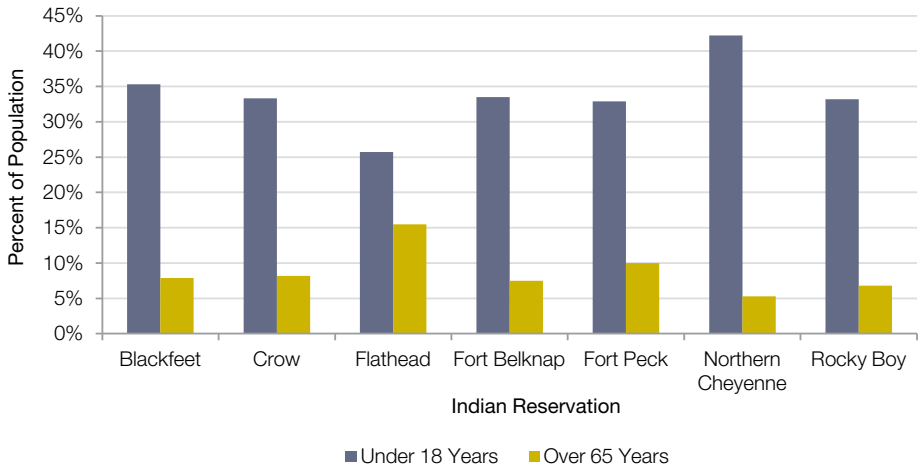
The Indian Nations also have a higher percentage of their population under 18 years than over 65 years, and have a particularly higher percentage of their population under 18 years than the rest of the state. Other than the Flathead Indian Nation, all Reservations have more than a third of their population under the age of 18 years with the Northern Cheyenne again having the highest at 42% of their population under 18.

TBL 7. MEDIAN AGE AND POVERTY LEVELS BY RESERVATION

INDIAN RESERVATION	MEDIAN AGE	% INDIVIDUALS IN POVERTY
BLACKFEET	27.5	31.4%
CROW	28	21.1%
FLATHEAD	39.1	22.9%
FORT BELKNAP	28.4	37.7%
FORT PECK	29	28.4%
NORTHERN CHEYENNE	22.8	39.7%
ROCKY BOY	25.8	36.9%

Source:U.S. Census Bureau, 2010.

FIG 19. AGE DEMOGRAPHICS FOR INDIAN NATIONS, 2010



Source:U.S. Census Bureau, 2010.

POPULATION PROJECTIONS: 2010–2030

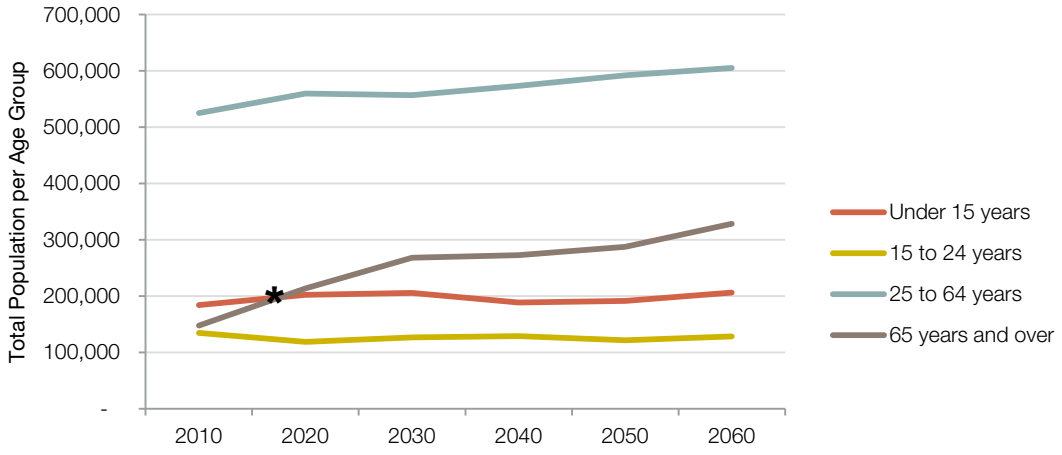
Population projections are prepared after each Census to help determine the projected growth and demographic changes. Population projections are estimates of the population for future years and illustrate possible courses of population change based on assumptions about future births, deaths, net international migration, and domestic migration. Population projections are provided by the Montana Department of Commerce's Census and Economic Information Center (CEIC), and are currently available through 2060. For analysis in the SCORP, this plan will look at projections for 2020 and 2030.

By 2020, Montana's population is projected to grow by 10.5% to over 1.09 million residents. By 2030, the population is projected to grow by 16.7% to close to 1.17 million residents. The furthest projections have the population growing by 28% from 2010 to 2060, with a quarter of a million more people living in the state for a population over 1.2 million.

When breaking down the projections by age category, Montana's population will continue to age and there will be fewer young people that call Montana home. From 2010 to 2020, Montana's population over 65 years will increase by 45% and will make up 20% of the total population. Also by 2020, the population of 65 years and older will have surpassed the population of 15 years and under. The growth of this age category will continue to grow rapidly through 2030 when baby boomers will be between the ages of 66 and 84 years of age, and essentially 1 in 4 Montanans will be over 65 years of age.

The population 15 years and under will increase at a much slower rate than the population of 65 years and older. From 2010 to 2020, this group will only increase 10% and will make up 19% of Montana's population. By 2030, the number of Montanans that are 15 years and under will increase only another 2%. Conversely, Montanans between the ages of 15 to 24 years will generally decrease between 2010 and 2060. From 2010 to 2020, there will be a 12% decrease, and then another 6% decrease through 2030. By 2060, this population will be 5% smaller than 2010 levels. Even the largest age group of 25 to 64 years will see only moderate growth as Montanans continue to grow older and move into the 65 years and older age category.

FIG 20. MONTANA POPULATION PROJECTIONS BY AGE, 2010 TO 2060

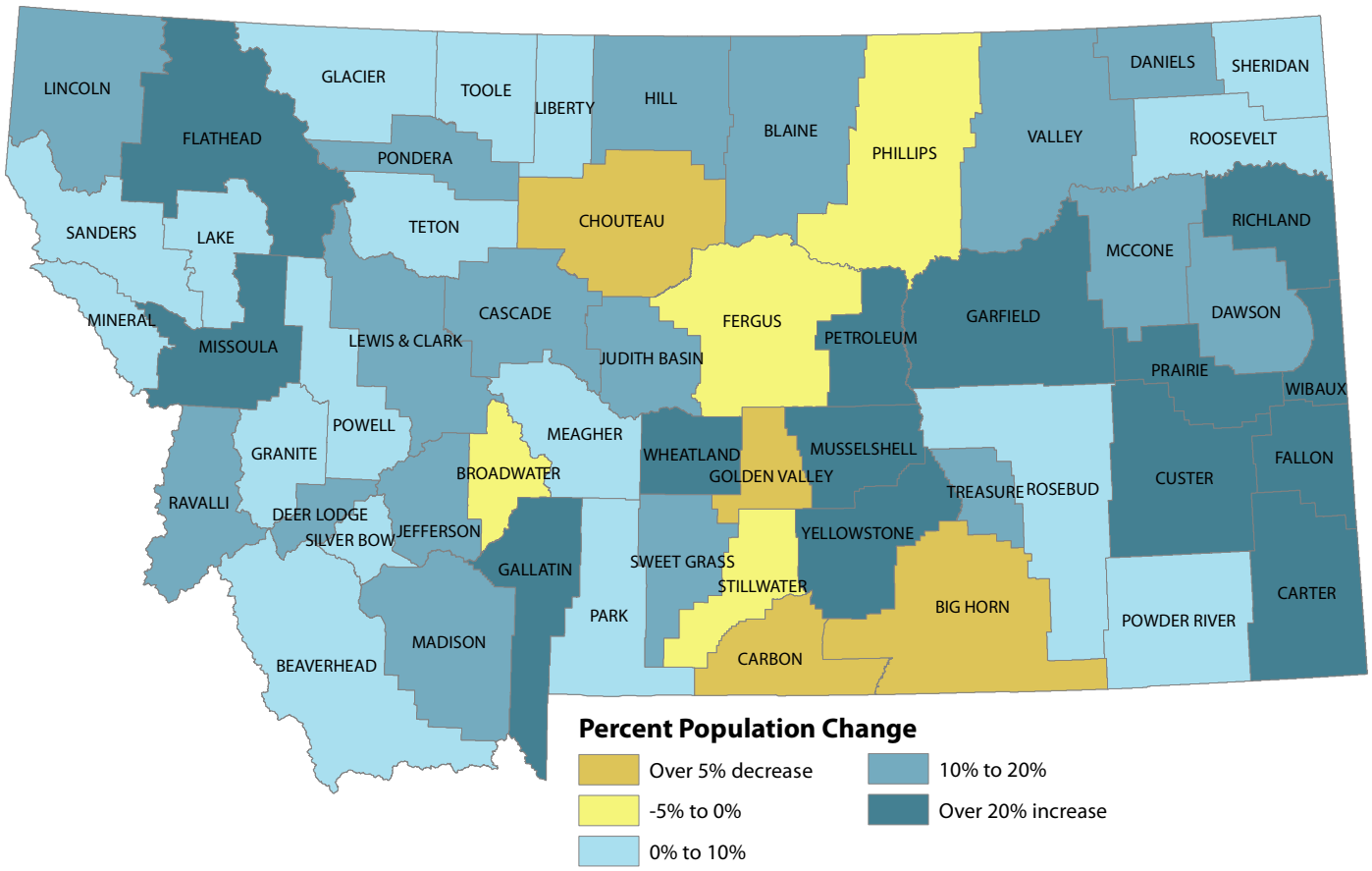


• By 2020, the population of 65+ is projected to surpass the population of 15 and under.
Source: Montana Census and Economic Information Center, 2013.

By county, population projections through 2020 vary quite a bit. By percent growth, Petroleum and Fallon counties in eastern Montana are projected to have the highest percent increase from 2010 to 2020 at 38%. It should be noted however that the total increase is only 187 people for Petroleum County and 1,101 people for Fallon County. More populated counties like Gallatin, Missoula, Flathead, Yellowstone, and Cascade counties will all see increases ranging from 11% to 18%. When looking at the total number of people, Yellowstone County will gain the most people by 2020, with more than 22,000 new residents. Gallatin, Missoula and Flathead will all see an increase of more than 10,000 new residents.

From 2010 to 2030, Petroleum and Fallon counties are again expected to have the most percent change in population, with more than 68% growth in Petroleum County and 49% growth in Fallon County. Again, the total population gained will be relatively small compared to the larger metropolitan areas. Richland County will see considerable growth at 37% from 2010 to 2030, as will Gallatin and Custer counties with both a 30% increase. When looking at the total number of people gained by 2030, Yellowstone County again will have the most with over 32,000 new residents, followed by Gallatin, Missoula, and Flathead, which will all gain more than 20,000 new residents from 2010 to 2030.

MAP 13. MONTANA PERCENT PROJECTED POPULATION CHANGE BY COUNTY, 2010–2030



Source: Census and Economic Information Center, Montana Department of Commerce

There are also a number of counties that are project to lose population. From 2010 to 2020, Golden Valley will decrease in population by 15%, followed Carbon, Fergus, Choteau and Big Horn counties. In total population, however, Carbon County is projected to lose the most with 675 fewer residents by 2020. Fergus, Big Horn, Golden Valley, and Choteau will all loose more than 100 residents. By 2030, Big Horn County is projected to lose 1,000 residents, followed by Carbon County with over 700 residents. For complete population projections by county, see Appendix C.

When looking out towards 2060, Missoula County is projected to gain the most new residents with over 58,000 people, slightly more than Yellowstone County and Gallatin County. By percent change, Missoula County will grow by 53% for a total of 167,000 residents while Yellowstone County will only grow by 39% for a total of 206,000 residents. Gallatin County will grow by 62% for a total of 145,000 residents. Flathead and Cascade counties are also projected to have over 100,000 residents by 2060. Conversely, Big Horn County will see a decrease in population by over 5,000 people, 41% fewer residents than in 2010. Stillwater, Rosebud, Glacier, Carbon, and Lake Counties will all decrease by 1,000 residents or more.

FIG 21. TOP INCREASES AND DECREASES IN COUNTY POPULATION PROJECTIONS, 2010 TO 2030

BAKKEN OIL FORMATION DEVELOPMENT

The Bakken oil formation development began in 2008 when new technology made viable for industry to access the oil within the Williston Formation, or commonly called the Bakken Formation. The Bakken is primarily located in North Dakota, however the shale stretches into Eastern Montana where many of the impacts of the oil boom are also being felt. As part of the population projections prepared by the Census and Economic Information Center, special consideration was given to Eastern Montana and the potential impacts of oil development based on various levels of oil production.[5]

Population in counties near the Bakken oil formation is projected to outpace the state's metropolitan counties when viewed by their percent of growth. The area is a loose region, with many impacts being felt throughout Montana; however for the population projections, the region is defined by the Montana Department of Transportation's planning regions, which are detailed in Map 12. While the percent of the total Montana population is still relatively small, counties in Eastern Montana are projected to see a much higher growth rate given the oil development. The growth is attributed to high rates of in-migration as people move to the region seeking jobs related to oil exploration and energy development.

Under a high oil production scenario—the most liberal estimate—Eastern Montana's population is projected to increase 24% by 2020, and 39% by 2030. The total population of the region will grow from 80,500 residents in 2012 to almost 112,000 residents in 2030. All counties in the region are expected to increase under a high oil production scenario from 2012 to 2030. Fallon and Custer counties are projected to increase over 50%, with Fallon increasing by more than 67%.

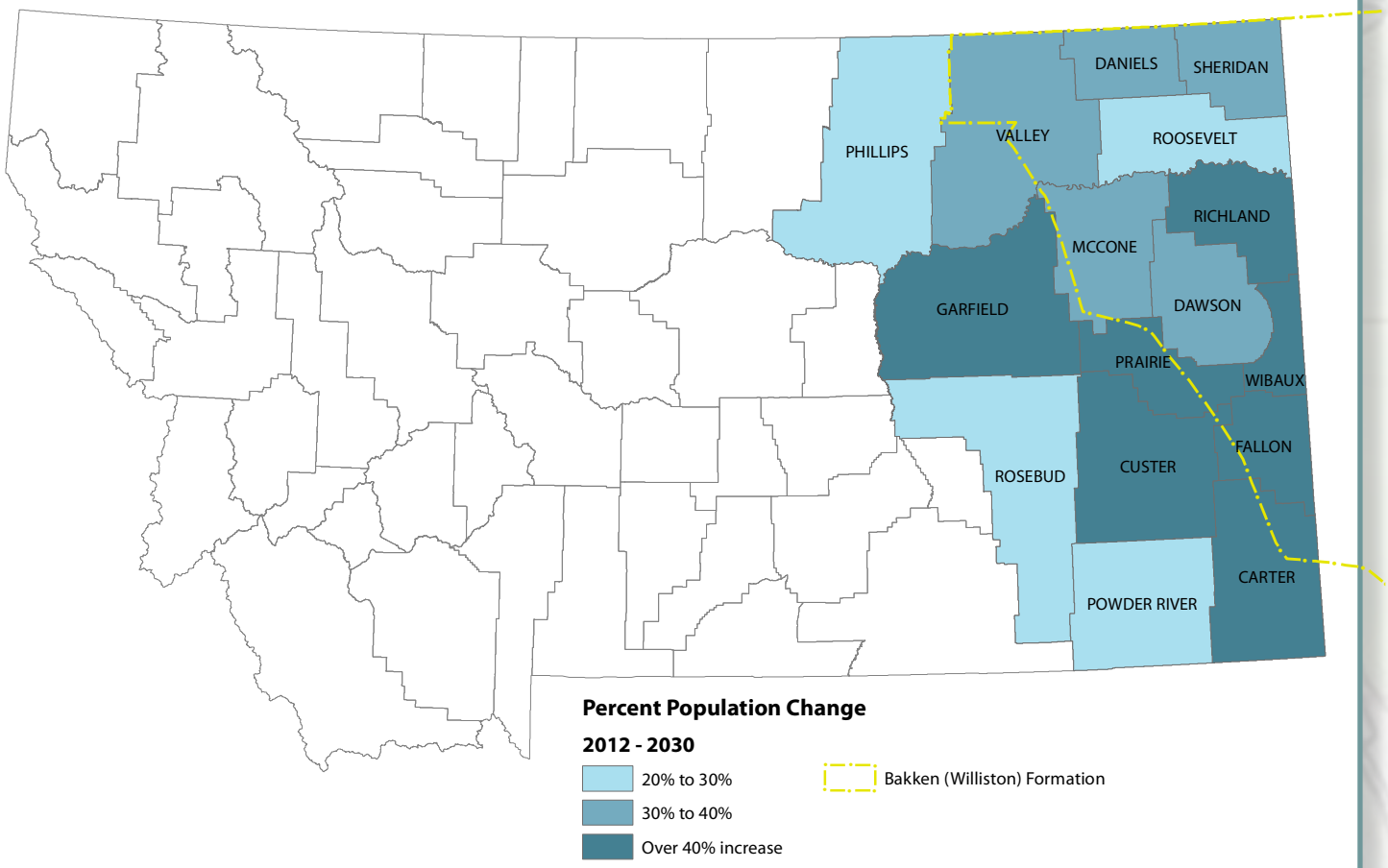
As a result of the Bakken oil development, Eastern Montana is experiencing phenomenal economic and population growth. While there are many concerns about the current rate of growth, if the population and revenue growth were to slow, a bust could occur that would threaten the economic and social livelihood of the region equally or even more so than the challenges communities currently face. It is necessary and important for communities to plan for these impacts, and for recreation providers to participate in developing solutions and programs to mitigate the challenges.

Contributing to the economic and social livelihood of the region and communities are parks and recreational opportunities. There is very little data or research currently available that discusses the impacts to parks and recreation specifically, but some publications are beginning to analyze the impacts that communities are facing or are expecting to face in the next 10 to 20 years. The North Dakota State University Extension Service Center for Community Vitality released a report in 2011 that discusses the concerns of North Dakota Bakken oil counties.[6] In the report, a number of issues were highlighted that can shed light on potential impacts for parks and recreation in the Bakken counties and in Montana (see highlighted section on Oil Development Impacts).

5 Montana Census and Economic Information Center. 2013. Population Projections, 2010 to 2060. http://ceic.mt.gov/Population/PopProjectionsTitlePage.aspx.

6 Bohnenkamp, S., Finken, A., McCallum, E., Putz, A., and Goreham, G.A. 2011. Concerns of The North Dakota Bakken Oil Counties: Extension Service And Other Organizations' Program Responses To These Concerns. A Report Prepared for the Center for Community Vitality, North Dakota State University Extension Service. Department of Sociology and Anthropology, North Dakota State University, Fargo.

MAP 14. EASTERN MONTANA POPULATION PROJECTIONS, 2012 TO 2030



Source: U.S. Census and Economic Information Center, Montana Department of Commerce. United State Geological Survey, National Assessment of Oil and Gas Project

OIL DEVELOPMENT IMPACTS

Oil development is currently bringing, and is expected to continue to bring drastic changes to a historically rural, unpopulated, and spread out region. Population growth is coming faster than many cities and towns can plan for it, and there are a number of concerns arising related to the increased migration into small communities. Some of the largest concerns relate to strains on public utilities like water, sewage systems, and garbage disposal; infrastructure challenges for roads, bridges, and transportation corridors; labor and job-related issues; increase in crime; and quality of life issues like education, affordable housing, and the ability of cities to keep up with increased demand. Impacts to recreation are not widely known, but changes are expected to occur in parks and recreation service provision and number of users over the next 50 years.

Communities with weak regulations for zoning, including parks and open space designations, may not be able to address certain violations and unauthorized uses in the parks. A rapid influx of workers can lead to housing shortages, wherein "man camps" are often established to supplement the need for housing. Man camps are often little more than RV parks that provide a location for workers to live close to the work site without adding much infrastructure of development. Unregulated man camps can also become established in parks with day use regulations, particularly in areas outside of city boundaries away from local enforcement, like in state parks and on public lands. Parks with overnight camping can also see an increase in long-term campers that stay the maximum allowed number of nights, or may violate regulations and stay longer than allowed. These uses, if gone unregulated, can conflict with traditional park users and cause competition in campgrounds for vacationing residents and tourists passing through. Many counties are now making strides in updating their growth policies, developing comprehensive plans and zoning, and addressing challenges of housing shortages and impacts to public services, which will help mitigate issues in the long-term.

While the oil industry brings jobs into the area, many communities still experience labor shortages for non-oil related private businesses and in the public sector with local municipal agencies, including parks and recreation agencies. High-paying jobs in the oil fields can reduce the workforce in the general community, particularly among youth or young workers that help staff seasonal positions. Often, these populations of workers are drawn to the oil fields for quick money instead. Engaging and training local youth to be the next generation of parks and recreation leaders, whether as park rangers, park managers, program coordinators, or maintenance workers, can become more difficult as fewer youth see parks and recreation as a relevant and viable career path. As a result, the stewardship of community resources and assets can become a challenge in the long-term.

Agencies may also experience a strain on their recreation programs and resources. Budget cuts related to the economic recession may add stress to already strained programs and services, and funding can be a challenge to adequately run programs. With an increase in population, this creates more challenges for recreation agencies to initiate new programs, develop new facilities, and continue to maintain facilities to a higher use level while still maintaining the quality of current programs and services. Crime and safety incidents are also major concerns, and education and enforcement will be strong focus areas for staff resources in these communities.

OUTDOOR RECREATION PARTICIPATION AND TRENDS

The purpose of this section is to discuss outdoor recreation trends in Montana, as well as at the national level to provide context for comparison and discussion. Analyzing recreation trend data helps us understand usage patterns, growing demands, and how factors like population growth and socioeconomic characteristics impact recreation within Montana. Accurate information about recreation use and trends is important for making recreation planning decisions for land managers and recreation providers.

Recreation trends are provided through a number of surveys and reports include:

- The Outdoor Foundation
- Physical Activity Council
- National Survey on Recreation and the Environment
- 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation
- Behavioral Risk Factor Surveillance System (BRFSS) Survey
- Institute for Tourism and Recreation Research

Trends and usage patterns are also discussed using data from industry and agency, as well as activity-specific data like hunting and fishing licenses. This section does not attempt to provide a complete discussion of every outdoor recreation activity in Montana, but highlights the trends of major recreation activities based on participation rates, projected participation, and growth in industry sales. Emerging trends are also discussed to prepare recreation managers for potential future facility needs and improvements.

KEY FINDINGS IN RECREATION TRENDS

Recreation is extremely diverse, and many factors can influence recreation participation, preferences, and trends. Key trends identified in review of research and reports include:

NATIONAL TRENDS

- More Americans participated in outdoor recreation in 2012 than any year prior, and the trend is expected to increase. Participation varies by age and demographics, however participation rates remained relatively stable. Among youth, additional work is needed to engage Hispanic youth and young adults in recreation, as they are currently underrepresented in the participation rates.
- Walking and running remains the most widely participated in activities, while wildlife viewing gained the most new participants since 2010. Water activities are also popular, while more adventurous forms of skiing have replaced classic skiing in terms of percent growth.
- Emerging activity trends on the national level include adventure racing, non-traditional triathlons, stand up paddling and kayak fishing. Stand up paddling in particular had the highest percentage of first-time participants in 2012. Still, currently, less than 1% of Americans participate in stand up paddling.
- Participation in fishing is declining both nationally and in Montana. However, females and youth ages six to 12 added the most new fishing participants, representing a good long-term growth target. Still, fishing loses more participants than it gains each year.
- Generation Z (those born after 2000) has the highest levels of participation in outdoor recreation activities, particularly individual, team, and outdoor sports. The Millennial generation has the highest level of participation in water, winter, and racquet sports.
- Participation in recreation activities will vary over the next 50 years. Projected per capita increases through 2060 include challenge activities, like triathlons and adventure racing, skiing, equestrian activities, and motorized water activities.

MONTANA TRENDS

- Walking remains the primary activity for Montanans, followed by backpacking, hiking, fishing, and hunting. Ranching and farming, however, is the most frequently done activity at an average of 5.3 times per week, speaking to the agriculture-based economy of the state.
- Active team sports are popular among young adult Montanans, while activities that require equipment like hunting, snowsports, and OHV are popular among middle age adults. More passive activities like walking, fishing, gardening and golf are popular among adults 50 and over.
- Walking is the most popular activity for Montana males and females, however hunting and fishing is more popular among males. Backpacking/hiking and gardening/yard work are more popular among females.
- The greatest facility need by recreation activity is swimming pools, followed by trails for road bicycling, walking, and mountain biking. Access for fishing is also a high need.
- Montanans are trending towards higher rates of obesity. By 2021, nearly one in three Montanans could be obese.
- The top barrier for participation in recreational activities is lack of time. For those with health conditions, the top barriers were physical disability and lack of time.
- Although Montanans participate in fishing and hunting activities more than the national level, participation in fishing and hunting is generally declining, particularly among nonresidents.
- Motorized recreation has increased significantly from 2000, with a 300% increase in OHV registration and a close to 200% increase in snowmobile registration. Nearly 30% of Montanans age 16 and over participate in OHV recreation, putting Montana in the top 10 states for OHV recreation.
- Recreation safety is a growing concern in Montana. Data shows that Montana is in the top states for fatalities related to avalanches and boating.

NATIONAL RECREATION PARTICIPATION AND TRENDS

The Outdoor Foundation, a non-profit of the the Outdoor Industry Association, provides annual participation reports and trends for outdoor recreation. The most recent report used for analysis in the SCORP is the Outdoor Recreation Participation Topline Report 2013.[7]

More Americans participated in outdoor recreation in 2012 than in any year since The Outdoor Foundation began measuring participation in 2006. A total of 141.9 million participants got outdoors last year, up from 141.1 million participants in 2011 and up 3% from five years ago. In addition, outdoor participants were more active in 2012 than in past years, taking an average of 87.4 outdoor outings per participant for a total 12.4 billion outings overall. Participation rates by age remained relatively stable in 2012, particularly for youth. Young participants are less diverse than the nation as a whole. In 2012, 71% of youth and young adult participants were non-Hispanic Caucasian, while 63% of all Americans were non-Hispanic Caucasian.

The Outdoor Foundation also provides averaged year-to-year changes in participation for outdoor activities that gives an indicator of how sports are trending over time. For the ten activities with the highest participation rates, wildlife viewing had the largest increase in participation at 9% from 2010 to 2012, although it decreased by 5% over the five year period from 2008 to 2012. Running and hiking had large increases from 2010 to 2012, and running had the largest increase over the past five years at 27%. Running has the highest number of participants at over 51 million Americans ages six and over, while wildlife viewing gained over 1.9 million new participants from 2010 to 2012.

7 The Outdoor Industry Foundation. 2013. Outdoor Recreation Participation Topline Report 2013. http://www.outdoorindustry.org/research/participation.php?action=detail&research_id=190.

TBL 8. GROWTH IN PARTICIPATION OF TOP TEN MOST POPULAR ACTIVITIES

ACTIVITY	% CHANGE 2010-12	% CHANGE 2008-12
WILDLIFE VIEWING	9%	-5%
HIKING	6%	6%
RUNNING (ALL)	6%	26%
RUNNING/JOGGING	6%	27%
FISHING (ALL)	4%	-2%
FISHING (FRESHWATER/OTHER)	1%	-3%
BICYCLING (ALL)	0%	2%
BICYCLING (ROAD/PAVED SURFACE)	0%	3%
CAMPING (1/4 MILE OF HOME)	-3%	-11%
CAMPING (CAR, BACKYARD, OR RV)	-5%	-10%

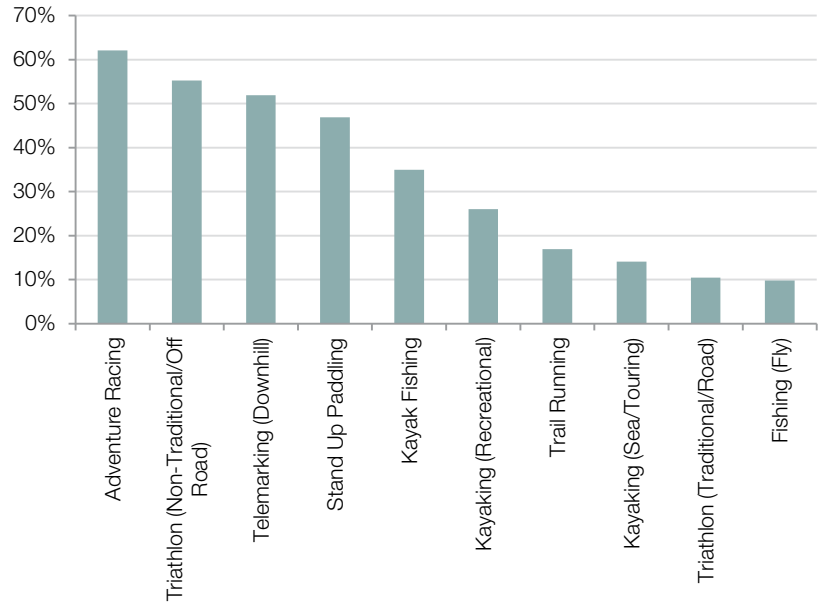
Source: The Outdoor Foundation, 2013.

Recently, adventure racing and non-traditional/off road triathlons have experienced significant growth. In the past three years from 2010 to 2012, participation in adventure racing grew 62% and non-traditional triathlons grew 55%. In the past five years, participation in non-traditional triathlons was up 140% and adventure racing was up 136%. Other forms of running like trail running and jogging have increased in participation as well.

Water sports also had big increases in the past three and five years. Stand up paddling increased 47% over the last three years, as well as kayaking. Kayak fishing and fly fishing increased 35% and 10% respectively. Over the last five years, whitewater kayaking has grown in participation by 51%, while sea touring and recreational kayaking have increased over 30% each.

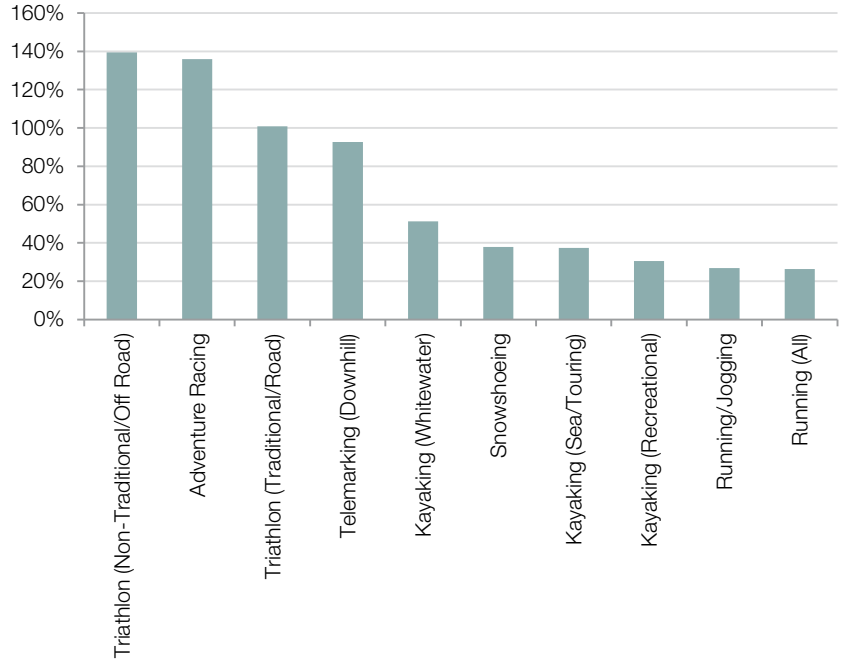
Winter activities are still popular, however activities have moved away from traditional winter activities like downhill skiing and cross-country skiing to telemarking and snowshoeing. Telemarking increased 52% over the last three years, and 93% from 2008 to 2012. Snowshoeing grew 38% in participation from 2008 to 2012.

FIG 22. TOP 10 GROWTH IN PARTICIPATION BY PERCENT CHANGE, 2010–2012



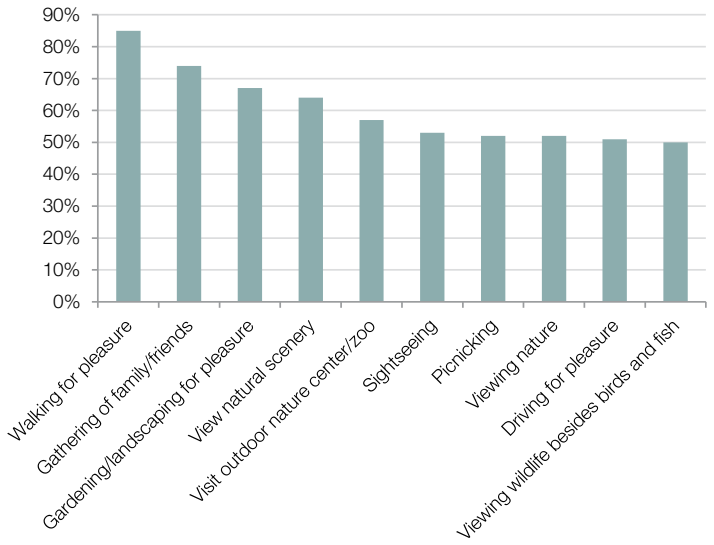
Source: The Outdoor Foundation, 2013.

FIG 23. TOP 10 GROWTH IN PARTICIPATION BY PERCENT CHANGE, 2008–2012



Source: The Outdoor Foundation, 2013.

FIG 24. TOP 10 ACTIVITIES BY PARTICIPATION, 1999 TO 2009



Source: Cordell Et Al, 2012.

These activities, while they have large percent growth, they do not always have the most participants. Stand up paddling increased from 2010 to 2012, but still only makes up 0.5% of the total participation in recreation, or 1.5 million participants in 2012. This is similar with non-traditional triathlons, kayak fishing, and adventure racing—all activities that have less than 1% of total recreation participation. Growth in these activities, while small, reflects large in percent growth.

Still, the percentage of new participants taking part in an outdoor activity can be an indicator of growth. Activities with high percentages of first-time participants in 2012 included stand up paddling, boardsailing/windsurfing and non-traditional and traditional triathlons. Though a growth indicator, the percentage of new participants in an outdoor activity is dependent on an activity's size. Growth in new participants can also mean the activity has a high turn here is a growing interest in these activities based on participation trends.

In a 2011 special report on fishing and boating from OIA, females and youth ages six to 12 added the most new fishing participants. This means that fishing appears to be taking hold with younger participants,[8] especially the female ones. While the sport is still very male dominated, younger women and girls represent a good long-term growth target. Still, fishing loses more participants than it gains each year.

Large decreases over the past three and five years include participation in winter activities like alpine, cross-country skiing, and snowboarding. Participation also declined in water activities like snorkeling, rafting, wakeboarding, canoeing, and scuba diving. The number of Americans participating in camping decreased from 2010 and 2008, and has been decreasing since OIA started publishing participation reports in 2006. For a complete table of participation rates and change from The Outdoor Foundation, see Appendix D.

Another national data source, the National Survey on Recreation and the Environment (NSRE), is administered by the US Forest Service. It is designed to measure participation in outdoor recreation activities as well as people's environmental behaviors and attitudes. In a 2012 NSRE report on Outdoor Recreation Trends and Futures, it was reported that between 2000 and 2009, 223.9 million people participated in one or more of a list of 60 activities, up 7.5% from 2000.[9] The number of activity days increased 32.5% over the nine years, and the average annual days of participation per person increased about 23%. Overall, more people are participating in outdoor recreation activities, and the trend is expected to continue through the next decade.

According to NSRE survey data from 1999 to 2001 and 2005 to 2009, the activity with the most participation was walking for pleasure with over 85% participation (Figure 23). Gathering of family and friends and gardening for pleasure rounded out the top three activities. In other activities of note, 52% of Americans participated in picnicking, 38% in bicycling, 34% in day hiking and visiting a wilderness, and 24% participated in developed camping. Swimming in outdoor pools (43%) received slightly

8 The Outdoor Foundation. 2011. Special Report on Fishing and Boating 2011. http://www.outdoorindustry.org/research/participation.php?action=detail&research_id=144

9 Cordell, Ken. 2012. Outdoor Recreation Trends and Futures: A Technical Document Supporting the Forest Service 2010 RPA Assessment.

higher participation than swimming in lakes and streams (42%). About 23% of Americans participated in motorboating while 24% participated in warm water fishing.

For increases in activities from 1999-2001 and 2005-2009, viewing nature increased the most at 29%, followed by gathering mushrooms and berries, and visiting a farm. Other outdoor activities that saw a significant increase in participation from 1999-2001 to 2005-2009 include kayaking, which more than doubled in participants from 7.0 million to 14.2 million; orienteering (67.8%); surfing (46.3%); snowboarding (33.7%); and waterskiing (33.1%). Conversely, participation decreased in cross-country skiing, ice fishing, ice skating outdoors, and windsurfing.

The NSRE also maintains national trend data based on its surveys, and a variety of participation trends in nature-based activities were observed from 2000 to 2008, based on the average annual days for in participation in activities. Motorized activities, hunting, fishing, and backcountry activities ended up at about the same level of participation toward the end of decade as in 2000. Non-motor boating grew modestly, including kayaking, rafting and canoeing, while visiting recreation and historic sites grew at a slightly higher rate. Various forms of skiing declined over the past decade, particularly cross-country skiing. For hunting and fishing, big game hunting grew the most, as well as freshwater fishing. The activity with the most increase over the past decade in growth of total annual days was by far viewing and photographing nature.

The U.S. Fish and Wildlife Service prepares the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) every five years, with the most recent completed in 2011.[10] The purpose of the survey is to collect and report on information on the number of people who fished, hunted, and wildlife watched, the extent of their activity, and the money they spent on their activities. The 2011 national survey results are presented below, with Montana-specific results in the next section.

In 2011, 90.1 million Americans, about 38% of the US population 16 years and older, enjoyed some form of hunting, fishing, or wildlife-associated recreation. Wildlife-watching had the highest participation at 71.8 million people. The majority of participants viewed wildlife around their home, while 17% visited a park or natural area to view wildlife. About 19% of participants maintained plantings or natural areas around their home for the benefit of wildlife. No significant changes occurred in wildlife watching since 2006, while there has been a 9% increase over 2001 levels.

About 37.4 million Americans participated in fishing, hunting or both sports in 2011. More than 33 million Americans participated in fishing alone, with freshwater fishing being the most popular type of fishing at 27.1 million anglers. Since 2006, the number of anglers has increased by 11%, while participation dropped slightly from 2001 levels. For hunting, 13.7 million people participated, or about 6% of the US population 16 years and older. Big game hunting attracted the most hunters at 11.6 million, followed by small game and migratory birds. Overall hunting participation increased 9% from 2006 levels, with the most increase in big game hunters. In regards to youth, about 1.8 million 6 to 15 year olds hunted, 8.5 million fished, and 11.7 million watched wildlife. There is no comparison data to understand if this is high or low.

10 U.S. Fish & Wildlife Service. 2012a. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview.

PARTICIPATION BY GENERATION

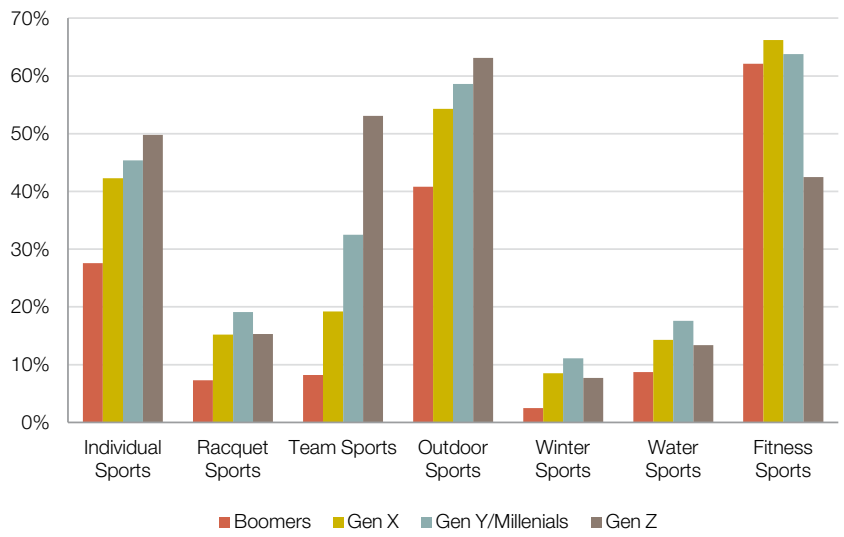
The Physical Activity Council, a partnership of six major trade associations in the US recreation industry, produced their 2013 Participation Report that details the participation of Americans six years old and over in 120 sports at the national level.[11] In 2012, overall participation in sports, fitness and related physical activities remained relativity steady from 2011 levels with around 68.1 million Americans. Fitness sports had the largest increase at 2%, while racquet sports followed with a 1% increase but still remains below the 2008 level. Both team and water sports slightly increased where individual and winter sports slightly decreased.

The report also measures inactivity levels. About 28% of all Americans were inactive in 2012. Inactivity rates have increased in almost all age groups, particularly in the younger age groups and the middle ages 45 to 64. College age individuals and those age 65 plus both showed decreases in inactivity. Inactivity rates continue to rise, however the rate at which it is increasing is slowing down.

11 Physical Activity Council. 2013. 2013 Participation Report. http://physicalactivitycouncil.com/.

When looking at 2012 participation rates by generation, Generation Z (those born after 2000) had the highest levels of participation in individual, team, and outdoor sports, followed by Generation Y or Millennials. Millennials had the highest level of participation in water, winter, and racquet sports, although the overall participation in these categories is low for all generations. Generation X had the highest level of participation in fitness sports, and high levels of participation in outdoor and individual sports. The Baby Boomer generation had high levels of participation in fitness and outdoor sports, however their participation overall is lower than other generations. They had particularly low participation in winter sports.

FIG 25. PARTICIPATION RATES BY GENERATION



Source: Physical Activity Council, 2013.

PARTICIPATION PROJECTIONS THROUGH 2060

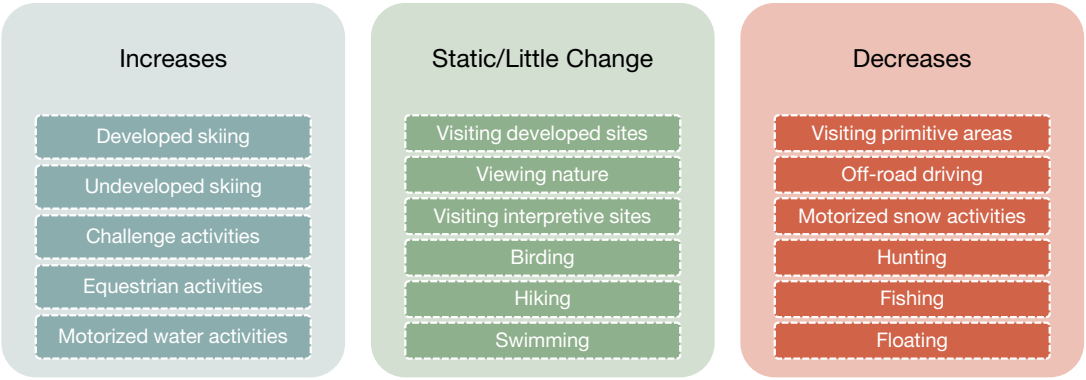
The NRSE report on Outdoor Recreation Trends and Futures includes national outdoor recreation participation projections for 17 recreation activities through 2060. The projections are developed on different models based on different levels of population growth, socioeconomic conditions, and technological advances. The modeling allows changes in recreation participation over time to be assessed in light of these changes in factors driving participation. The projections are provided as per capita population ranges based on the different assessment scenarios discussed in the report.

Based on these projections, winter activities are projected to see the highest increase in per capita participation at 20% to 50% increase. Challenge activities like mountain climbing, rock climbing, or caving are also expected to increase 6 to 18%. Motorized water activities like motor boating, waterskiing, or using personal watercrafts is projected to increase by 15% in per capita participation.

Activities that will see large decreases in per capita participation include visiting primitive areas (-5%), hunting (-22% to -31%), fishing (-3% to -10%), and floating (-7% to -11%). The report suggests that increased population density and declines in wilderness areas per capita are influencing factors for declines in visiting primitive areas. Increased education levels and population density, diminishing availability of private and public land hunting opportunities, and negative views of hunting from growing minority populations are all influencing factors for a decline in hunting.

Activities that are projected to remain static or see little change include visiting developed recreation sites for picnicking and camping, viewing nature, and visiting interpretive sites. This is not to say that there will not be more people participating in these activities, but rather the per capita population of participation will roughly stay the same.

FIG 26. PROJECTED CHANGES IN RECREATION PARTICIPATION THROUGH 2060



Source: Cordell et al, 2012.

MONTANA RECREATION PATTERNS & TRENDS

One data source that provides comprehensive state level data is the Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is the primary source of state-based information on health risk behaviors among the adult population 18 years of age or older living in households. BRFSS gathers information from U.S. adults about a wide range of behaviors that affect their health, and is done through cooperative agreements between each state or territory and the Centers for Disease Control and Prevention. The primary focus of these surveys is on behaviors that are linked with the leading causes of death—heart disease, cancer, stroke, diabetes, and injury—and other important health issues. In addition to information on health status and behavioral risks, information on a variety of demographic factors is gathered, as well as data on state-added questions. In 2002, 2006, and 2011, Montana added a series of questions about recreation use. The following discussion presents the results of those questions, as well as an analysis of the recreation data as it relates to important health factors.

TBL 9. TOP 10 PRIMARY AND MOST FREQUEST OUTDOOR RECREATION ACTIVITIES

PRIMARY ACTIVITY	% PARTICIPATION	FREQUENT ACTIVITY	TIMES/WEEK
WALKING	24.5%	RANCHING/FARMING	5.3
BACKPACKING/HIKING	11.9%	WORKING WITH ANIMALS	4.9
FISHING	8.2%	WALKING	4.0
HUNTING	7.2%	JOGGING/RUNNING	3.2
GARDENING/YARD WORK	6.2%	GARDENING/ YARD WORK	3.1
SNOWSPORTS (SKIING, SNOWBOARDING, SLEDDING)	4.3%	BICYCLING-MOUNTAIN	2.9
CAMPING	4%	SKATEBOARDING/ ROLLERBLADING	2.7
GOLF	3.7%	BASKETBALL	2.6
BICYCLING-ROAD	3.2%	BICYCLING-ROAD	2.6
JOGGING/RUNNING	3.0%	BOATING-SAILING	2.5

Source: A.L. Metcalf et al. 2013.

RECREATION ACTIVITIES

In the 2011 BRFSS survey, the top primary outdoor recreation activity for Montanans was walking (24.5%), followed by backpacking/hiking, fishing, hunting, and gardening/yard work.[12] When respondents were asked about the most frequent activity on a weekly basis, the top activity was not walking by instead ranching/farming at 5.3 times per week, followed by working with animals at 4.9 times per week. This potentially speaks to the rural, agriculture-based character of Montana that still resonates in many parts of the state, particularly in Central and Eastern Montana where ranching and agriculture is continues to be a large industry. Walking was done on average 4 times per week, jogging/running at 3.2 times per week, and gardening/yard work at 3.1 times per week. Although backpacking/ hiking, fishing, and hunting are primary activities for outdoor recreation, they are not necessarily done the most frequently, but rather on average about once per week.

12 Metcalf, A.L.; Metcalf, E.C.; and Nickerson, N.P. 2013. Montana SCORP: Behavioral Risk Factor Surveillance System: Outdoor Recreation and Resident Health. (Research Report 2013-4). Institute for Tourism and Recreation Research, College of Forestry and Conservation, The University of Montana.

The data can also be analyzed by the mean age and gender of participants. Activities that had a mean age of 29 and under were more sports-oriented activities, like basketball, football, and Frisbee. Soccer and skateboarding/ rollerblading had the lowest mean age of 26. For ages 30 to 39, jogging/ running was the most popular primary activity, followed by water-based activities like swimming and boating, and other sports activities like baseball and volleyball. Snowmobiling had a mean age of 38. Ages 40 to 49 were the most common for the majority of activities, which coincides with the fact that Montana's median age is 39 years old and increasing. Backpacking/ hiking, hunting and snowsports were the most popular. Activities with a mean age of 50 years and older tend to be more passive, like walking, fishing, golfing, and bird watching. Bird watching had the highest mean age of 64, which follows trends nationally that birders are generally older sections of the population.

FIG 27. PRIMARY RECREATION ACTIVITIES BY MEAN AGE

AGES 29 AND UNDER

- BASKETBALL
- FOOTBALL
- SOCCER
- FRISBEE
- SKATEBOARDING/ ROLLERBLADING
- WINDSURFING

AGES 30–39

- JOGGING/RUNNING
- SWIMMING
- BASEBALL OR SOFTBALL
- SNOWMOBILING
- VOLLEYBALL
- CLIMBING
- BOATING-SAILING
- ICE SKATING

AGES 40–49

- BACKPACKING/HIKING
- HUNTING
- SNOWPORTS
- CAMPING
- BICYCLING - ROAD & MOUNTAIN
- HORSEBACK RIDING
- OHV
- BOATING - MOTORIZED & NON-MOTORIZED
- CUTTING WOOD/FIREWOOD
- PLAYGROUND ACTIVITIES
- RECREATIONAL SHOOTING
- TENNIS
- RODEO

AGES 50+

- WALKING
- FISHING
- GARDENING/YARD WORK
- GOLF
- RANCHING/FARMING
- WORKING WITH ANIMALS
- PICNICKING
- BIRD WATCHING
- FITNESS COURSE ACTIVTIES

Source: A.L. Metcalf et al. 2013.

Figure 27 displays primary activities by gender and parental status. Walking and backpacking/hiking are common among both genders and parents, however there are some differences, particularly among males and females. Other top activities for males include hunting, fishing and golf, while females participate in gardening/yard work, camping and swimming. Hunting was the second primary activity for males, while backpacking/hiking was second for females; hunting was the 14th activity for females. When parents engage in activities with children, however, hunting and fishing rose back to the top of the list, as well as camping. Gardening/yard work, swimming, and golfing all drop down.

Respondents were also asked about their most desired outdoor recreation activity. Results indicate that nearly two-thirds of Montanans did not have any outdoor recreation activity interests that were unfulfilled in 2011. About one-third of Montanans desired to participate in certain activities but did not have the opportunity. The top desired activity response was fishing, followed by backpacking/hiking, and hunting. Other popular desired activities include snow sports, swimming, camping, walking, golf, non-motorized boating, and climbing. Among the different ages, skateboarding/rollerblading, soccer, and Frisbee were the most desired activities for 29 years and under. Snow sports, motorized boating, basketball, and football were the most desired activities for 30 to 39 year olds. Again, most activities were within ages 40 to 49, with backpacking/hiking, hunting, and swimming the top desired activities among that age group. Desired activities with a mean age over 50 included fishing, walking, golf, and many of the same activities as discussed above. The desired activity with the highest mean age is rodeo activities at 71 years of age.

FIG 28. TOP 5 PRIMARY OUTDOOR RECREATION ACTIVITIES BY GENDER AND PARENTAL STATUS

MALE
- WALKING
- HUNTING
- BACKPACKING/HIKING
- FISHING
- GOLF

FEMALE
- WALKING
- BACKPACKING/HIKING
- GARDENING/YARD WORK
- CAMPING
- SWIMMING

PARENT
- WALKING
- BACKPACKING/HIKING
- HUNTING
- FISHING
- CAMPING

Source: A.L. Metcalf et al. 2013.

FACILITY NEEDS & ISSUES

The greatest facility or site need by recreation activity among survey respondents is swimming, followed by road bicycling, walking, fishing, and mountain biking. Much like the Facility Manager Survey results, trails and paths are identified as a high need to support walking and bicycling activities. Respondents were also asked what they thought was the most important recreation issue. The need for facilities has consistently topped the list in the current and previous BRFSS surveys. A lack of funding and inadequate access to recreation has also had consistently high responses for survey participants. Other concerns include poor facility conditions, congestion and crowding, and inappropriate behavior of outdoor enthusiasts.

BARRIERS TO PARTICIPATION

Some respondents indicated they did not participate in an outdoor recreation activity. The primary reasons for non-participation included lack of time (30%), other (23%), physical disability (14%), cost (11%) and poor health (8%). Other did not have a fill-in option, so we do not know what other limitations people feel. When breaking this out by gender and parental status, physical disability ranked higher as an obstacle for females, while poor facility conditions was more of an obstacle for males. Poor health was also a higher factor for females than males. For parents, cost was a high factor, as well as lack of child care.

FIG 29. TOP 5 REASONS FOR NON-PARTICIPATION BY GENDER AND PARENTAL STATUS

MALE

- LACK OF TIME
- OTHER (NO FILL-IN)
- COST
- PHYSICAL DISABILITY
- POOR FACILITY CONDITIONS

FEMALE

- LACK OF TIME
- OTHER (NO FILL-IN)
- PHYSICAL DISABILITY
- COST
- POOR HEALTH

PARENT

- LACK OF TIME
- OTHER (NO FILL-IN)
- COST
- PHYSICAL DISABILITY
- LACK OF CHILD CARE

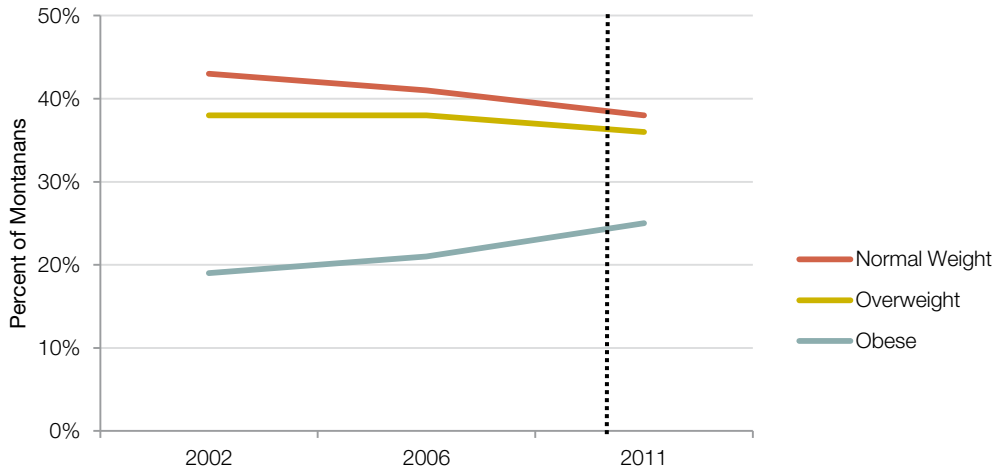
Source: A.L. Metcalf et al. 2013.

RECREATION AND HEALTH FACTORS

The BRFSS data was also cross-tabulated with health variables to understand the connection between recreation and health factors. Health variables that were analyzed include arthritis, diabetes, and obesity. Over a quarter of Montanans suffer from some type of arthritic condition, while much fewer suffer from diabetes (8%). About 25% of Montanans are obese, and another 36% are overweight. Related, about a quarter of Montanans did not participate in physical activity or exercise in the last 30 days from when the survey was administered. However, as demonstrated by the activity frequency answers, Montanans who work outside on ranches and farms for their job may not consider this as physical activity or exercise, suggesting that perhaps the percentage of inactivity could be lower depending on the interpretation of physical activity or exercise. Still, the percentage of Montanans who have not participated in physical activity in the last 30 days has increased since 2006.

The percent of Montanans who are overweight or obese has been increasing since 2002. Using the body mass index as a measure of weight, 43% of Montanans were normal weight in 2002, while 38% were overweight and 19% were obese. By 2011, this has shifted to where 38% of Montanans were normal weight, 36% were overweight, and 25% of Montanans were obese, a potential increase of 31% for Montanans who are obese. If this trend continues on the same trajectory, a trendline analysis projects that by 2021, nearly one in three Montanans could be obese.

FIG 30. DISTRIBUTIONS OF MONTANANS BY BODY MASS INDEX (BMI)



Note: Due to the sampling design changes implemented in 2011, trends comparison among current and previous years' data are not possible.
Source: Physical Activity Council, 2013.

When looking at primary recreation activity by the health variables, walking was by far the top activity for Montanans with arthritis (32.3%), diabetes (35.5%), and who are obese (29.6%). Other popular primary activities for the health variables include gardening/yard work, fishing, and hunting. Backpacking/hiking was more popular among people with arthritis than the other health variables, while golf was more popular among people with diabetes. Fishing was the most popular among Montanans with obesity, after walking.

For desired activities, fishing was the most desired among all health variables, followed by different rankings for backpacking/hiking, hunting, and walking. Swimming was more desired among Montanans with diabetes and who are obese than those with arthritis, while those with arthritis desired to play golf more.

When asked about access limitations and reasons for non-participation, Montanans with arthritis had a higher percentage of access limitations (15.3%) than the general public (5.8%), as did those with diabetes (8.6%). For reasons for non-participation, those with arthritis and diabetes listed physical disability as the top reason, followed by 'other,' which again was not coupled with a fill-in response. Cost was high for people who are obese and those who have arthritis, while advanced age was high among diabetics. Lack of time was the number of reason for obese Montanans.

FIG 31. TOP 5 PRIMARY OUTDOOR RECREATION ACTIVITIES BY HEALTH VARIABLES

ARTHRITIS
- WALKING
- GARDENING/YARD WORK
- FISHING
- BACKPACKING/HIKING
- HUNTING

DIABETES
- WALKING
- HUNTING
- GARDENING/YARD WORK
- FISHING
- GOLF

OBESITY
- WALKING
- FISHING
- HUNTING
- GARDENING/YARD WORK
- BACKPACKING/HIKING

Source: A.L. Metcalf et al. 2013.

FIG 32. TOP 5 REASONS FOR NON-PARTICIPATION BY HEALTH VARIABLES

ARTHRITIS
- PHYSICAL DISABILITY
- OTHER (NO FILL-IN)
- POOR HEALTH
- LACK OF TIME
- COST

DIABETES
- PHYSICAL DISABILITY
- OTHER (NO FILL-IN)
- POOR HEALTH
- LACK OF TIME
- ADVANCED AGE

OBESITY
- LACK OF TIME
- OTHER (NO FILL-IN)
- PHYSICAL DISABILITY
- COST
- POOR HEALTH

Source: A.L. Metcalf et al. 2013.

RESIDENT TRAVEL FOR OUTDOOR RECREATION

In the 2012 ITRR report on Resident Travel for Outdoor Recreation in Montana, about 27% of resident travel was for outdoor recreation, while another 24% was to visit friends or relatives.[13] Of the trips for outdoor recreation, about 23% were day trips and 77% were overnight trips. About 43% of Montanans who traveled at least 50 miles for outdoor recreation participated in day hiking, followed by fishing (42%), scenic driving (37%), wildlife watching (36%), and camping (28%). Other activities that were associated with outdoor recreation travel include nature photography, hunting, backpacking, and motorized and non-motorized boating.

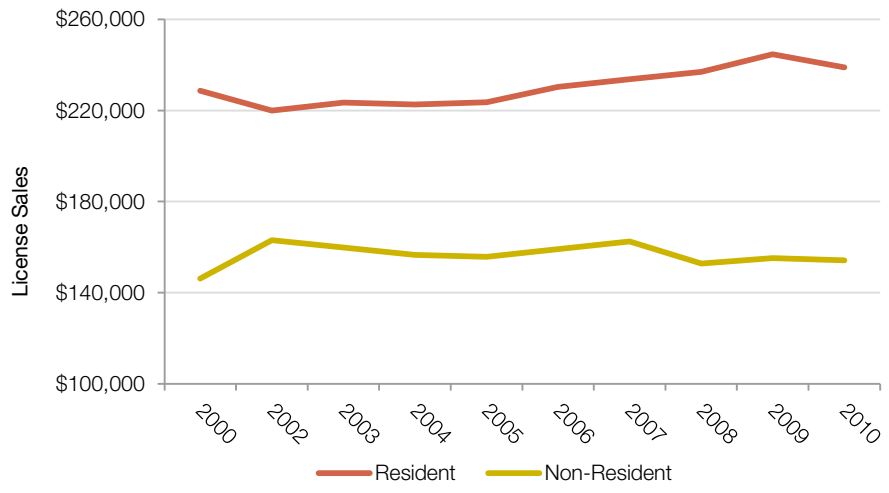
13 Metcalf, E.C.; and Nickerson, N.P. 2013. Montana SCORP: Resident Travel for Outdoor Recreation in Montana. (Research Report 2013-7). Institute for Tourism and Recreation Research, College of Forestry and Conservation, The University of Montana.

FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION

The FHWAR provides results at the state level in addition to its national report. In Montana, 62% of residents participated in wildlife-associated recreation, with 33% participating in wildlife-watching and 29% participating in fishing or hunting activities. Both of these are above the national participation rate, with hunting and fishing considerably higher than the national rate (16%). Montana had the fifth highest participation rate among states in hunting and fishing.

Although Montanans participate in fishing and hunting activities more than the national level, participation in fishing and hunting is generally declining when analyzing the license data. Fishing and hunting license data is provided by Montana FWP from 2000 to 2010, although data for 2001 was not available. Since 2000, resident fishing licenses sales has fluctuated from a low in 2002 of 220,000 licenses sold to a high in 2009 of 245,000 licenses sold, a difference of 11% between the two years. From 2009 to 2010, resident license sales dropped 2%. For non-resident licenses, sales have been slightly more consistent since 2000 with an average of 156,000 nonresident licenses sold a year. From 2000 to 2010, nonresident license sales have increased 5%.

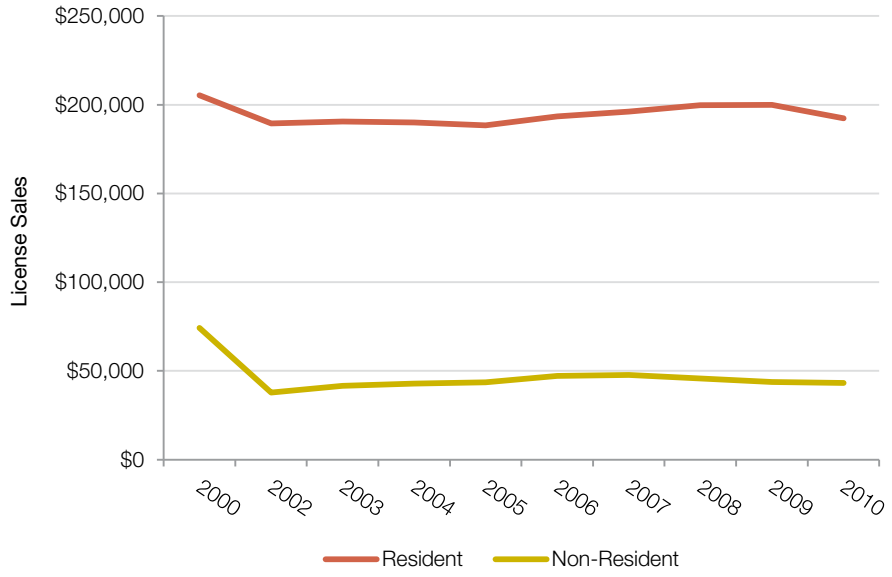
FIG 33. ANGLING LICENSE SALES IN MONTANA, 2000 TO 2010



Note: Data for 2001 was not available.
Source: Montana Fish, Wildlife & Parks, 2012.

Hunting license sales have decreased much more drastically from 2000 to 2010. From 2000 levels, resident license sales have decreased by 6%, while nonresident license sales have decreased by more than 40%. Both sales peaked in 2000 before dropping drastically in 2002. Non-resident sales have not fully recovered since 2002, while resident sales slowly rose until 2009 before dropping again in 2010. The decline in license sales for hunting in Montana is similar to the national decline in hunting, as hunting generally consists of older males. This is demonstrated in the BRFSS survey results where hunting is the second most popular primary recreation activity among males and has an average age of 48. In BRFSS, hunting as the primary activity decreased from 6.9% in 2006 to 6% in 2011, meaning fewer respondents listed hunting as their primary activity. Nationally, hunting is most popular among those aged 45 to 54, closely followed by the next age group, 55 to 64. Together, those two groups make up 43% of the U.S. hunting population.

FIG 34. HUNTING LICENSE SALES IN MONTANA, 2000 TO 2010

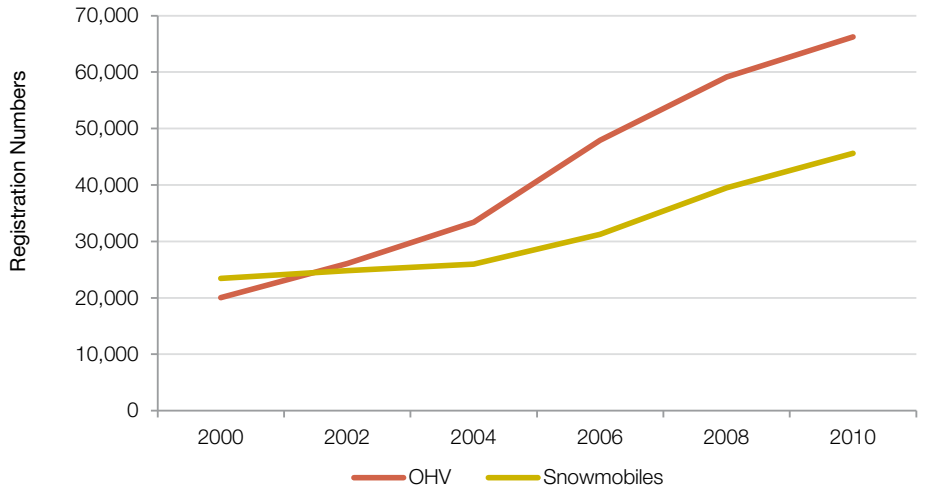


Note: Data for 2001 was not available.
Source: Montana Fish, Wildlife & Parks, 2012.

MOTORIZED RECREATION

One activity that has increased significantly since 2000 in Montana is motorized recreation, specifically off-highway vehicles (OHV) and snowmobile activities. OHV and snowmobile activities are managed by Montana State Parks through the OHV and Snowmobile Grant Programs, and numbers are provided through the vehicle registration. Since 2000, OHV registration has more than tripled from about 20,000 registered units in 2000 to close to 70,000 units in 2010, a close to 300% increase. On average, about 5,000 new OHVs were registered each year from 2000 to 2010. Snowmobile registration has also increased during the same time period, but not nearly as drastic. Registered snowmobiles have doubled from 23,000 units in 2000 to over 45,000 units in 2010.

FIG 35. OHV & SNOWMOBILE REGISTRATION IN MONTANA, 2000 TO 2010



Source: Montana Fish, Wildlife & Parks, 2012.

A 2008 study from the National Survey on Recreation and the Environment on OHV recreation use (Cordell et al. 2008) found that the West had the largest proportion of people who are OHV users by a wide margin. Over 28% of the population 16 years and older in the region participated in OHV recreation. In Montana specifically, this was slightly higher at 28.7% of the population, putting Montana in the top 10 states for OHV recreation. Neighboring states Wyoming and Idaho are at the top with 34%. As Montana is a relatively small population, it should be noted that although use is high proportionate to the state population, the actual number of users compared to other states, like California, is quite lower. Still, OHV recreation has a large presence in Montana.

When looking at regional demographics of OHV users, the West had the highest OHV participation rate of all the regions, especially among young people where more than 40% under the age of 30 were OHV users. This was more than two-and-a-half times the rate of people over age 50 (15%). Males living in the West were more likely to participate just as in the other regions, but in this region, the female rate of 23% was considerably higher than the female rate in other regions. American Indians (32%) and Whites (31%) led participation among racial and ethnic groups, but Hispanics in the West (24%) participated at a much higher rate than Hispanics elsewhere. For income level, more than 30% of people with incomes between $25,000 and $150,000 participated in OHV recreation. Similarly, all education classes except for post-graduates participated at more than 25%.

The report concludes that the dramatic growth and increasing diversity of the national population will undoubtedly continue to be reflected in OHV participation trends into the foreseeable future. A similar trend can also be expected in Montana as the population grows and income levels rise. One-in-five Americans participated one or more times in OHV recreation within in 2008, which represents about an 18% increase in the number of OHV participants between 1999 and 2007. Population growth will most likely result in more OHV users in the future.

Similar to OHV use, motorized boating has increased in Montana. Motorized boating registration in Montana is done on a permanent basis, so it is hard to track exact numbers of registered boats per year. In 2011, there were 85,500 permanently registered boats in the state, and this is expected to increase.

RECREATION RISKS AND SAFETY

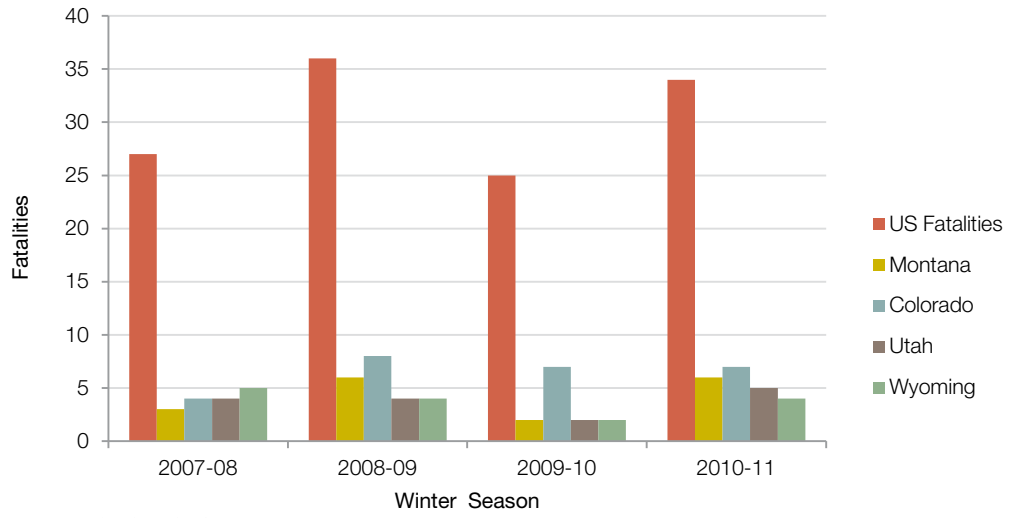
Montana provides world class opportunities for outdoor recreation, including but not limited to camping, hiking, river running, boating, mountaineering, downhill skiing, cross country skiing, snowmobiling, and off-highway vehicle riding. Many of these recreational activities are experiencing increasing use levels. The ability to safely engage in these activities is often influenced inherent risks associated with Montana's dynamic weather conditions, precipitous mountain terrain, cold and swift water, potentially dangerous wildlife and remote wildland areas.

The potential for avalanche accidents, boating and water accidents, hiking and mountaineering accidents, and human/wildlife conflicts represent risks of particular concern. As more people participate in recreation, there is an expected increase in the amount of recreation-related accidents and injuries., making public safety and risk management a critical management a top priority among recreation providers and land managers,.

Montana enjoys a wide array of winter recreation opportunities, including downhill skiing, cross country skiing, snowshoeing, snowboarding and snowmobiling. Unfortunately these activities often occur in avalanche terrain. Montana is the second highest state in avalanche related deaths over the past five years after Colorado, with 19 fatalities documented from 2008 to 2012.[14] According to the Colorado Avalanche Information Center, the majority of avalanche related deaths occur in the 21-25 age group, followed by 26-30 age group. These two age groups account for 40% of the avalanche related fatalities from 1950 to 2006. Snowmobiling related avalanches have been the largest cause of fatalities, followed by ski touring and climbing.

14 American Avalanche Association, www.avalanche.or/accidents.

FIG 36. AVALANCHE FATALITIES IN THE WEST, 2007 TO 2011



Source: Colorado Avalanche Information Center.

Similar figures exist during the summer with hiking and and other recreation accidents in national parks and on public lands. While specific statistics regarding hiking and mountaineering accidents in Montana were not available, a good example of these risks is reflected in the three fatal hiker/climber falls that occurred in Glacier National Park during the summer of 2013. {source: Glacier National Park News Releases}

Montana provides some of the best water recreation opportunities in the nation. However, Montana's cold lakes and reservoirs and swift, cold rivers create a particular concern for boating and water safety. The U.S. Coast Guard's 2012 Recreational Boating Statistics Report ranks Montana third in the nation for boating fatalities per registered vessel with a rate of 18.3%, or greater than 10 deaths per 100,000 registered boats.[15] Five year averages for Montana from 2008 to 2012 include 19.6 boating accidents, 7.6 fatal accidents, and 8.4 individual deaths per year, with an average of 7% of deaths that have alcohol use a contributing factor.

Montana is well-known for its incredible wildlife resources, including the largest population of grizzly bears in the lower 48 states as well as other potentially dangerous wildlife. Outdoor recreation in black and grizzly bear habitat represents a unique concern. Since 1980, a total of 13 individuals have been killed by grizzly bears in Montana (including Yellowstone National Park).[16] While the statistical risk of a fatal bear attack is relatively small per capita, the risk posed by bears and other dangerous wildlife is an important one for outdoor recreationists to take seriously.

15 U.S. Coast Guard. 2011. Recreational Boating Statistics 2011. http://www.safeboatingcampaign.com/statistics/2011-statistics.pdf

16 Wikipedia, Fatal Bear Attacks in North America.

Off Highway Vehicle use represents another popular outdoor recreational activity in Montana that warrants a high level of safety awareness. Unfortunately, a total of 94 OHV deaths have been reported in the state between 1982 and 2011 along with numerous accidents.[17]

The aforementioned statistics regarding outdoor recreation accidents and fatalities clearly demonstrate the importance of proactively informing and educating all outdoor recreationists about the knowledge, skills and behavior required to engage in outdoor recreation safety and responsibly. It is paramount that outdoor recreation providers and managers throughout the state emphasize outdoor recreation safety to minimize tragic accidents and injuries that affect Montana residents and our guests.

17 ATVSafety.gov.

SPECIAL REPORT: ECONOMIC BENEFITS OF OUTDOOR RECREATION

The economic contributions of outdoor recreation is being more and more widely discussed and promoted. According to the Outdoor Industry Association, outdoor recreation is big business nationally as a $646 billion industry that is the third largest sector for consumer spending after financial services and insurance, and outpatient health care.[18] Outdoor recreation employs 6.1 million people, more than the construction industry and only second to professional, technical and scientific services. It also generates $39.7 billion in state and local tax revenue and an additional $39.9 billion in federal tax revenue.

In Montana, outdoor recreation generates $5.8 billion in consumer spending and $403 million in state and local tax revenue to communities. Recreation also creates 64,000 direct jobs and generates $1.5 billion in wages and salaries. Since 2006, consumer spending on outdoor recreation has increased by 132%, the number of jobs created has doubled, and tax revenue has increased 242%. Outdoor recreation is a growing and vitally important sector in Montana that makes up 18% of total consumer spending in the state and employs 14% of Montana's workforce.

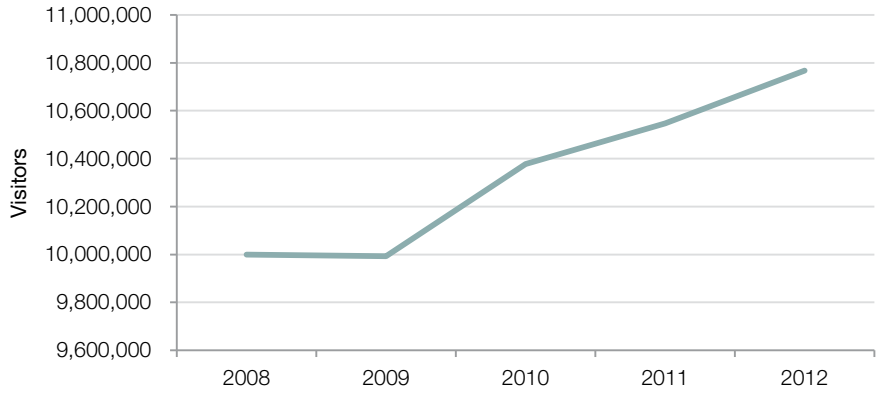
Nonresident spending from the 10 million annual visitors to the state is a significant contributor to Montana's economy. Money spent by those traveling to and through the state has an effect not only on the businesses where spending occurs, but it ripples throughout Montana's economy, both locally and regionally. Economic impact analyses allows us to observe the direct and indirect effects of the money spent by nonresident travelers in terms of the economic activity supported by this spending, and the number of jobs and labor income attributable to this spending, as well.

According to the Institute for Tourism and Recreation Research's nonresident travel reports, from 2008 to 2012 nonresident visitation increased 7.7% from 9.9 million visitors to 10.8 million visitors in 2012. Since 2002, visitation increased 10%. From 2008 to 2012, nonresident expenditures increased by 19.8% from $2.7 billion to over $3.2 billion. Since 2002, visitor spending increased 81%. In 2012, about a third of the expenditures for nonresident visitors was dedicated to gasoline.[19]

18 Outdoor Industry Association. 2012. 2012 Outdoor Recreation Economy Report (Montana). http://www.outdoorindustry.org/advocacy/recreation/resources.php.

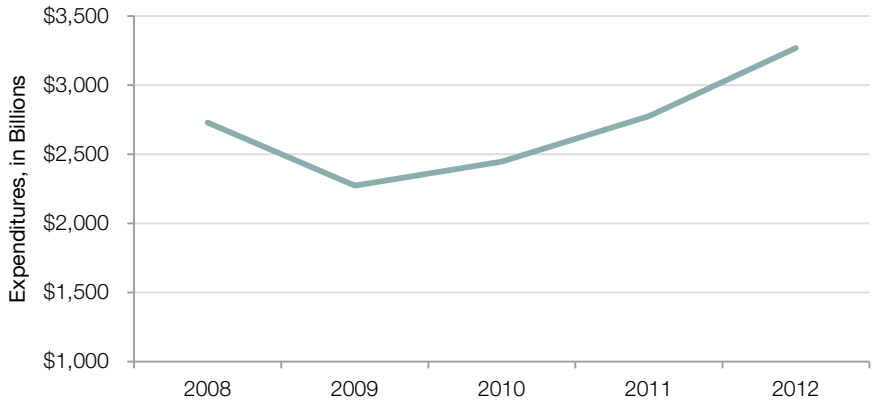
19 Grau, K. 2013. Economic Contributions of Nonresident Travel Spending in Montana Travel Regions and Counties. (Research Report 2013-9). Institute for Tourism and Recreation Research, College of Forestry and Conservation, The University of Montana.

FIG 37. NONRESIDENT VISITATION TO MONTANA, 2008 TO 2012



Source: Grau, 2013.

FIG 38. NONRESIDENT VISITOR EXPENDITURES, 2008 TO 2012



Source: Grau, 2013.

GEOTOURISM

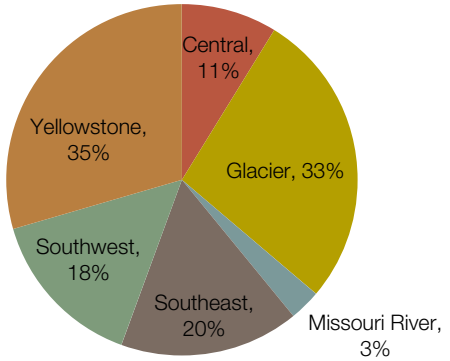
In Montana, a number of tourism and recreation entities are utilizing the concept of geotourism to attract nonresident visitors looking for an authentic Montana travel experience. Geotourism is tourism that sustains or enhances the geographical character of a place—its environment, heritage, aesthetics, culture, and well-being of its residents. Geotourism strategies provide products, services and visitor experiences that maintain a destination's sense of place and complement rather than compete with the needs of local residents. Geotravelers come to Montana to experience what is truly Montana, and they share many common values with most Montanans, including a desire to maintain the unique and authentic character of places. In Montana, one of the first areas to adopt geotourism was the Crown of the Continent, the ecosystem and geographic area surrounding Waterton-Glacier International Peace Park (Glacier National Park and Waterton Lakes National Park), including the Rocky Mountain Front, northwest Montana, southwest Alberta and southeast British Columbia.

In a 2009 ITRR report on geotourism,[20] geotourism is presented as a way to potentially help Montana and the Crown of the Continent remain "the last best place" by focusing tourism on Montana's distinctive character of a place while sustaining all aspects of the region. In analyzing the tourism preferences of nonresident visitors to the Crown of the Continent, the results indicated that visitors are environmentally conscious in their trip planning and decision-making, they seek out scenic beauty and local cultural heritage experience when traveling, and they desire local people to benefit from tourism. When travelling in Montana, visitors indicated that clean waterways and clean air are among the most important attributes to their experience, as well as wildlife viewing opportunities, scenic vistas, opportunity to view the night sky, access to public lands and open space, and clean waterways. These attributes are consistent with geotourism values.

The study concluded that 52% of travelers surveyed are moderate geotravelers, while 34% are strong geotravelers; only 14% were non-geotravelers, meaning they did not match the characteristics of geotravelers. Geotravelers care strongly about the unique and diverse aesthetic and environmental characteristics of Montana, and seek out an authentic Montana experience. In doing so, they are also important contributors to local economies. Visitors who are strong geotravelers are young, educated, and affluent, and spent over $143 a day while traveling, compared to $135 for moderate geotravelers and $109 for non-geotravelers. Many travelers embrace the values of geotourism, and geotravelers can be found all across Montana, not just in areas like the Crown of the Continent. Maintaining and enhancing our recreational, cultural, and natural resources is critical to engaging geotravelers on their adventures, and encouraging repeat visits to Montana.

20 Boley, B.; Nickerson, N.P. 2009. Geotourism in the Crown of the Continent. (Research Report 2009-1). Institute for Tourism and Recreation Research, College of Forestry and Conservation, The University of Montana. http://www.itrr.umt.edu/research09/GeotourismInCoCRR2009-1.pdf.

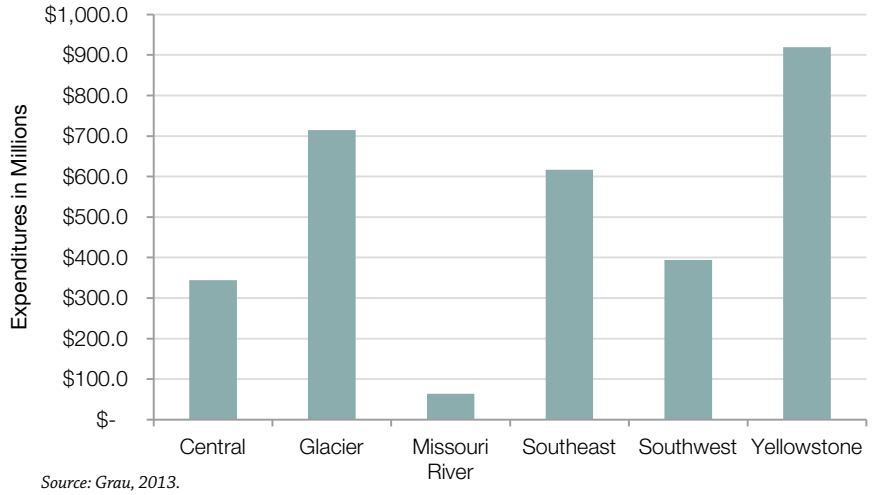
FIG 39. NONRESIDENT VISITATION BY SCORP REGION, 2012



Source: Grau, 2013.

When looking at visitation and expenditures by the SCORP regions, there are some big variations. In 2012, Yellowstone Country had the highest visitation at over 3.8 million nonresident visitors, 35% of the total statewide, as well as the highest nonresident expenditures at nearly $920 million. Glacier Country had 33% of nonresident visitors, and $714 in expenditures. Missouri River Country has about 3% of the nonresident visitation, and generated just under $400,000 in visitor expenditures. Southwest and Southeast Montana have similar visitation levels around 19%, but visitors in Southeast Montana expended almost $200 million more than visitors in Southwest Montana.

FIG 40. NONRESIDENT TRAVEL EXPENDITURES BY SCORP REGION, 2012



Source: Grau, 2013.

TBL 10. ECONOMIC IMPACTS OF NONRESIDENT TRAVEL SPENDING BY SCORP REGION

	CENTRAL	GLACIER	MISSOURI RIVER	SOUTHEAST	SOUTHWEST	YELLOWSTONE
TOTAL EXPENDITURES (MILLIONS)	$344.4	$714.4	$63.9	$616.6	$394.0	$919.4
INDUSTRY OUTPUT (MILLIONS)	$246.5	$471.9	$37.8	$496.3	$231.8	$627.4
JOBS CREATED	2,930	6,580	500	5,370	3,070	8,400
EMPLOYEE COMPENSATION (MILLIONS)	$58.8	$141.4	$1.7	$128.4	$67.0	$202.1
STATE & LOCAL TAXES (MILLIONS)	$28.0	$61.4	$5.0	$54.3	$28.2	$78.8

Source: Grau, 2013.

MONTANA STATE PARKS ECONOMIC IMPACT SURVEY

In 2010, Montana State Parks conducted a survey with the Bureau of Business and Economic Research (BBER) to determine the economic impact of the State Parks system. At the statewide level, nonresident park visitors spent $122.3 million, and in the process, created nearly 1,600 jobs, $41.5 million in labor income, and over $126.7 million in industry sales. This is a considerable increase over a similar study conducted in 2002 that found nonresident park visitors contributed 1,170 jobs, $28 million in labor income, and $97.3 million in industry sales. The 2010 expenditures was an increase of 36% for employment, 48% in labor income, and 30% in industry sales over 2002 levels.

Nonresident visitors spend substantially more on lodging, gasoline, and restaurants than residents when visiting state parks. Transportation fees and general retail are higher on average as well, all reflecting the generally higher dependence of nonresidents on tourism support services. Additionally, longer travel distances reported by nonresidents contribute to not only more days on the road, but also greater expenditures on everything from gas to lodging and meals. The median travel distance for residents was only 42 miles, compared to over 700 miles for nonresidents. Resident park visitors on the other hand spent slightly more on camping and incurred higher expenses preparing for their trip. On average, residents spent $58 a day, while nonresidents spent $119 a day when visiting a state park.

Total spending attributable to resident and nonresident visitors was over $289 million, up considerably (35%) from 2002 when park visitors spent $214 million. Primarily responsible for the increased spending is higher expenditures per group for both resident and nonresident visitors, larger group sizes, and 79% increase in resident visitation to Montana State Parks.

ECONOMIC CONTRIBUTIONS OF DOWNHILL SKIING

A 2010 report on the economic impacts of skiing in Montana showed that downhill skiing in the 2009–2010 winter season contributed $83 million to Montana's economy (Nickerson & Grau, 2010). Lift tickets were, on average, the most expensive item purchased by Montana residents during their ski trip followed by restaurant, bar and gas purchases. The average resident group expenditure per trip was $140.96. When averaged as a per day expenditure, the group spent $158.38 per day. Nonresident skiers spent more of their trip expenditure on accommodations than any other expenditure, but this was followed closely by lift tickets. Average group expenditures for nonresidents while in Montana were $1,272.72. When averaged as a per day expenditure, the group spent $191.09 per day, which is about 21% more than resident skiers. In addition to expenditures, nonresident travelers contributed to more than 1,000 jobs and $43 million in employee, resort, and other property income. These impacts were felt across the state in large ski resorts like Big Sky and Whitefish, as well as smaller resorts like Bridger Bowl in Bozeman and Discovery near Phillipsburg.

ECONOMIC CONTRIBUTIONS OF WILDLIFE-ASSOCIATED RECREATION

According to the 2011 FHWAR report, hunters, anglers, and wildlife-recreationists expended $145.0 billion nationally. Recreationists spent $43.2 billion on equipment, $32.2 billion on trips, and $14.6 billion on licenses and fees, membership dues, and other contributions. On average, each sportsperson spent $2,407 in 2011.

In Montana, recreationists spent $1.4 billion in wildlife-associated expenditures in 2011. Hunters had the highest expenditures at over $627 million, with a majority going to equipment expenditures. Wildife-watchers expended over $400 million, with $291 million on trip-related expenditures. Anglers expended over $339 million, with about $141 million each on trip-related and equipment expenditures.

SUMMARY

As Montana continues to change and evolve, so too does outdoor recreation participation for residents and visitors. Recreation participation reflects many elements, including population, demographics, recreation preferences, socioeconomic status, barriers and limitations, and even the kind of work that Montanans do for a living. There is no average recreationist in Montana, but we can say that there is one common attribute among recreationists: Montanans are getting outdoors in increasing numbers and frequency. With this comes a strong economic benefit, as residents and visitors plan outdoor recreation trips and spend money in local communities on supplies, lodging, fuel, and equipment. The economic contribution of outdoor recreation is a significant and vital sector of the Montana economy, and enhancing recreation opportunities through proactive planning will be necessary to continue to grow the industry while also providing for safe, accessible, and enjoyable experiences for Montanans and visitors alike.