

# Overview Section: Recreation

*Nature Based Recreation in the Rockies: The New Value of the Region's Resources*

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## THE 2011 COLORADO COLLEGE STATE OF THE ROCKIES REPORT CARD

### Key Findings:

- The average American spent 15 percent more time on leisure activities in 2003 (36 hours) compared to 1965 (31 hours).
- Today, almost half of the Rockies' lands are under the jurisdiction of public agencies.
- In the Rockies region, recreation and tourism generated \$41 billion in income in 2007 and supported 1.4 million jobs.
- Recreation and tourism represent major sources of income, from six percent of private earnings in Idaho to 22 percent in Nevada.
- Businesses involved in recreation form 10 percent of all firms in the Rockies while those in the extractive industries are less than one percent.
- The average snowboarder spent \$3,073 in the Rockies, the average skier \$3,262, the average hunter \$2,447.
- National Park visitors in 2006 expressed a willingness to pay of \$57 per day.
- In 2009 55 percent of Rockies population participated in outdoor recreation, up from 53 percent in 2008 and the highest rate in the nation.
- Wildlife viewing grew 60 percent from 1996 to 2006 as the public turned from hunting animals to viewing them.
- The greatest decline in outdoor participants from 2006 to 2009 came among youth.

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The life and culture of the people in the Rockies region, from early settlers to current communities, have always been largely dictated by their close relationship with the region's natural environment. The Rockies economy, once centered on agriculture and natural resource extraction, has now shifted towards one based upon services as well as amenity-based recreation and tourism. The beauty of the region has become an economic engine for recreational businesses and for bucolic communities hosting relocation and retirement. The transition between different uses of the region's abundant lands challenges the very idea of how Rockies' resources are to be managed and passed along between generations. Population growth and high demand for the region's recreational areas provide new challenges for conservation efforts. How and whether the Rockies can accommodate the influx of visitors and new residents while maintaining a diversified economy are questions that will define the future of the region and the way it manages its public lands. The question then remains, how can the region achieve harmony between different interests and is it even possible to strike such a balance between economy and environment?

Across the U.S., Americans spend an increasing amount of time on leisure activities and outdoor recreation. They have boosted demand for the service industry and businesses involved in nature-based recreation activities. This report will discuss the growth of the service economy in the Rockies region and the increasing significance of recreation and tourism in particular as a source of regional income, jobs, and businesses. We also show that nature-based recreation plays a central role in the recreation and tourism industry in the Rockies region. The region's rich and diverse natural environment attracts a broad range of outdoor enthusiasts, fueling its service based economy. For the purpose of the report, outdoor recreation activities are those in which participants have direct interactions with the natural resources and environment of the West. In this analysis of nature-based recreation, we follow the definition of the Outdoor Industry Foundation and include the following range of activities: biking, paddling, camping, climbing, skiing (including downhill, cross country, and telemark), snowboarding, hunting, fishing, wildlife viewing, hiking, backpacking, and trail running.

Nature-based recreation also has a significant economic impact on local communities across the Rockies. In this report, we highlight the economic vitality of counties in the region, which are defined by the U.S. Department of Agriculture as economically dependent on recreation. The counties selected in this analysis are characterized by their proximity to public land, outdoor recreational opportunities, and abundance of natural amenities.

The popularity of nature-based recreational activities has changed through time. Participation trends also vary by type of activity, place, and demographic characteristics of the population. In this report, we discuss these trends in selected nature-based recreational activities. For the purposes of this analysis, we do not include indoor activities, team-based sports, those that occur in an urban setting, and other leisure time that is not primarily dependent on the natural environment.

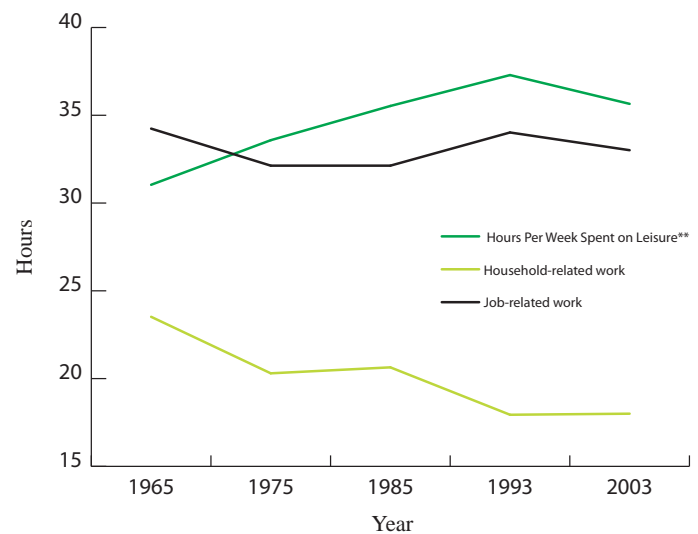
Finally, we will explore a few key issues currently related to outdoor recreation, including the actual and potential damages ill-managed outdoor recreation can have on the Rock-

ies region natural resources and environment.

### Increase in Leisure Time in the U.S.

A transformation in the American way of life has occurred over the past 40 years. Devoting less time to work has allowed Americans to spend increasing amounts of time on alternative activities, including leisure and recreation. **Figure 1** depicts the declining trends in the number of hours per week spent on work between 1965 and 2003. Work here is represented by a comprehensive measurement of hours devoted to job-related activities and household-related chores. Job-related activities include hours spent on the job, commuting to and from work, meals and breaks at work, searching for a job, and applying for unemployment benefits. Household-related work includes indoor household chores: food preparation, indoor cleaning, laundry, etc.; shopping and obtaining goods and services; and outdoor household work such as vehicle repair, outdoor home maintenance, outdoor painting, yard work,

Figure 1: Weekly Leisure and Work Hour Trends



Source: <http://www.bos.frb.org/economic/wp/wp2006/wp0602.pdf>

pet care, gardening, etc. On average, Americans spent 33 hours per week on job-related activities in 2003, compared to 34 hours in 1965. Household-related work declined more dramatically from 24 hours per week in 1965 to 18 hours in 2003. In total, the average American spent 6.8 hours less on all work activities in 2003 compared to 1965.

The decline in work time per week was largely due to a decrease in household-related work, as evidenced in the figure. Job-related hours stayed relatively constant in comparison. According to a report by the Federal Reserve Bank of Boston, time spent on job-related work by men has fallen since 1965, but an increase in the time worked by women has resulted in the constant overall trend in job-related work hours. Work around the household, however, has decreased sharply. In particular, the average American spent 6.4 hours per week less on indoor household chores and food preparation in 2003 than in 1965.<sup>1</sup> The study reports that this trend also varies by gender. While women are spending less time on household-related work, men are engaging in these activities more than they did before. Overall, however, time spent on household related chores has fallen sharply, accounting



for most of the decline in hours per week spent on work between 1965 and 2003.<sup>2</sup> Increasing affluence, technological improvements in household appliances, and evolving gender roles are the most likely causes for the decline in household-related work. These factors have allowed Americans to devote time to leisure activities. **Figure 1** also depicts the average increase in leisure time across the nation. Leisure here is defined as time spent on “entertainment/social activities/relaxing”, which includes activities such as going to movies, watching television, reading for pleasure, talking on the phone, going to parties, etc. and “active recreation”, such as playing sports, walking and exercising.<sup>2</sup> The average American spent 15 percent more time on such leisure activities in 2003 (36 hours) compared to 1965 (31 hours). The upward trends in hours spent on leisure and downward trends in the working hours of Americans have direct implications for the eight-state Rockies region. Endowed with a rich natural environment, the region is a major attraction for visitors from the U.S. and abroad who seek opportunities for recreation. It is these natural resources that are attracting tourists and shaping the economy of the Rockies.

### The Resource of the Rockies

From the glaciers of northern Montana to the deserts of Arizona, from the tall mountains to the deep canyons, the natural environment of the eight-state Rockies region is truly diverse. A variety of biota, topography and climates define multiple eco-regions as seen in **Figure 2**.

The short-grass prairie of the western Great Plains, what our report defines as the Eastern Plains Agricultural Zone of the Rockies, embodies the sense of freedom and open space that help characterize the region. From east to west across the Rockies region, the land rises from the flat eastern plains towards higher-elevation forests of fir, spruce, and aspens. Further up, the trees disappear into the daring heights of the mountain’s ridges and peaks, where only the toughest and most unique species of fauna and flora survive. These are the spectacular but fragile high alpine environments of the Rocky Mountains. They extend along the Continental Divide, what the Rockies Project defines as the “spine” of our region. The Rockies, tall and majestic, contain many peaks higher than 13,000 feet, found in Colorado, Wyoming and northern Utah; these ranges provide challenges that foster a sense of accomplishment and connection to the mountains. Many other peaks over 10,000 feet all across the Rockies also provide a range of recreational opportunities. Below tree line, evergreen-deciduous forests in the North and a variety of pines and firs in the Southern Rockies provide a canopy for large mammals including black bear, mountain lion, elk, moose, various bird species and many other life forms.

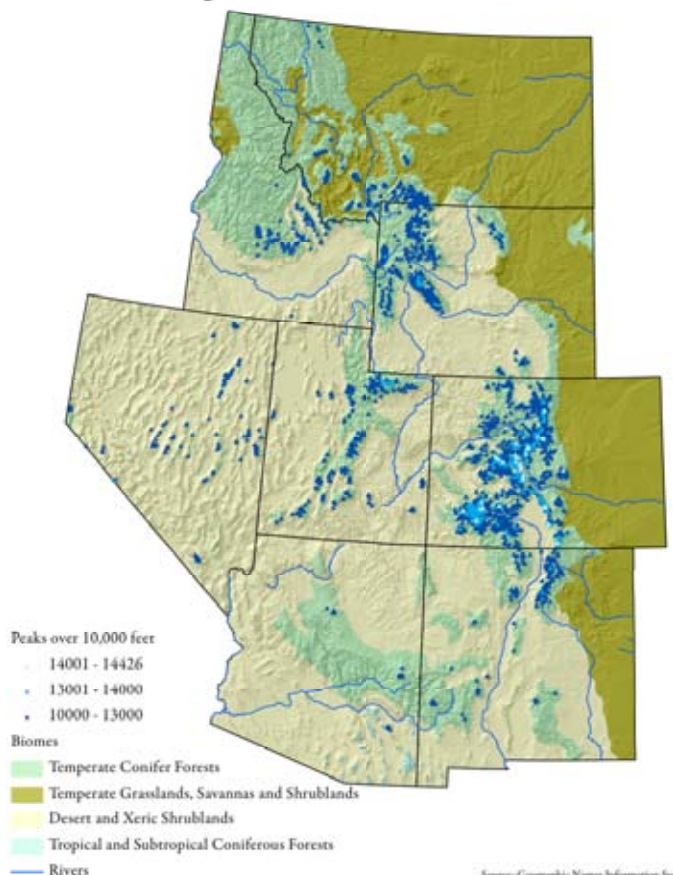
Further west, the mountains drop into the raw landscape of the North American deserts. This part of the region, defined by the Rockies Project as the “West and Southern Amenity Zone,” harbors the perpetual image of the dry and vast landscape of the Southwest. Its arid ecosystems evoke popular images of western blue skies and sunsets. Sagebrush

is among the most common flora in these lands, providing a welcoming home to pronghorn antelope and whitetail prairie dog. It is these lands that Edward Abbey declared as “the most beautiful place on Earth,” as he was witnessing an early morning in the deserts of Utah.<sup>3</sup>

The Rockies’ wild lands are home to a bountiful variety of wildlife that has captivated adventurers. The land and its animal inhabitants hold symbolic values for the region and the nation as a whole as the last standing frontiers of the American West. Regional planners and land managers have not always valued the land in its preserved natural state. The movement towards conservation of the land which provides opportunities for recreation and rejuvenation has emerged only recently with a change in the way humans view nature in the West.

The constantly evolving ways in which humans have interacted with the abundant natural resources of the Rockies has greatly affected the culture, economy, and society of the region. Although initially viewed as an obstacle to human settlement, the wild lands of the American West were also cherished as a refuge for individuals to grow both physically and spiritually away from the civilized world. In the words of the 19<sup>th</sup> century American philosopher, Ralph Waldo Emerson, “In the woods, we return to reason and faith...In the wilderness, I find something more dear and connate than in streets.”<sup>4</sup> Similar to Emerson, early preservationist John Muir recognized the need to spend time in a place largely untouched by human influence. “Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul.”<sup>5</sup> During the

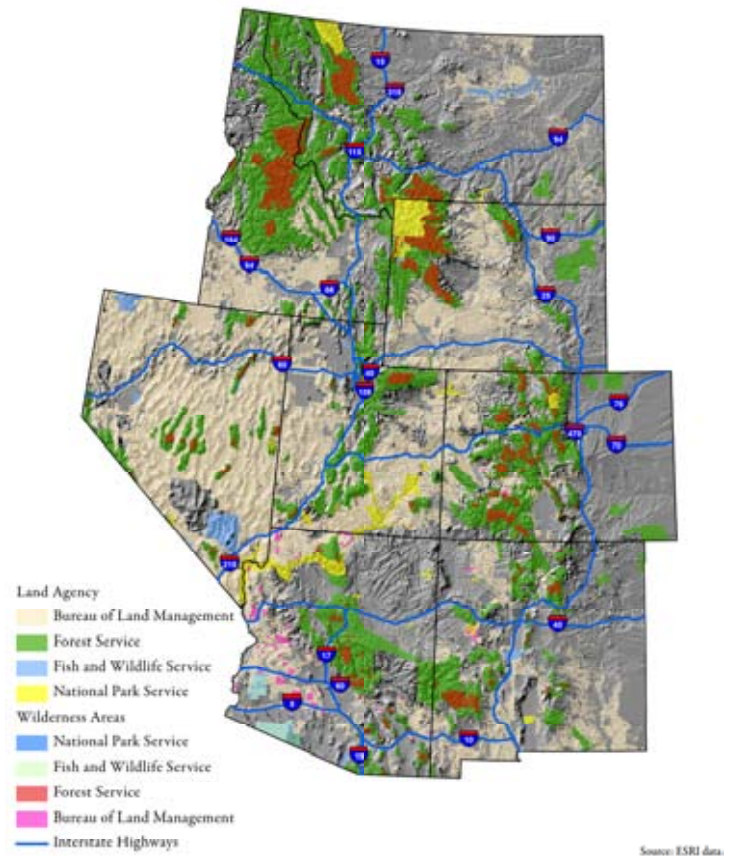
**Figure 2: The Rockies’ Resource**



time of Emerson and Muir, the concept of manifest destiny also emerged. This philosophy is founded on the idea that Americans had an apparent duty to spread civilization and democracy across the continent. In an effort to promote this goal, Congress encouraged settlement through laws such as the Homestead Act of 1862, which transferred land title from the federal government to private owners as long as the individuals showed “improvement” (or development) of the land. The federal government also encouraged resource extraction through legislation like the General Mining Act of 1872, which to this day allows private citizens to mine minerals on federal land at a minimal cost. As a result of these and similar incentive programs adopted by the federal government, Americans began to bring about profound, large-scale changes to the Rockies region, viewed by many as “progress” or “development,” but viewed by others as having negative effects on the environmental quality of millions of acres of land.

As John Muir acknowledged, “God has cared for these trees, saved them from drought, disease, avalanches, and a thousand tempests and floods. But he cannot save them from fools.”<sup>6</sup> Early environmentalists, who recognized the value of natural places, urged the federal government to place permanent protection on unique portions of the land before irreparable damage occurred. As a result of these efforts, Congress set aside large areas of land to be managed in a way that maintained the environmental quality of the land, while encouraging human enjoyment of the natural world. John Muir was at the forefront of this movement, success-

Figure 3: The Rockies' Public Lands



fully lobbying for permanent federal protection of Yosemite National Park. Similarly, F. V. Hayden advocated for the protection of the majestic and wondrous natural places that were untrammelled by humans. His report to Congress in 1871 led to the designation of Yellowstone National Park by President Ulysses S. Grant in 1872.<sup>7</sup> The establishment of national parks, national forests, and other wild areas encouraged Americans to explore these areas. The protection of such areas within the public domain helped conserve the bountiful natural resources and environment of the Rockies. It was Arches National Park (then designated as a national monument), that inspired those famous words by Ed Abbey.

Today, almost half of the Rockies' lands are under the jurisdiction of public agencies, as illustrated in **Figure 3**. A mix of national parks, wilderness areas, national forests and Bureau of Land Management (BLM) lands, extend along the spine of the Rocky Mountains and across the Rockies desert environments. The BLM and the Forest Service manage 25 percent and 17 percent of all land in the Rockies respectively. Much of this land is open to multiple uses, including recreation, grazing, energy development, and timber harvesting. In places where recreation is allowed, a wide variety of outdoor enthusiasts use these lands, including campers, boaters, hunters, anglers, off-road vehicle drivers, climbers, skiers and snowboarders. Other treasured landscapes are protected under various protective designations, including national parks, monuments, historic sites, memorials, and wild and





scenic rivers. These places are under the Department of the Interior's National Park Service and account for two percent of the region's land. Restrictions on certain recreational pursuits vary by national park. Public lands that are prime habitats for wildlife and plants are additionally protected within the National Wildlife Refuge System, managed by the U.S. Fish and Wildlife Service. These lands contain around one percent of total land acres in the Rockies.<sup>8</sup> Recreational pursuits on the refuges that allow them include hunting, fishing, and wildlife viewing. Some of the public lands of the West are designated as wilderness areas, which cover four percent of all land in the Rockies.<sup>9</sup> Wilderness areas differ from other public land designations as they exclude any activities which require the use of motor vehicles, motorized equipment or mechanical support. Nevertheless, wilderness areas provide many recreational opportunities such as hiking, camping, horse packing, hunting, and fishing.

### Rockies' Recreation Economy: The Natural Capital of the Region

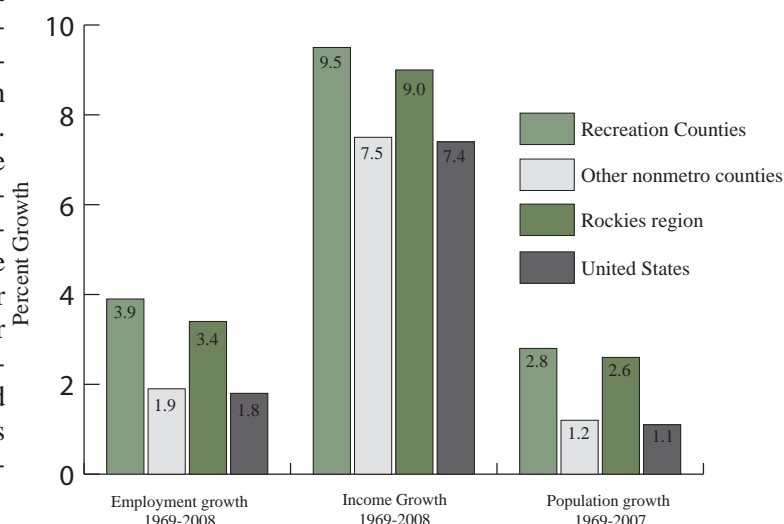
The ebb and flow of population and economic prosperity in the Rockies have always been dependent on the region's rich natural resources and their management. A dramatic transformation of the region's culture and economic opportunities has changed the way entrepreneurs see the region. The Old West, abundant in fertile land, timber, and energy resources, is increasingly being recognized for its other values, embedded in its natural environment. The scenic landscape and diverse recreational opportunities today largely define the region. They attract visitors, new residents, retirees, and second homeowners, who add to the Rockies' social mix and economic ventures. Fewer people come to the West today to extract the region's resources than to seek out deep powder, raging white water, abundant wildlife, scenic trails, tall peaks, and open space. What is their economic significance, however, and do the Rockies recreational opportunities, embedded in the region's public lands, deserve protection?

The vast numbers of people who come to recreate in the region's public lands create demand for recreation-related goods and services. People who participate in outdoor recreation support a variety of industries through their spending. They purchase gear, food, lodging, means of travel, and receive training from professional instructors. By spending money for outdoor recreation, hikers, campers, and skiers alike "vote with their dollars" and contribute to the economic value of the Rockies' natural resources left in their natural state as "amenities" rather than extracted as natural resources.

Our report shows that lands which provide recreational opportunities are an economic asset to the region, a form of "natural capital." These lands produce a high demand for goods and services. In the Rockies region, recreation and tourism generated \$41 billion in income in 2007. During the same year, the sector supported 1.4 million jobs in the Rockies.<sup>10</sup>

Outdoor recreation is a significant portion of the

Figure 4: Growth in Recreation Counties



Source: Regional Economic Information System, Bureau of Economic Analysis, US Department of Commerce

broader recreation and tourism industry. In 2006, outdoor enthusiasts spent \$44 billion dollars in the Rockies' economy, generating revenue and demand for a high quality environment and visitor services.<sup>11</sup> Visitors to national parks and national forests indicate that they are willing to spend \$57 per person per day to see these places, above and beyond the fees they pay to access these lands.<sup>12 13</sup> Furthermore, many counties in the region are economically dependent on recreation. Such counties derive the majority of their employment and income from recreation-related industries and have a high proportion of housing units for seasonal or occasional use.<sup>14</sup> Analysis of local economies indicates that these counties have experienced higher growth in income, employment and population than other rural areas, the region, or the nation as shown in **Figure 4**. The growing recreation sector is part of the emerging economy of the New West, defined as growth driven by natural amenities, quality of life, scenic vistas, and leisure activities. Today, the Rockies region's "natural capital," constitutes a major pillar of the Rockies' economic structure. The rapidly rising economic value of the recreation and tourism industry in the Rockies implicitly depends upon proper management and the conservation of the region's attractions, mainly its environmental quality and recreational opportunities.

Despite its strong presence, recreation and tourism is not an economic panacea. Under pressure from population growth, land in the rural West experiences continued development, replacing agricultural land and open space. The commercialization of the tourism experience can degrade the cultural characteristics of the bucolic communities that host thousands of visitors, simultaneously becoming centers of low-paid service jobs. Many workers in such towns as Aspen, Telluride, Sun Valley, Park City, and Jackson struggle to afford the high rent and housing prices and are forced to commute larger distances.<sup>15</sup> Recognizing the economic importance and implications of recreation and tourism in the Rockies, many argue the need for increased planning and management. Although they are not as central



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to the economy as recreation, traditional uses of the land such as agriculture, mining, and light manufacturing are still part of the life, culture, and historic heritage of the Rockies. An economy solely based on recreation and tourism lacks diversity and the economic health and resiliency that come with it.

#### *Changing Magnitudes of “Resource Use”*

Trails and recreation areas today are often spread over land that historically hosted mining operations and other forms of resource extraction. Communities where gold, silver and copper mining were central activities are increasingly recognizing the aesthetic and economic values of recreational opportunities and natural environments. The local government of Butte, Montana, once a mining town, constructed a trail that runs over a mine remediation site and along Silverbow Creek, creating a public amenity for local residents and visitors.<sup>16</sup> Twenty years ago, residents of Leadville, Colorado could have hardly imagined that today the town would be positioning itself as a recreational haven. The county commissioners, the newly formed recreation department, and the local recreation-avid community are working hard to transform Leadville’s landscape and economy. They are building bike trails, cross-country skiing paths, a terrain park for skiers and snowboarders, and multiple other recreation areas.<sup>17</sup> As these examples show, a transition is taking place in the Rockies, where cultural identities and economic strategies are increasingly based on recreation and scenic landscapes.

This transition from extraction to recreation can also provide some tangible hidden dangers. In 1872, Congress passed the General Mining Law in an effort to encourage the growth of the mining industry. According to the General Mining Law, any individual that discovers economically valuable minerals on public land has the right to mine that area for \$2.50 to \$5.00 an acre, an amount which has not changed since 1872.<sup>18</sup> As a result, thousands of wildcat

mines were developed and then abandoned, creating numerous unmarked safety hazards for recreational users today. Without knowing the terrain, recreationists are subject to numerous dangers from these mines, included but not limited to, asphyxiation, exposure to hazardous chemicals and gases, and instable rock structures. These hidden hazards are a dangerous reminder of the past. Although this is a concern for those using the former mining areas, the shifting economy promises a positive future for the Rockies region, with recreationists enjoying the outdoor environment and strengthening the recreation economy in the Rockies.

The role of the extractive industries in the Rockies’ economic structure, although still significant, has declined since 1969. **Figure 5** depicts the transition away from traditional uses of the land for agriculture and mining and towards a service-dominated economy in the Rockies. In 2001, the service industry, the highest source of income in the Rockies, generated \$125 billion. Service businesses include those involved in recreation and tourism as well as enterprises which provide health, legal, education, finance, insurance, and real estate services. The dramatic rise in income from this sector was the largest contributor to economic growth in the region between 1969 and 2001. Data from the U.S. Bureau of Economic Analysis indicate that service businesses brought 48 percent of all new income generated in the Rockies during this time period.<sup>19</sup> These trends reflect the transition in the Rockies region towards a service based economy.

In comparison, mining, agriculture, and forestry collectively added only three percent to the new income generated between 1969 and 2001.<sup>20</sup> As mechanization of these industries has reduced the need for human labor, local communities have turned to other sources of income. The boom and bust character of extractive industries has also made them an unstable source of growth. Only three percent of Western counties could today be classified as economically dependent on resource-extraction.<sup>21</sup> In comparison, 31 percent of all counties in the eight-state Rockies region are

classified by the United States Department of Agriculture as economically dependent on recreation and tourism.

Retirees drawn to the region for its natural environment and slower pace of country living have become another major aspect of the region's economy. Income derived from non-labor sources such as dividends, interest, and rent has seen a rapid increase as witnessed by **Figure 5**. Nineteen percent of the growth in the region's personal income was generated by non-labor income. Retirees can also contribute to the local economy by increasing demand for services such as health care, finance, insurance and real estate.

### *The Economic Impact of "Recreation and Tourism"*

Tourism traveling has been growing worldwide. Rising numbers of international travelers have resulted in increases in demand for tourism-based services. Before the economic downturn, international traveling stood at an all-time record of 924 million tourist arrivals in 2008.<sup>22</sup> The U.S. economy, in particular, is strongly supported by tourists' expenditures as the U.S. ranks among the most popular destinations for travelers. In 2008, the nation was the second most visited destination with 57.9 million international arrivals, surpassed only by France, with 79.2 million.<sup>23</sup>

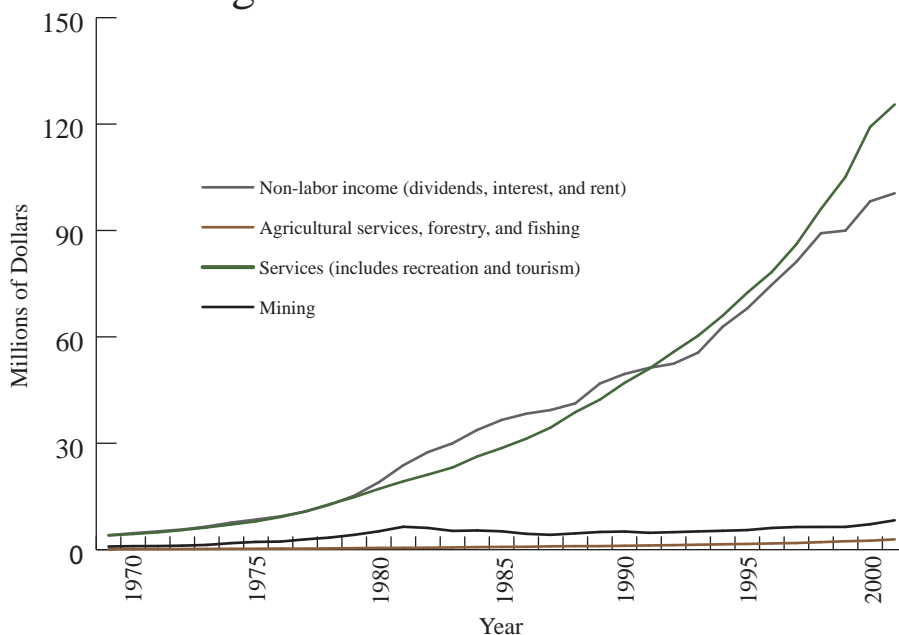
The American West has also always been a place for travel and exploration for travelers, from early 19<sup>th</sup> century explorers such as William Clark, Meriwether Lewis, and Zebulon Pike to the modern automobile driving tourist. Today's visitors to the region spend money and support a variety of businesses. Western communities have long felt and recognized the economic benefits of tourism.<sup>24</sup> It has had a significant impact on the economy of the Rockies, as it has had on the economy of the nation. The Rockies economy is today comprised of a diverse mix of service, construction, and manufacturing sectors. A look at how these sectors contribute to income, jobs, and businesses provides a comprehensive picture of the regional economy, one in which recreation and tourism plays a major role.

Tourist spending is dispersed across various sectors of the economy and no single definition of a "tourism industry" exists. Our report defines the "recreation and tourism industry" broadly as a combination of industry groups which produce goods and services consumed by travelers and local residents who participate in recreation and other leisure activities. Recreation and tourism includes all arts, entertainment, and recreation services, as well as all accommodation and food service businesses. In addition, the industry encompasses some businesses from other major sectors which support tourism and leisure activities. These include air, water, and rail transportation, sightsee-

ing transportation services, motion picture industries, and retail trade. Many of these sectors are not exclusively focused on tourism (for example, only a portion of retail trade is focused on goods which supply tourists and outdoor enthusiasts). The U.S. Commerce Department's Bureau of Economic Analysis provides estimates for the national average percentage contribution of tourism in each of these sectors. These percentages have been used to estimate how much the transportation, motion picture, and retail trade sectors benefited from tourism to estimate the total recreation and tourism economic impact.

**Table 1** shows how the recreation and tourism industry compares to other major industries in the nation, region and each Rockies state according to their contribution to total private earnings in 2007. In the U.S., six percent of national private earnings were generated by recreation and tourism services. In comparison, the Rockies region relied more heavily on recreation and tourism as a source of income. Businesses involved in recreation and tourism collectively generated close to nine percent of all income in the Rockies. Tourists and local residents who participate in leisure activities are, thus, vital to the economy of the region. The recreation and tourism industry closely followed the largest sectors in the Rockies economy as a source of income. Construction generated the most income, at 12 percent, in the rapidly growing Rockies region, which experienced a population growth rate of 18 percent between 2000 and 2007, above the national average of seven percent.<sup>25</sup> Professional, scientific and technical services, comprised of high-paid consultants such as lawyers, designers, architects, engineers, advertising agencies and others, brought 11 percent of the total income to the region, followed by the finance insurance and real estate industry, at 10 percent and manufacturing at nine percent.

**Figure 5: Income Trends in the Rockies**



Source: Regional Economic Information System, Bureau of Economic Analysis, US Department of Commerce Table SA25



**Table 1: Percent of Total Private Earnings in Selected Industries, 2008**

	Recreation & Tourism	Extraction industries	Manufacturing	Construction	Finance, Insurance, Real Estate, and Rental and Leasing	Professional, scientific, and technical services
United States	6	2	13	8	11	11
Rockies	9	3	9	11	10	11
Arizona	7	1	10	11	11	10
Colorado	6	3	8	10	11	14
Idaho	5	2	15	12	7	10
Montana	7	5	7	13	8	8
Nevada	22	2	5	15	9	8
New Mexico	7	6	7	10	7	15
Utah	6	2	14	11	9	10
Wyoming	8	21	5	14	6	6

Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, 2008

As illustrated in **Table 1**, the recreation and tourism sector represents a significant source of income for individual Rockies states as well, ranging from six percent of private earnings in Idaho to 22 percent in Nevada. In Nevada, recreation and tourism is dominated by gambling and golfing. Gambling accounts for 44 percent of the total revenue in the arts, entertainment, and recreation industry and golf courses account for eight percent of the same industry.<sup>26</sup> This inflates Nevada's recreation and tourism private earnings to 22 percent of private earnings, leading the Rockies region. Wy-

oming stands out because extractive industries comprise the second largest source of income, generating eight percent of total private earnings, more than in any other state in the Rockies. Oil and gas extraction continue to dominate the extraction industries in Wyoming, followed by coal mining.

Wyoming, however, also stands out with its strong recreation and tourism industry, based on its natural amenities. The volcanic activity of Yellowstone and the uplifting of the North American Tectonic Plate that continuously reforms the Tetons, give the region its unique geology. Combined with its rich wildlife and vegetation, the state attracted 7.3 million overnight visitors in 2009, 83 percent of whom state that their primary purpose of visiting is the state's natural environment.<sup>27</sup> Wyoming's recreation and tourism industry generated \$1,889 per capita in 2007, second only to Nevada among Rockies states. The lowest per capita income from recreation and tourism was observed in Idaho at \$990 in 2007.<sup>28</sup>

Employment in recreation and tourism businesses in 2007 stood at 14.6 million jobs in the United States and 1.4 million in the Rockies. The industry was the largest employer in the region in 2007, as depicted in **Table 2**. Recreation and tourism accounted for around 11 percent of all jobs in the Rockies in 2007, indicating the central importance of the industry in the economy of the region. Businesses involved in this industry employed more people than other major sectors of the economy. Finance, insurance, and real estate were the second highest source of jobs, at around 10 percent, followed by construction, at eight percent, and professional services, at seven percent. In the nation, recreation and tourism supported roughly eight percent of all jobs, coming second only to finance, insurance, and real estate services. Across the Rockies states, recreation and tourism was among the highest sources of employment. In Montana, Nevada, and New Mexico, the industry generated more jobs





## Case Study: Where to Draw the Boundaries? A Look at Skiing and Public Lands

As more and more members of the population travel to natural areas, places that were previously isolated become overcrowded. Coupled with this reality, certain outdoor enthusiasts' desires to explore the unexplored create conflict with those who support other land uses or have differing views on land's values. This is certainly the case with ski areas across the Rockies region. While businesses look for new market opportunities and participants seek new territory, the resulting land grab begs the questions: What is the limit of expansion? How far can (and should) nature-focused recreationalists push the boundaries of where they go and the limits of what they can do?

The majority of major ski resorts, particularly those located in the Rockies region, are operated on public land under a "special use" permit. It is therefore within the discretion of the federal agency managing the area to supervise land use, including the acceptance or denial of proposed expansion plans. Historically ski resorts have been granted requests to develop; although only after an environmental impact statement is produced.

In November of 2009, the Forest Service surprised the Colorado ski industry, when it rejected Crested Butte's request to expand the skiable terrain in the area by 262 acres.<sup>1</sup> This decision stands out as the first time when a federal agency didn't conduct any assessment of potential environmental impacts and instead flat out rejected a ski area's expansion plans.<sup>2</sup> Despite the Forest Service's insistence that the decision will not be under review, many ski industry members and government officials are fighting the ruling, as they fear that the result will set a new precedence that will severely damage future economic opportunities for the ski industry.

Backcountry skiers are an example of a group of athletes that are constantly pushing the limits of where they can recreate. In the words of Jon Schick, long time heli-skier and owner of High Mountain Heli-Skiing, "I often hear from some of the guests: best day of their lives".<sup>3</sup> A more detailed look at the current dilemma facing High Mountain Heli-Skiing highlights the tension that exists between differing values as recreationalists push the boundary of where they can go. The conflict is often more intensified as it occurs in remote locations that are not primarily established as ski areas. There are eight operators that are members of the Heli-Ski U.S. Association, a nonprofit corporation that "represent(s) the very best helicopter skiing operators in the United States".<sup>4</sup> Of the eight operators, five of them are located within the Rockies region (see endnote). High Mountain Heli-Skiing, based in Jackson Hole, Wyoming, is one of these premier operators. Owner since the beginning in 1974, Jon Schick now faces the possibility of losing his business as environmental groups have greatly restricted the places he can operate and the number of people he can take on any given day.

When the Wyoming Wilderness Act was passed in 1984, the company lost the ability to operate in roughly a third of their terrain as the land was set aside for conservation purposes.<sup>5</sup> As a result, the company was now able to operate in 305,000 acres. In November of 2004, the Forest Service increased the number of skier days to 1,200.<sup>6</sup> This decision upset local environmental groups who felt that the operation was causing significant ecological harm, particularly in the Palisades Wilderness Study Area, which is located on the border of Idaho and Wyoming just south of Jackson.<sup>7</sup>

In response, Earthjustice, along with other conservation groups, sued the Forest Service, arguing that the approval was in violation of The Wilderness Act.<sup>8</sup> Under the Act, wilderness study areas must be managed "in a manner so as not to impair the suitability of such areas for preservation as wilderness."<sup>9</sup> The environmental organizations successfully argued in court that in order to comply, the Forest Service needed to limit skier days to 100, which is the number permitted in 1984.<sup>10</sup>

The outcome forced High Mountain Heli-Skiing to operate in the less restricted 169,000 acres outside of the Palisades area and to dramatically reduce skiing in the wilderness study area. According to Jon Schick, this decision is incredibly destructive for his company as he argues that 98 percent of what he deems to be skiable terrain is located in this area.<sup>11</sup> Jon Schick's dismay at the situation he is now confronted with is only exacerbated by his view that he is not the greatest contributor to environmental harm in the area. He draws attention to the politic factors that prevent conservation groups from attacking larger lobbying powers, such as off-road vehicle users.

This case study underscores the common clash between recreationalists and conservationists. Although nature-based users are considered to be less detrimental to the ecological quality of the land when compared with extraction-based industries, they still do impact the environment. The result is a confrontation between differing, though equally worthy, values of land use: The perspective of recreationalists who seek to explore untracked territory and experience the natural world through an exhilarating experience. At times in conflict with this view, conservationists seek to protect the land for its ecosystem services and wildlife habitat. This case is just one, among many, that the state and federal government will be responsible for mitigating in the hopes of balancing multiple interest groups and unique values concerning public land management.

<sup>1</sup> Rappold, R. Scott. 2009. Crested Butte divided over its future. *The Gazette*. December 5. <http://www.gazette.com/news/town-90318-butte-crested.html#ixzz14gYY7yky>

<sup>2</sup> Rappold, R. Scott. 2009. Crested Butte divided over its future. *The Gazette*. December 5. <http://www.gazette.com/news/town-90318-butte-crested.html#ixzz14gYY7yky>

<sup>3</sup> Schick, Jon. High Mountain Heli-Skiing. Accessed on November 3, 2010. <http://www.heliskijackson.com/>

<sup>4</sup> The group is based in Utah. The 8 operators are Chugach Power Guides (AK), Points North Heli (AK), Telluride HeliTrax (CO), Sun Valley Heli-Ski (ID), Ruby Mountains (NV), Powderbird Guides (UT), North Cascade Heli (WA), and High Mountain Heli-Skiing (WY).

<sup>5</sup> Helicopter Skiing Association and Guide Directory. "Who we are." Accessed on November 3, 2010. <http://www.ushelisking.com/index.php/home-mainmenu-1/who-we-are>

<sup>6</sup> Hatch, Cory. 2007. Heli-skiing deal reached. *Jackson Hole News and Guide*. February 9. [http://www.jhnewsandguide.com/article.php?art\\_id=1424](http://www.jhnewsandguide.com/article.php?art_id=1424)

<sup>7</sup> Royster, Whitney. 2006. Groups file suit against heli-skiing. *Star-Tribune*. January 11. [http://trib.com/news/state-and-regional/article\\_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html](http://trib.com/news/state-and-regional/article_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html)

<sup>8</sup> Royster, Whitney. 2006. Groups file suit against heli-skiing. *Star-Tribune*. January 11. [http://trib.com/news/state-and-regional/article\\_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html](http://trib.com/news/state-and-regional/article_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html)

<sup>9</sup> Earthjustice was joined by The Greater Yellowstone Coalition, The Jackson Hole Conservation Alliance, The Wyoming Wilderness Association, The Sierra Club, and two citizens from Idaho.

<sup>10</sup> Royster, Whitney. 2006. Groups file suit against heli-skiing. *Star-Tribune*. January 11. [http://trib.com/news/state-and-regional/article\\_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html](http://trib.com/news/state-and-regional/article_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html)

<sup>11</sup> Wilderness Act

<sup>12</sup> Royster, Whitney. 2006. Groups file suit against heli-skiing. *Star-Tribune*. January 11. [http://trib.com/news/state-and-regional/article\\_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html](http://trib.com/news/state-and-regional/article_09441cf7-9fcf-5eaa-a266-834a0bc1f91b.html)

<sup>13</sup> Hatch, Cory. 2007. Heli-skiing deal reached. *Jackson Hole News and Guide*. February 9. [http://www.jhnewsandguide.com/article.php?art\\_id=1424](http://www.jhnewsandguide.com/article.php?art_id=1424)

**Table 2: Percent of Total Employment in Selected Industries in the Rockies, 2007**

	Construction	Finance Insurance and Real Estate	Professional, Scientific and Technical services	Mining, Forestry, Fishing and Agriculture	Manufacturing	Recreation & Tourism Employment
United States	6	9	7	1	8	8
Rockies	8	10	7	2	5	11
Arizona	8	11	6	1	6	9
Colorado	8	11	9	2	5	9
Idaho	9	9	6	2	8	7
Montana	9	8	5	3	4	9
Nevada	9	11	5	1	3	22
New Mexico	7	7	7	3	4	9
Utah	8	12	6	1	8	7
Wyoming	9	8	4	9	3	8

Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, 2007

than any other economic sector. In every state in the Rockies as well as the region itself, recreation and tourism employed a larger proportion of workers than in the traditional "extractive" industries of mining, forestry, fishing, and agriculture. This is convincing evidence of the current fundamental transition in the region to an amenity-based economy.

Businesses directly involved in the recreation and tourism industry make up a diverse mix of retail, transportation, entertainment, accommodation, and food establishments. In 2007, recreationists and travelers supported 59,927 businesses in the Rockies region and 812,802 in the nation.<sup>29</sup> **Table 3** presents the total number and share of businesses among the recreation sector versus extractive industries. These firms

**Table 3: Establishments in Recreation and Extractive Industries, 2007**

Region	Recreation and Tourism (percent of total)	Extractive Industries (Mining, Forestry, Fishing, Hunting and Agriculture) (percent of total)
United States	10.5	0.3
Rockies	10.2	0.3
Arizona	10.0	0.1
Colorado	9.8	0.2
Idaho	9.5	1.1
Montana	12.8	1.1
Nevada	11.7	0.1
New Mexico	11.1	0.1
Utah	8.3	0.1
Wyoming	11.3	0.4

Source: County Business Patterns, 2007

accounted for 10 percent of all businesses in the Rockies and 11 percent in the nation. In contrast, less than one percent of all establishments occurred in the extractive industries in the Rockies and the nation. Interestingly, recreation-related businesses represented an equal proportion of total number of establishments in the U.S. and the Rockies region, although recreation brings a higher portion of income in the Rockies than the nation. This implies that recreation businesses in the Rockies bring a higher proportion of total income than their counterparts across the nation. Thus, business establishment data confirm the importance of amenity-based economic activity in the Rockies. In all Rockies states, more than eight percent of business establishments were based on recreation and tourism services in 2007.

The concentration of businesses, jobs and income in the recreation and tourism industry provides evidence for its major economic significance. Leisure activities exclusively based on outdoor recreation and contact with nature are also an important contributor to the Rockies economy.

### *The Economic Impact of Nature-Based Recreation*

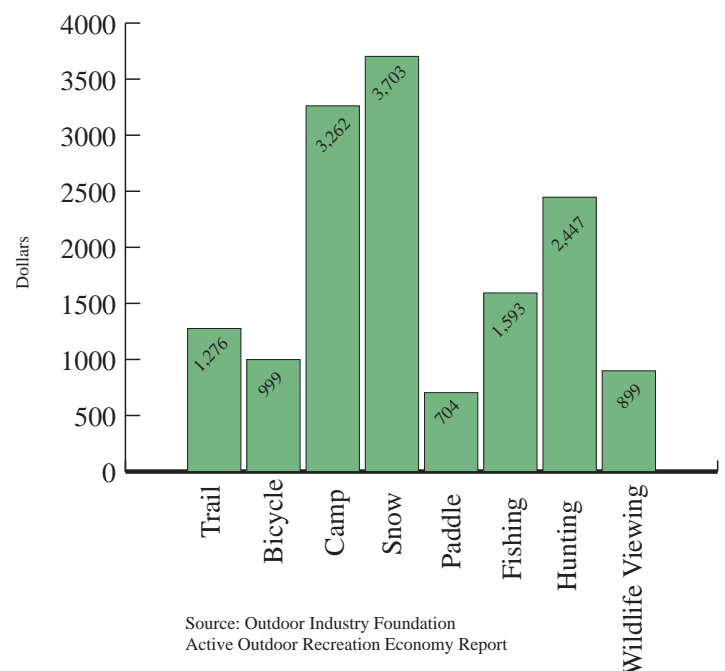
The outdoor recreation sector represents these particular activities within the broader recreation and tourism industry which are exclusively based on active outdoor recreation (the remainder being based roughly on indoors location and character). The Outdoor Industry Foundation defines active outdoor recreation as biking, paddling, camping, climbing, skiing (including downhill, cross country, and telemark), snowboarding, hunting, fishing, wildlife viewing, as well as the use of trails for hiking, backpacking, and trail running.<sup>30</sup> People spend money to engage in these outdoor activities, which circulates throughout the economy, creating a ripple of secondary and tertiary impacts of income and job-generating activity. Total spending by participants in active outdoor recreation in 2006 stood at \$352 billion in the nation.<sup>31</sup> In the Rockies, these activities generated \$44 billion revenue in the same year.<sup>32</sup> The amount of revenue these outdoor activities brought to the region outstripped revenue generated by oil and gas extraction in the Rockies, which stood at \$38.7 billion in 2007.<sup>33</sup>

Some of the dollars that exchange hands between customers and retailers eventually make their way through

the retailer's suppliers, manufacturers, producers of raw materials, investors, financiers, landowners, and others. Accounting for these secondary effects, the total revenue generated by active outdoor recreation in the nation stood at \$590 billion, compared to \$50 billion in the Rockies.<sup>34</sup> The largest single spending category out of all outdoor activities was camping, partially due to the large number of campers. In 2006, total spending by campers, stood at \$14.8 billion.<sup>35</sup>

These economic contributions comprise the spending of a diverse mix of recreationists, adrenaline junkies, and outdoor enthusiasts. **Figure 6** illustrates the way economic contribution varies by the type of outdoor activity. The average skier/snowboarder brought \$3,703 to the regional economy, more than the average camper, who generated \$3,262 in revenue. While campers spend money on campgrounds, lodging and RV maintenance, skiers and snowboarders purchase mountain passes, supporting mountain resort operations. They also often spend money in the surrounding developments, on food, lodging and souvenirs. Hunters represented the smallest category of outdoor participants according to the report by the Outdoor Industry Foundation.<sup>36</sup> However, by purchasing licenses, gear and transportation, every hunter generated the third highest amount of spending, at \$2,447, compared to other outdoor activity groups. This also does not take into account the beneficial effect that hunters have had on conservation.

Participation in outdoor recreation is also a prominent source of jobs in the Rockies. In 2006, outdoor enthusiasts supported 702,651 jobs in the region,<sup>37</sup> roughly 18 times more than total employment in oil and gas extraction during the same year.<sup>38</sup> Compared to the 1.4 million jobs supported by the recreation and tourism industry, this estimate only includes job generated by outdoor recreation activities and the spending associated with them. The largest supporters of employment in the region were campers, skiers and

**Figure 6: Total Annual Spending per Participant by Outdoor Activity, 2006**Source: Outdoor Industry Foundation  
Active Outdoor Recreation Economy Report



snowboarders, and hunters, as shown in **Figure 7**. The winter sport industry stands out as the highest source of revenue and employment among outdoor activities. Every thousand skiers and snowboarders generated 54 jobs in 2006. Hunting and camping activities were other major sources of employment in the region, generating 50 and 47 jobs for every thousand participants respectively. When the location of the various types of outdoors activities is considered, such job generation often is a major share of a county's total employment and economic activity.

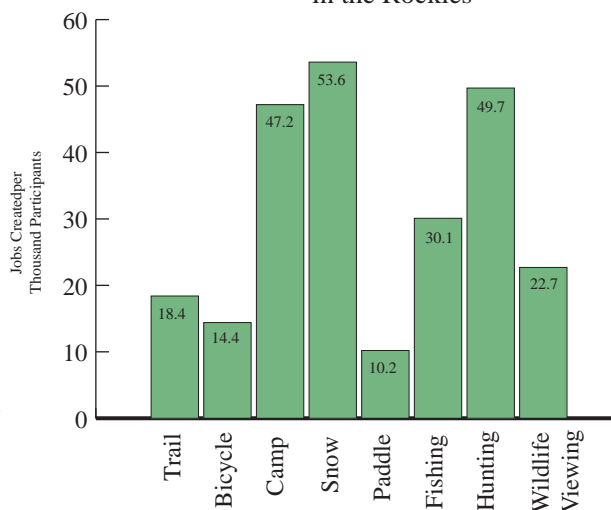
Economic impacts, measured by spending and jobs generation by outdoor enthusiasts even within a specific recreation sector varies considerably across the Rockies. For example, those who engage in trail, camp, snow, paddle, and bicycling activities, have significantly different economic impacts, as depicted in **Figure 8** and **Figure 9**. Across all Rockies states, every outdoor enthusiast generated \$1,897 in revenue on average in 2006. Every thousand participants in outdoor recreation created 26 jobs on average for all Rockies states. Wyoming stands out among other states, as outdoor enthusiasts there generate five times as much revenue and jobs compared to the rest of the Rockies. Visitors to Wyoming spent more on food, drinks, transportation, and lodging than the average camper tourist in the Rockies.

Teton County, home to the resort town Jackson Hole, Wyoming and a gateway to Grand Teton National Park and Yellowstone National Park, experienced the most spending and jobs generated by tourists out of all counties in Wyoming.<sup>39</sup> The majority of visitors to the state stayed for multiple nights, as the number of overnight trips in the state accounted for 54 percent of the total number of trips, compared to an average of 48 percent overnight stays for the rest of the Rockies. Visitors who stay longer spend proportionately more on local services. Of the many overnight visitors to the Yellowstone area, 26 percent, come from Colorado, Utah, and South Dakota.<sup>40</sup> These tourists are compelled to drive through the state, thus spending more on transportation. In addition, the abundance of public lands in the area and small number of second homes leads travelers to stay at local lodging businesses. It is unclear whether this is a positive trend for Teton County. Its epicenter, Jackson Hole, is heavily based on recreation and tourism. The town has long forgone other sectors of the economy and the vitality that usually comes with a diverse mix of business enterprises.

### Willingness to Pay

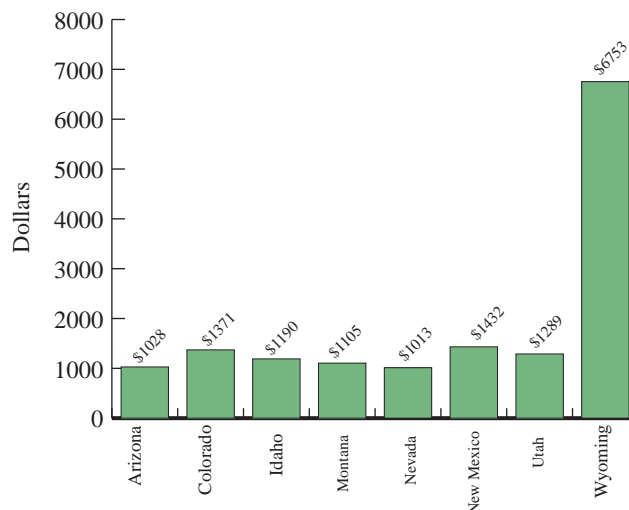
Skiers, hikers, and bird-watchers might be deriving more value from experiencing America's wild lands than the actual money they pay to be on public land. This raises questions about the appropriate price of access to public lands, as federal land agencies are strapped for cash. Time spent outdoors provides benefits such as exercise, spiritual rejuvenation, solace, inspiration, education of youth, etc., that are hard to measure. The value of recreation is an important indicator of social welfare and must be included in cost-benefit analyses regarding public lands and recreational opportunities in the Rockies. Surveys of visitors on public lands pro-

Figure 7: Jobs Created per Thousand Participants in the Rockies



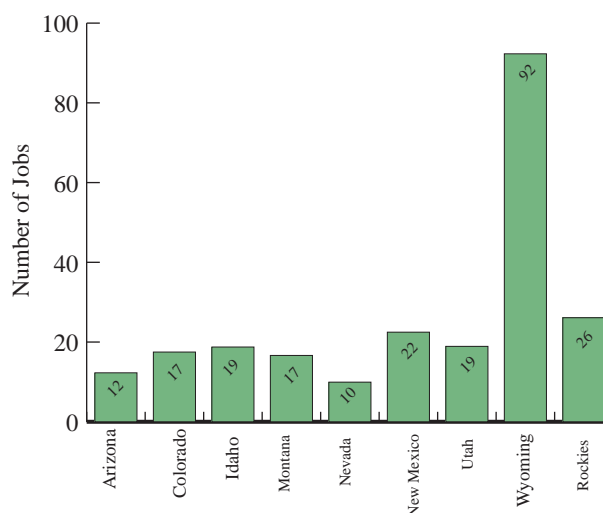
Source: Outdoor Industry Foundation, The Economic Contribution of Active Outdoor Recreation – Technical Report on Methods and Findings, 2006

Figure 8: Spending per Participant in Trail, Camp, Snow, Paddle and Bicycling in the Rockies, 2006



Source: Outdoor Industry Foundation, The Active Outdoor Recreation Economy, State Level Technical Report, 2006

Figure 9: Jobs Generated per Thousand Participants in Trail, Camp, Snow Paddle and Bicycling, 2006



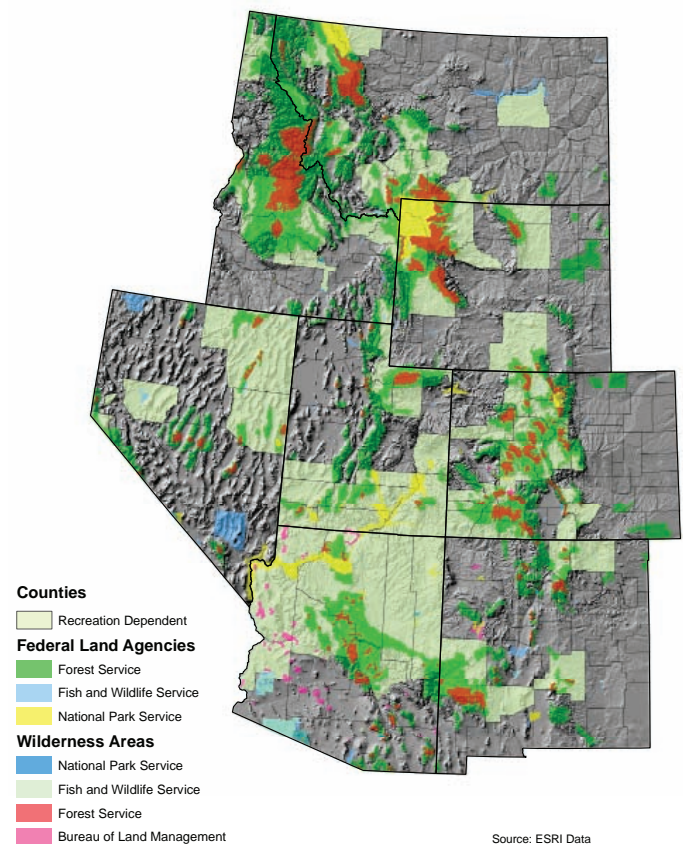
Source: Outdoor Industry Foundation, The Active Outdoor Recreation Economy, State Level Technical Report, 2006

vide an estimate for the total amount that people are willing to pay for recreation. A compilation of these data for National Parks shows that on average, each visitor is willing to pay \$57 per day (measured in 2008 dollars) for visiting park land in the Intermountain region (which along with the Rockies region included North Dakota, South Dakota, Nebraska, and Kansas).<sup>41</sup> In 2009, almost 43 million people visited national parks in this region.<sup>42</sup> This indicates that the approximate value of parks in the intermountain region is \$6.7 million per day. Similar surveys conducted on Forest Service lands indicate that visitors there are willing to pay the same amount as those in national parks. On average, each visitor to national forests in the Intermountain region is willing to pay \$57 per day<sup>43</sup> to do a myriad of activities including camping, downhill skiing, snowmobiling, and others. Surveys conducted for U.S. Forest Service land between 2005 and 2009 indicate that about 21 million tourists on average visit national forests in the Intermountain region every year.<sup>44</sup> Thus, the approximate total value of these areas is \$3.3 million per day.

### *The Impact of Nature-Based Recreation on Local Communities*

The rich natural environment of the Rockies is an important economic asset not only to the region as a whole, but for individual communities within the region. The wide-stretching public lands that characterize the West hold in-

Figure 10: Recreation Counties



## Case Study: The History of Railroads and National Parks

Opportunities for play, solitude and spiritual rejuvenation are important to the economic vitality of the region and the nation today, as well as in the past. Transcontinental railroads were the first to make wide-scale western travel possible, and the first to benefit from it. By the end of the 19<sup>th</sup> century tourism had become an important part of the railroad industry. Transcontinental rail companies began producing calendars, brochures, posters, and magazines, which emphasized the natural attractions of the West, in an effort to increase visitation. The economic interests of the railroads in Western tourism also played a role in the protection of Western public lands. With John Muir as a chief publicist to Southern Pacific, the transcontinental railroad used its political power to achieve the designation of Yosemite as a National Park.<sup>1</sup> The same railroad later helped create Sequoia National Park in 1890 and Crater Lake National Park in 1902.

Similarly, Northern Pacific's president Jay Cooke lobbied for the designation of Yellowstone National Park in 1872.<sup>2</sup> Northern Pacific later played a prominent role in the designation of Mount Rainier National Park in 1899. Glacier National Park, designated as national park in 1910, was the result of lobbying from the Great Northern Railway. Transcontinental railroads thus not only marked the beginnings of "western tourism" as we know it today. They also established the precedent that profits and the protection of western public lands could go hand in hand.

Railroads also benefited from National Parks by operating and supporting campgrounds and hotels. Northern Pacific loaned money for the construction of Old Faithful Inn in Yellowstone and operated concessions in Mount Rainier. Great Northern Railway brought in additional profits through the construction and operation of the Many Glaciers Hotel.<sup>3</sup> Both as attractions and venues for hotel and campground businesses, the National Parks represented important economic resources, based upon their recreational, aesthetic, ethic and spiritual values. After the railroads, a myriad of private enterprises stood to profit from the recreation and tourism sector.



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<sup>1</sup>Mark D. Barringer, *Selling Yellowstone*, (Lawrence, Kansas), 2002, p. 40

<sup>2</sup>Mark D. Barringer, *Selling Yellowstone*, (Lawrence, Kansas), 2002, p. 15

<sup>3</sup>Mark D. Barringer, *Selling Yellowstone*, (Lawrence, Kansas), 2002, p. 40





© Monica Mueller

trinsic values as well as various economic benefits to local communities that are often “gateways” to major public lands. Proximity to wilderness areas has been found to be an important driver of economic development in non-metropolitan communities, boosting income, employment, and population growth.<sup>45</sup> Similarly, Western counties close to national parks and other protected wild lands show healthy economies. These communities generated more income per capita in 2003 and more growth in income, employment, and population between 1970 and 2003 than counties farther away from such public lands.<sup>46</sup> They also outperformed the national average in these categories, indicating that protected public lands can lead to robust economies. During the 1990’s, nonmetropolitan areas rich in natural amenities experienced higher growth of in-migration compared to other regions in the nation. Particularly in recent years, quality of life has been a major factor for migration.<sup>47</sup> Revived interest and population influx in these areas indicate the prevalence of “amenity growth” in the rural West, founded on the region’s high environmental quality. Such growth is associated with a variety of economic and social factors, including in-migration, seasonal housing, employment in tourism, employment in finance, insurance, and real estate, high housing values, and high levels of education.<sup>48</sup>

A large number of nonmetropolitan counties in the Rockies region are today economically dependent on the recreation and tourism sector. The major source of jobs and income for these communities are entertainment and recreation, accommodations, eating and drinking places, and real estate.<sup>49</sup> In addition, these counties had a higher percentage of seasonal housing and high receipts from hotels and motels. Such counties possess a variety of attractions that bring visitors, second home-owners, retirees, and new businesses. Major draws of recreation communities in the Rockies include ski resorts, other mountain-related recreation, national parks, reservoir lakes, and casinos. For the purposes of this analysis, recreation counties where casinos represented the major attraction were excluded as their economy does not depend on outdoor recreation and natural amenities. The counties selected for this analysis have, on average, 166 percent more acres in national parks and 68 percent more acres in forest service land than the average county in the Rockies.<sup>50</sup> Additionally, recreation dependent counties have an average natural amenity index of 5.3, compared to the average for the Rockies of 4.8<sup>51</sup>, further indicating that high environmental quality is an important characteristic for these communities and their recreation and tourism sector.

Counties economically dependent upon recreation

for their income and employment are largely distributed along the spine of the Rocky Mountains. The regions they encompass, illustrated in **Figure 10**, demonstrate the abundance and diversity of recreation opportunities in the Rockies. The communities in these recreation-dependent counties are situated near landmarks such as: Glacier National Park, which contains vast wilderness areas; the Greater Yellowstone region; the mountains of Colorado, well endowed with fourteen peaks and world class ski resorts; and the southern Rockies, home to the Grand Canyon and expansive desert ecosystems.

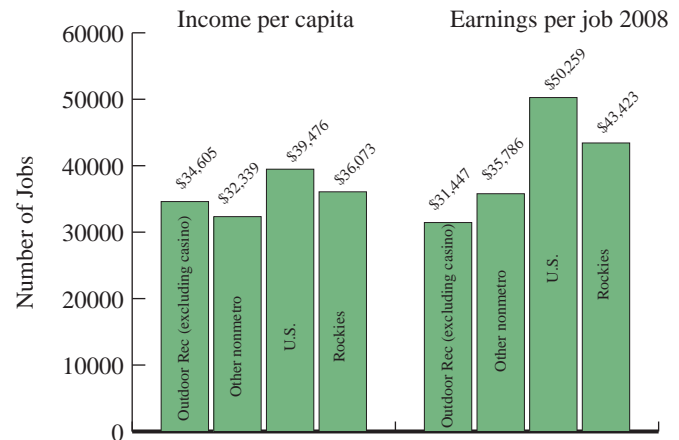
Recreation counties show strong growth between 1969 and 2008, illustrated in **Figure 4**, indicating that the amenity growth of the rural Rockies is in full swing in these counties. These communities experience an average annual population growth between 1969 and 2007 of nearly three percent, outstripping other nonmetropolitan regions in the region, where average population growth stood at one percent. Recreation counties also had a higher population growth than the Rockies and the U.S. average. The 1980's marked a period of net outmigration from nonmetropolitan counties due to the economic downturn.<sup>52</sup> While Rockies counties with no recreational resources saw declines in population during that period, recreation counties continued to experience population growth.<sup>53</sup> Mining areas were the most severely affected by the poor economic conditions and outmigration in the 1980's; they lost three percent of their population in one year between 1986 and 1987.<sup>54</sup>

Population increase is a troubling trend for the region's fragile environment. As the baby boomer generation looks for retirement destinations, Rockies' recreational areas will experience increased pressure. The common phrase, "we are loving our lands to death," sheds some light on the scope of the problem. This trend not only calls for careful management of recreation centers and public lands but also for their expansion where possible to house the in-migrants who create jobs and bring investment.

Employment growth in leisure-based communities, at an annual average of four percent from 1969-2008, outperformed other nonmetropolitan areas of the region, the region as a whole and the nation. Recreation-dependent counties also proved more resilient to recessions. During the prominent "recession periods" of 1974, 1980, 1982-1983, 1990-1991, 2001-2002, and 2008, these counties had higher annual employment than other rural areas, the region and the nation.<sup>55</sup>

Communities which provide opportunities for recreation on the nearest public lands and ski resorts, as well as accommodation, food, and drinking services have been providing an influx of income into the Rockies region between 1969 and 2008. Average annual income growth in these counties stood at nine percent, higher than that in other nonmetropolitan regions as well as the Rockies. Thus, recreation has a central importance for the economic and cultural development of the Rockies. Recognizing these counties' place in the "new economy of the West" will be crucial to the way regional planners manage public land and opportu-

Figure 11: Income per Capita and Earnings per Job in Recreation Dependent Counties, 2008



Source: Regional Economic Information System,  
Bureau of Economic Analysis, US Department of Commerce

nities for recreation.

Recreation counties attract not only seasonal employment and service workers, but also wealthy individuals including retirees and workers in the financial, insurance, and real estate sector. **Figure 11** indicates that income per capita in these communities, at \$34,605, was higher than for other nonmetropolitan parts of the Rockies in 2008. However, income per capita was lower than the average for the Rockies and the U.S., where a mix of industries and a large number of urban centers generate the bulk of the income. Retirees bring non-labor sources of income such as dividends, interest receipts, and rent. These sources represented a quarter of total personal income in recreation counties, compared to one fifth for the Rockies as a whole.<sup>56</sup> The presence of retirees brings more benefits as their higher level of affluence leads to more demand for local goods and services, higher local government tax collections, and contributions to local charities and social organizations.<sup>57</sup>

Outdoor recreation workers were paid on average \$31,447 in 2008, lower than earnings per job in other nonmetropolitan regions and the nation. It is unclear, however, whether this fact supports the wide-spread belief that tourism brings low-paid employment to local communities. This is likely due to the seasonal flood of nonresidents to these





counties, who fill low paid service jobs, but are not representative of earnings by local residents. Earnings per employed resident are higher in recreation counties in the nation than other nonmetropolitan regions.<sup>57</sup> These workers earn more than ones in other rural parts of America, despite the fact that one of their jobs might be a lower paying part-time or seasonal job.

While all of these counties are gifted with public lands and natural environment, their economic landscapes are different. A cluster of counties near Yellowstone and Grand Teton National Parks, Sublette, Wyoming, Teton, Idaho, and Teton, Wyoming were among the five fastest growing recreation counties in the past decade. Duchesne, Utah, near Salt Lake City, which draws anglers to Starvation Reservoir, hikers to the High Uintah wilderness, ATV riders and hunters to its surrounding areas, is another one of the fastest growing recreation counties. Ouray, in the heart of Colorado's Rocky Mountains, is the fifth fastest growing recreation county. Growth in income from 2000 to 2008 in these communities ranged between 100-220 percent.<sup>58</sup>

The service sector that characterizes communities with outstanding recreational opportunities does not solely consist of low-paid waiters and souvenir sellers. The high quality of life in these counties also attracts knowledge-based businesses that employ highly educated architects, designers, financiers, lawyers, real estate agents, and software publishers. Globalization of production has made it possible for these workers to locate where they choose and work out of their laptop, occasionally making trips to urban centers and markets. For them, recreational opportunities, environmental quality, and availability of public land have become major reasons for location of the business.<sup>59</sup>

The percentage of jobs in knowledge-based sectors of total employment is higher in recreation counties than other nonmetropolitan counties, as evidenced in **Figure 12**. The information sector, consisting of publishers and

distributors of media, accounted for a small amount of employment. Finance and insurance played a larger role in the local economies, as well as real estate, rental and leasing services, consistent with the bulging demand from second homeowners and the seasonal influx of workers. Professional and scientific services, which include architects, engineers, designers, lawyers and other consultants, accounted for almost five percent of total employment. Combined, these four knowledge based industries supported 182,000 jobs in Rockies' recreation counties in 2008.

From the perspectives of employment, income, and population, the statistics confirm how robust recreation dependent counties are. Once supported largely by agriculture and resource extraction, these counties and their close proximity to high-amenity natural attractions now thrive from recreation uses of the land rather than extraction. There are profound implications for this new economic base; proper management of the land and environment to keep a healthy



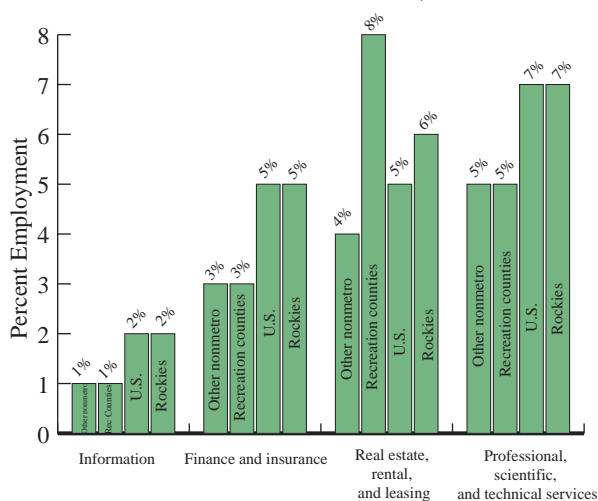
## Case Study: Recreation and Legal Standing

Recreation brings other societal benefits, in addition to economic growth and individual health. Direct contact with the natural environment creates environmentally responsible constituents and provides support for environmental conservation. The act of recreating gives individuals and organization "standing" in legal proceedings. Such standing can allow parties to challenge the acts of others in court, especially in cases of environmental degradation.

Under the Administrative Procedure Act, a person has standing to seek judicial review if s/he has suffered or will suffer injury, whether economic or otherwise. The issue of standing as it relates to environmental conservation was decided in 1972 in the Supreme Court case *Sierra Club vs. Morton*. The suit arose when the U.S. Forest Service issued a permit for the development of Mineral King, near Sequoia National Park. The Supreme Court held that the Sierra Club, as an organization, lacked standing to challenge the development of Mineral King. The Court, however, asserted that any member of the Sierra Club, who holds aesthetic or recreational interests in the area under question, had legal standing. This case established that any environmental group can assert standing in a natural resource matter by finding among its members a single person with a particular aesthetic or recreational interest (e.g. one who camps, hikes, bikes, hunts, or fishes in or near the affected area). Thus, recreational values have emerged as an important public use of natural resources. They have allowed for society to challenge in court traditional extractive uses of the land.<sup>1</sup>

<sup>1</sup> Percival, Schroeder, Miller, Leape. *Environmental Regulation: Law, Science and Policy*, 977-981, 2003

Figure 12: Percent Employment in Select Knowledge Based Industries, 2008



Source: Regional Economic Information System, Bureau of Economic Analysis, US Department of Commerce

balance and intact flora and fauna are essential. The foundation of this outdoor recreation economy is no less “nature based” than mining and forest products, but requires quite different conditions and constraints on the region’s public and private lands.

Other important factors for the location of these businesses are proximity to colleges and universities and transportation and communication infrastructure.<sup>60</sup> While colleges and universities supply a well-educated workforce, connectivity through major airports and interstates makes it possible for these businesses to stay in touch with urban markets. Building bridges between large cities and rural areas, thus, plays an instrumental role not only in developing recreation economies but also in attracting a diverse mix of professional services.

Ray Rasker, Ph.D., Executive Director of Headwaters Economics, noted that the existence of an established cluster of similar businesses is another important reason for business owners in their choice of location.<sup>61</sup> Proximity to such “clusters” means that business owners can employ a worker who has had experience working for a similar firm. While these clusters often form at random, the increased employment in knowledge-based industries in recreation counties across the Rockies are likely to attract more of these businesses. Rasker is optimistic about the continued growth of these firms in amenity rich communities, observing that such businesses might be relocating from high-density urban centers.<sup>61</sup>

A recreation and tourism-based economy also brings negative changes for rural communities. A growing concern for housing affordability has emerged in mountain towns where people employed in the service industries cannot afford to live where they work and are forced to commute over large distances. Median monthly rent in recreation counties averaged 23 percent higher than those in other nonmetropolitan communities in the U.S.<sup>62</sup> Among possible solutions are tax credits that could ease the burden of housing costs

as well as loan subsidies for new developments that include dedicated affordable housing.<sup>63</sup>

Other issues of rural development in and near recreation communities include the location of many homes near fire-prone areas, in what is called the “wildland-urban interface” (WUI). Settling down in the pathway of possible future environmental disasters is costly to taxpayers as it increases the need for fire management. On average, more than \$1 billion per year is spent on fire-fighting costs, a large proportion of which are attributable to the defense of homes in the WUI areas.<sup>64</sup> Shifting the burden of these costs from federal tax money and federal land agencies to states, counties, cities, towns and homeowners provides one viable solution.<sup>65</sup>

The growing number of in-migrants and seasonal visitors increases pressures on public lands. Loss of open space is another mounting concern, as community development gnaws at farms, ranches, and other land. Forces of amenity growth that increase sprawl over prime landscapes can be counteracted with careful planning. The Sonoran Institute, a nonprofit agency which works with local communities to inspire and enable conservation and resilient economies, strives to promote smart growth in the Rockies. A “smart city” is one that has a compact ground footprint and minimizes infringement on open space. Through a combination of development and protection of land, planners integrate housing with the natural environment. McCauley Butte in Missoula, Montana is one example. Less than nine percent of the owned land was used for a residential development, while the rest, wetland, riparian areas and a hayfield were protected under a conservation easement. In Valley West in Bozeman, Montana, housing units were integrated with wetlands, watercourses and trails. Denser towns can further enhance social networks, which benefit the local economy, and decrease the need for spending on infrastructure.<sup>66</sup> Planning for more walkable and bikeable communities and incorporating urban transit systems can improve connectivity and reduce classic automobile-driven sprawl.<sup>67</sup>



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## Participation Trends

The public lands of the Rockies and the region's recreational opportunities are not only an engine of economic growth. They are also valuable to the high numbers of people who continue to use them for leisure, medical, and spiritual rejuvenation. The popularity of nature-based recreation has changed over the years, varying by the types of outdoor activity and public lands and the demographic characteristics of the population. The Rockies Project finds that people continue to engage in nature-based recreation and these activities continue to enjoy strong popularity.

### *The History of Nature-based Recreation*

During the late 19<sup>th</sup> century, the dream of a better life founded on economic industries such as agriculture, timber harvesting, and mining caused a vast population migration to the West. Between 1880 and 1910, the Rockies population increased by over 303 percent.<sup>68</sup> Although early settlers indeed spent time in the outdoors, such time was not seen as leisure and nature was largely viewed as wild, hostile, a force to be tamed. However, as America continued to develop into a major world power, citizens enjoyed greater disposable income and more leisure time. This is evidenced by the 6.8 hour decrease in average annual work in the late 20<sup>th</sup> century between 1965 and 2003.<sup>69</sup> As a result, people began pushing the boundaries of environmental exploration and enjoying nature in new ways. They were able to take advantage of “natural amenities” in a way that did not require the removal or intensive use of the natural resources for production or manufacturing.

Between the years of 1938 and 1965, there was a noticeable increase in visitation to national parks.<sup>70</sup> According to Clawson and Harrington, this trend was driven by four post-war “fueling factors”: increases in population, disposable income, leisure time, and mobility.<sup>71</sup> The need to manage and plan for the growing demand for outdoor recreational opportunities forced Congress to establish the Outdoor Recreation Resources Review Commission (ORRRC) in 1958.<sup>72</sup> The ORRRC conducted a national survey in an effort to answer these questions: “What are the recreation wants and needs now and what will they be in the years 1976 and 2000? What are the recreation resources of the Nation available to meet those needs? What policies and programs should be recommended to ensure that the needs of the present and future are adequately and efficiently met?”<sup>73</sup> The National Recreation Survey (NSR) has been conducted frequently between 1960 and 2008 and results highlight general participation trends in national outdoor recreation. In the 1990's, the survey was revamped and renamed the National Survey on Recreation and the Environment.

Today 49 percent of Americans participate in outdoor recreation, of which eight percent are in the Rockies region. Of the Rockies 2009 population 55 percent participate in outdoor recreation, up from 53 percent in 2008. This is the highest rate of any region in the United States, next followed by the West North Central census division with 53 percent of its population participating.<sup>74</sup> This high percent-

age of participants further evidences the importance of recreation in the Rockies and how the changing participation can have an effect for more than just those people recreating.

### *Long-term Trends*

Over the years the most popular recreation activities have remained largely consistent. The top five activities that American were involved in during 1960 included driving for pleasure, swimming, walking, playing outdoor games or sports, and sightseeing. In the 1982-1983 survey, swimming and walking became the two most common activities, followed by visiting zoos and parks, picnicking, and driving for pleasure. A little more than ten years later, wildlife viewing and biking became increasingly dominant while swimming and walking remained in the top five. By 2000, walking, family gatherings, viewing natural scenery, visiting a nature center, nature trail, or zoo, and picnicking were the most widespread outdoor pastimes. It is important to note that the most prevalent activities over the years remain generally low cost, demand minimal physical exertion, and require no expensive special equipment or highly developed skills.<sup>75</sup> As **Table 4** depicts, bicycling, camping, and canoeing/kayaking had the greatest increase in participation numbers between 1960 and 2000. Simultaneously, horse riding, hunting, and fishing remained fairly consistent or show a slight decline during the same time period. The decline in hunting has also been observed in the U.S. Fish and Wildlife Surveys. In recent years, further research has been conducted in an effort to more effectively calculate participation trends in outdoor recreation.

### *Recent Trends in Selected Outdoor Activities: National Outdoor Participation*

The National Survey on Recreation and the Environment and the Outdoor Industry Association's Outdoor Foundation Reports are the two most prominent studies on current national trends in outdoor recreation. The Outdoor Foundation's 2010 Report found that 48.9 percent of Americans (age six and older) participated in outdoor recreation in 2009, a small increase from 2008. While the number or overall participants increased, participation by activity varied greatly.

**Table 4: National Long-term Participation Trends (Millions of Participants)**

Year	Bicycling	Horseback riding	Camping	Hunting	Fishing	Canoe/kayaking	Sailing	Swimming	U.S. population
1960	13%	9%	10%	16%	33%	2%	3%	47%	131
1965	18%	12%	13%	16%	34%	3%	4%	50%	144
1982-1983	32%	9%	21%	12%	34%	8%	6%	53%	188
1994-1995	32%	8%	29%	10%	30%	8%	5%	55%	216
2000-2001	41%	10%	37%	12%	35%	12%	5%	55%	229

Source: National Survey on Recreation and the Environment



## Case Study: Ethnic Minorities in Outdoor Recreation

As seen in the demographics section of the Recreation Overview in this report card, the breakdown of participation among ethnicities does not correspond to the diverse population of the Rockies and the greater United States.

In their article “Understanding the Role of Ethnicity in Outdoor Recreation Experiences,” Deborah Carr and Daniel Williams explain that the underrepresentation of ethnic groups is approached from two different perspectives: one of general marginality and another based on ethnic factors.<sup>1</sup> According to the marginality argument, “low socio-economic status, lack of access... (and) discrimination” results in under-participation.<sup>2</sup> Conversely, the other approach places a greater emphasis on cultural aspects such as historical involvement, and “difference in values and expectations.”<sup>3</sup> Although there has been a dramatic increase in research regarding the demographic characteristics of outdoor enthusiasts, there is still a need for further studies to determine what the main factors are and how they can best be addressed.

From an economic standpoint, targeting underrepresented ethnic groups should be pursued as it could significantly impact participation numbers and therefore, presents an opportunity to the recreation industry. Currently the “outdoor recreation is marketed to a white, middle-class population,” according to Dave Secunda, the executive director of the Outdoor Recreation Coalition of America (ORCA).<sup>4</sup> Ellen Wessel, president of Moving Comfort, Inc., points to the portrayal of outdoor activities via advertising and the media as “reinforcing the idea that these are all-white activities.”<sup>5</sup>

The efforts to encourage participation of people of different ethnicities should be multifaceted and multilateral. The change in policy from the supply side by outfitters and advertisers is one aspect. However, there must also be attempts made to increase the demand from minority groups. Through his work, Michael Brown, Ph.D. “has shown that if people aren’t exposed to an activity before the age of 16, they won’t do that activity later in life.”<sup>6</sup> Thus, it is crucial to get minorities involved in outdoor activities at a young age. Groups, such as Denver’s Outdoor Recreation program, are crucial in increasing the accessibility of outdoor education and natural places to urban populations. Founded by an African-American woman, Outdoor Afro is an example of a grassroots, community focused attempt to encourage nature-based recreation.<sup>7</sup> According to the website, “Outdoor Afro is a community that reconnects African-Americans with natural spaces and one another through recreational activities such as camping, hiking, biking, fishing, gardening, skiing – and more.”<sup>8</sup> There have even been initiatives led by celebrities, such as Oprah Winfrey’s recent overnight camping trip in Yosemite National Park.<sup>9</sup> While awareness is arising and can now be seen in federal bills, such as President Obama’s America’s Great Outdoor Initiative, there must continue to be a reform in all aspects of the outdoor recreation community.<sup>10</sup>

<sup>1</sup>Carr, Deborah S., and Daniel R. Williams. 1993. Understanding the Role of Ethnicity in Outdoor Recreation Experiences. *Journal of Leisure Research* 25, no. 1, 22.

<sup>2</sup>Carr, Deborah S., and Daniel R. Williams. 1993. Understanding the Role of Ethnicity in Outdoor Recreation Experiences. *Journal of Leisure Research* 25, no. 1, 22.

<sup>3</sup>Carr, Deborah S., and Daniel R. Williams. 1993. Understanding the Role of Ethnicity in Outdoor Recreation Experiences. *Journal of Leisure Research* 25, no. 1, 23.

<sup>4</sup>ORCA is a non-profit industry group based in Boulder, Colorado. Eller, Daryn. “The Outsiders.” *Women’s Sports & Fitness* 16, no. 7 (1994): 19.

<sup>5</sup>Eller, Daryn. *The Outsiders*. *Women’s Sports & Fitness* 16, no. 7 (1994): 19.

<sup>6</sup>Eller, Daryn. *The Outsiders*. *Women’s Sports & Fitness* 16, no. 7 (1994): 19.

<sup>7</sup>Paige Ogburn, Stephanie. 2010. Into the wild: African American environmentalist Rue Mapp gets people of Colorado outside. *High Country News*. June 21.

<sup>8</sup>Mapp, Rue. Outdoor Afro. “About.” Accessed November 3, 2010. <http://outdoorafro.com/about>.

<sup>9</sup>Mapp, Rue. 2010. Outdoor Afro. “Oprah Goes Camping in Yosemite!,” October 22. <http://outdoorafro.com/2010/10/oprah-goes-camping-in-yosemite.html>

<sup>10</sup>America’s Great Outdoors. 2010. “President Obama Launches Initiative to Develop a 21st Century Strategy for America’s Great Outdoors.” April 16. <http://www.doi.gov/americas-greatoutdoors/Press-Release.cfm>.



According to **Table 5**, hiking has seen the greatest overall increase of participants, which witnessed an eight percent increase in participants between 2000 and 2009. This is no surprise, as hiking is a relatively cheap, low impact option. It is easily accessible for families during the economic recession when higher priced activities further from home often do not fit into the budget. Self powered activities with minimal gear requirements have seen the greatest increase in participation, while “destination” activities have not seen the same growth.<sup>76</sup> For a comparison, camping participation rates only increased by two percent and skiing by six percent, both of these are “destination” activities. Other activities with the exceptions of rafting and climbing have remained constant or shown a slight increase in participation. Kayaking has seen a 53 percent increase in participation between 2000 and 2009. Within the past year, adventure racing and snowshoeing have witnessed the greatest growth, with adventure racing growing 18 percent between 2008 and 2009, while snowshoeing has grown by 17 percent. Overall, the Outdoor Industry Foundation Report has found that participation in outdoor recreation is increasing on a national level, while certain activities such as hunting are experiencing noticeable decline.

#### *Hunting, Fishing, and Wildlife Viewing*

The U.S. Fish and Wildlife Service has conducted the National Survey on Fishing, Hunting, and Wildlife-Associated Recreation every five years since 1955. However, a change in methodology in 1985 caused discrepancies when attempting to compare data over time. Hunting has been declining in participation both on a national and regional level. As **Table 6** shows, in 1991, there were 14,063,000 national hunters and 1,069,000 in the Rockies (FWS Mountain Division is the eight-state mountain census division). By 2006, there were only 12,510,000 hunters nationwide and 868,000 in the Rockies region. While hunting has declined, wildlife viewing has shown an increase in participants between 1996 and 2006. Nationwide, wildlife viewing has grown by 13 percent from 62,868,000 participants to 71,132,000. The Rockies region experienced a 60 percent increase in wildlife viewers during the ten-year period between 1996 and 2006. The public choice has turned from hunting animals to viewing them, following a shift in public opinion on hunting.

**Table 5: Recent Trends in Select Outdoor Activities**

Activity	2000	2006	2007	2008	2009
Number of Participants in Thousands					
Backpacking (more than 1/4 mile from home)		7,067	6,637	7,867	7,647
Canoeing	10,880	9,154	9,797	9,935	10,058
Climbing		6,314	6,576	7,057	6,148
Hiking	30,051	29,863	29,965	32,511	32,572
Kayaking		6,098	7,762	9,262	9,352
Rafting	5,259	3,609	4,340	4,651	4,318
Trail Running	4,167	4,558	4,216	4,857	4,833
Source: Outdoor Foundation 2009,2010 Report					

This trend is not seen as prevalently in angling. Participation of anglers has only slightly declined at both the national and regional level. From 2008 to 2009 the Outdoor Foundation found that 17 percent of Americans participate in fishing (freshwater, saltwater, and/or fly fishing), the highest participation rate out of any activity, though still 200,000 participants lower than the year before.<sup>80</sup>

#### *Visitation to Public Lands*

Visitation to protected public lands is a commonly used indicator of trends in recreation. The public’s interest in exploring wild and natural places can be evaluated partially based on the demands placed on public lands, especially those that are managed in a way that protect their natural amenities and recreational values. Calculating visitation numbers can often be challenging and the methods to do so are constantly evolving in an effort to increase accuracy. Although there have been noticeable improvements in standardizing data collection, agencies often struggle to obtain consistent information due to budget and resource constraints. As a result, discrepancies often arise when attempting to track visitation numbers over time.

#### *National Parks*

The National Park Service (NPS), established in 1916, is responsible for managing National Parks “to conserve the scenery and the natural and historic objects and

**Table 6: Anglers, Hunters, and Wildlife Viewing**

Year	Region	Anglers	Hunters	Wildlife Viewing
1991	U.S.	35,578,000	14,063,000	76,111,000
	Rockies	2,079,000	1,069,000	4,437,000
1996	U.S.	35,246,000	13,975,000	62,868,000
	Rockies	2,411,000	1,061,000	3,099,000
2001	U.S.	34,067,000	13,034,000	66,105,000
	Rockies	2,443,000	1,020,000	4,619,000
2006	U.S.	29,952,000	12,510,000	71,132,000
	Rockies	2,084,000	868,000	4,968,000
Source: U.S. Census Bureau: National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR)				

## Case Study: Pay-to-Play

Charging fees for use of public lands has been widely debated as a way to fill the gap in public funding. In May 2010, the U.S. Forest Service proposed charging fees in the South Colony Basin in the San Isabel National Forest, generating concern over restrictions of access to public areas. Under the proposal, day hikers would be charged \$10 and campers \$20 to access the wilderness area.

Home to the popular fourteeners, Mount Humboldt, Kit Carson, Crestone Needle, and Crestone Peak, this area is heavily trafficked, receiving between 5,000 and 7,000 visitors per day in high-season.<sup>1</sup> Visits to Colorado's fourteeners have increased by 300 percent in the past 10 years, resulting in soil erosion and vegetation loss and threatening rare plants species, not to mention the traffic jams on the trails.<sup>2</sup> Battling negative environmental and infrastructure impacts from the large number of visitors, The Colorado Fourteeners Initiative, Rocky Mountain Field Institute and the Forest Service have been cooperating on trail and campsite restoration in the South Colony Basin for the past 13 years. Collection of the fees would go towards upkeep of the restored sites and ranger patrol.<sup>3</sup> The San Isabel National Forest faces many trail and road maintenance backlogs due to shortfalls in federal budgets, said Eric Billmeyer of the Rocky Mountain Field Institute.<sup>4</sup> Thus, generating revenue from fees might be a way for the National Forest to continue providing recreational experiences.

Among opponents of fee proposals is the Western Slope No-Fee Coalition. The coalition is a proponent of a system of limited permits that are available on a fair and equal basis, instead of fees which restricts visitors who simply are not able to pay them.<sup>5</sup> A survey of fourteener climbers showed that the average amount that they are willing to pay to visit fourteeners, beyond spending on gear and travelling, is \$70 per person per trip, indicating that many visitors will not be dissuaded.<sup>6</sup> Some people will be discouraged from visiting however, raising concerns for the fairness of fees on public lands. Other opponents are concerned that implementing this charge might lead to similar charges on other fourteener peaks.

Discussion over visitor fees raises questions about other methods for filling the gap in public budgets. Proposals for taxes on outdoor gear have circulated in the outdoor industry, according to Eric Billmeyer of RMFI.<sup>7</sup> Such taxes would increase the price of equipment and use the margin to fund public land restoration. Where the responsibility of public land restoration falls is a question that regional and national planners need to resolve and act upon to ensure sustainable funding for recreational areas.

According to proponents of free markets, the federal budget shortfalls must be resolved by turning the land over to private business that will bring in the needed funding to manage the land.<sup>8</sup> Federal land managers are concerned with encroachment of the private sector. Federal ownership of the land might depend on the agencies' ability to collect the funds needed to maintain it. For them, fees represent an alternative to the unlikely scenario of raising funds through general taxes.<sup>9</sup>

<sup>1</sup>Rocky Mountain Field Institute, Sangre de Cristo Area, <http://www.rmfi.org/current-work-areas/sangre-de-cristo-wilderness-area>, accessed August 11, 2010

<sup>2</sup>Mark Hesse, Mount Humboldt Climbing Route Improvement and Restoration Project: A case study in addressing recreational impacts on Colorado's Wilderness Peaks, 2000

<sup>3</sup>Jason Blevins, Forest Service weighing plan to require fees from peak hikers 05/16/2010 [www.denverpost.com/hiking/ci\\_15095017](http://www.denverpost.com/hiking/ci_15095017), accessed August 10, 2010

<sup>4</sup>Eric Billmeyer, Executive Director of Rocky Mountain Field Institute, interview by author, 07-06-10

<sup>5</sup>Western Slope No-Fee Coalition, Save South Colony Basin, <http://westernslopenofee.org/index2.php?display=yes&pageid=32>, accessed August 10, 2010

<sup>6</sup>Mike Smith, Anticipated Questions and Responses to the South Colony Basin Fee Proposal [http://www.westernslopenofee.org/pdffileuploads/South\\_Colony\\_Q\\_and\\_A.pdf](http://www.westernslopenofee.org/pdffileuploads/South_Colony_Q_and_A.pdf), accessed August 10, 2010

<sup>7</sup>Eric Billmeyer, Executive Director of Rocky Mountain Field Institute, interview by author, 07-06-10

<sup>8</sup>Terry L. Anderson, Vernon L. Smith, and Emily Simmons, How and Why to Privatize Federal Lands, 1999

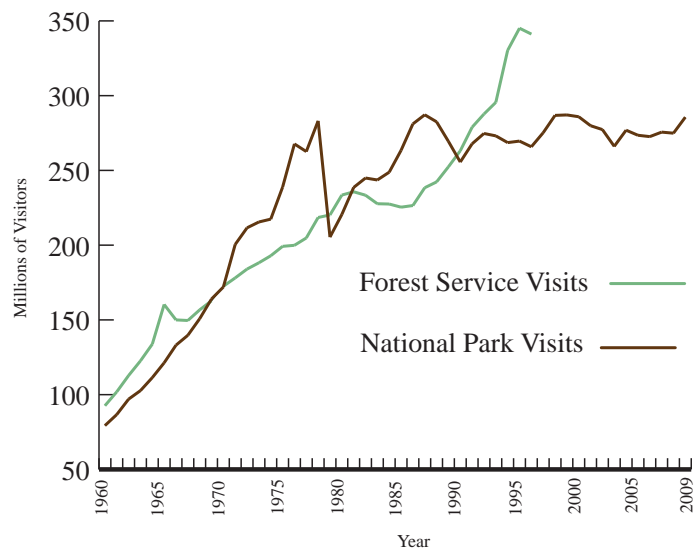
<sup>9</sup>Dave Iverson, To Fee or Not to Fee, August, 10, 1999, <http://www.fs.fed.us/eco/eco-watch/feenot99.html>, accessed August 10, 2010

the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”<sup>77</sup> The NPS, through their Public Use Statistics Office, has the most comprehensive figures on user visitation, dating back to 1960. As **Figure 13** demonstrates, visitation increased dramatically from 79.3 million recreation visits in 1960 to 283.1 million recreation visits in 1978. Although there was a brief decline in the late 1970's, visitation rose again in the 1980's, hitting a peak number of 287.2 million visits in 1987. Although overall visitation was at its highest, per capita visitation was actually decreasing. Research by Pergams and Zaracic shows that per capita national park visits vastly declined between 1981 and 1991 and continue to decline (one to one point three percent a year).<sup>78</sup> This report has been criticized for concluding that outdoor recreation is decreasing because they only focused on two measures: statistics from national parks and the results of the Fish and Wildlife Survey, thereby largely ignoring many other forms and types of outdoor activities. Also, they ignored the fact that the dramatic initial increase was not a sustainable growth pattern. In recent years, leisure time, income, quality, and funding for the park and highway systems have all leveled off or slightly declined. The only factor that has continued to increase is car ownership.<sup>79</sup>

Despite the recent decrease in per capita visitation, overall visitation has again shown an increase, reaching

285.6 million recreational visits in 2009. Despite some fluctuation over the years, visitation to the country's first national park, Yellowstone has shown an overall increase depicted in **Figure 14**. In 2009, there were 3,295,187 recreational visits to Yellowstone National Park; the highest number of visitors in the history of the park. This increase in visitation adds stress to an already underfunded public resource. This

**Figure 13: Annual Visitation to National Parks and National Forests**



Source: 1960-1979: U.S. Statistical Abstract 2000 section 7: parks recreation and travel  
1979-2009 NPS stats



lack of necessary financing could have future effects on participation and visitation to these resources.

### Bureau of Land Management

In 1946, the General Land Office and the U.S. Grazing Service combined to form the Bureau of Land Management (BLM).<sup>80</sup> The majority of the BLM's property is located in the Rockies region. The BLM manages 25 percent of the land in the eight-state Mountain region. As a result, the BLM's recreation management strategies greatly impact outdoor recreation in the American West. According to **Figure 15**, since 2002, there has been a steady annual four percent increase in recreational visits to BLM land. This increase is incredibly relevant to the Rockies region as the BLM primarily manages the land located in the "west and southern mountain amenity zone." The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.<sup>81</sup> This being said, there is often more energy development, associated roads, and hunting on BLM lands due to their less stringent regulations. A greater variety of activities is available and allowed on BLM lands which allows for a wider variation of participants.

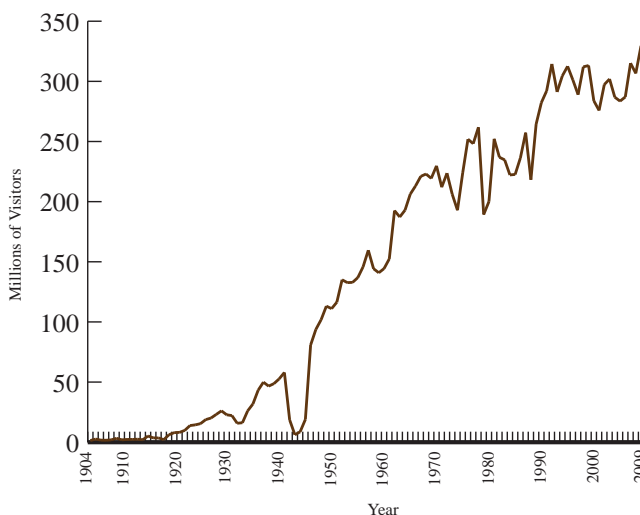
### Demographics: Ethnicity

There is a disproportionate number of Caucasians that participate in nature-based recreation, especially when taking into account the national and regional demographic breakdown of ethnicity. As represented in **Figure 16**, the Outdoor Foundation found that nationwide in 2009, 80 percent of outdoor participants were Caucasian, while 82 percent of the total U.S. population is Caucasian.<sup>82</sup> Hispanics were found to make up six percent of outdoor participants. This comparison does not adequately demonstrate the discrepancy as the U.S. Census defines Hispanics to be of any race. With an increasingly African-American and Hispanic population, the demographic breakdown of recreationists does not coincide with the ethnic diversity of the United States. African Americans made up seven percent of outdoor participants compared to 13 percent of the U.S. population in 2008. Asian/Pacific Islanders and Hispanics represent five percent and six percent of participants versus 0.18 percent and 15.1 percent of the total U.S. population.<sup>82</sup> Explanations for this inconsistency range from lack of historical involvement by minority groups to issues of inaccessibility. As the Minorities in Recreation case study further discusses, there are numerous efforts underway to encourage members of underrepresented ethnic groups to recreate in the outdoors. This increased effort for accessibility can also be noticed in regard to youth participation

### Youth Participation

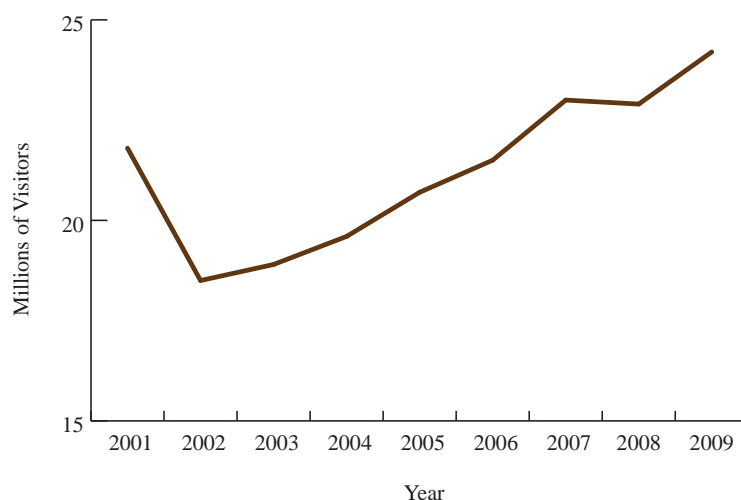
In 2005, author Richard Louv published a book titled *Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder*. He hypothesized that children are suffering from an influx of technology and are not spending enough time outdoors. He then concluded that the lack of

Figure 14: Annual Visits to Yellowstone National Park



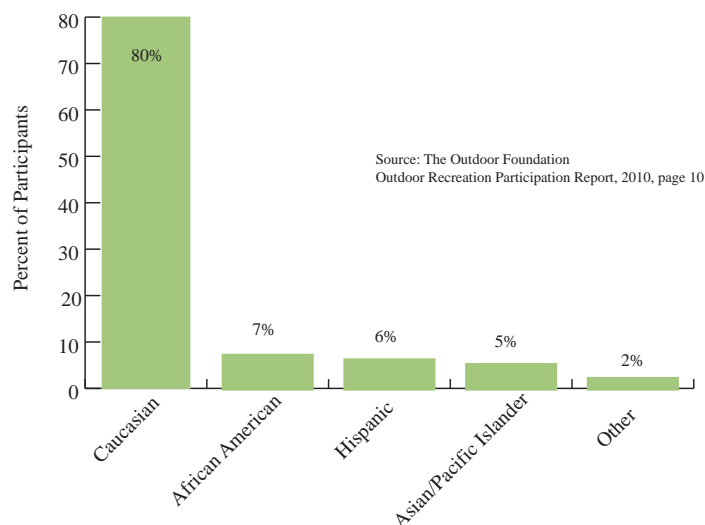
Source: <http://www.nature.nps.gov/stats/viewReport.cfm>

Figure 15: Annual Visits to BLM Land



Source: Bureau of Land Management Public Land Statistics

Figure 16: Ethnicity of Outdoor Participants, 2009



Source: The Outdoor Foundation  
Outdoor Recreation Participation Report, 2010, page 10

time in nature is largely responsible for many of the rampant negative trends in children's health including obesity, attention-deficit disorder, and depression.<sup>83</sup> Within days of releasing his book, a term previously unknown "nature-deficit disorder" became the centerpiece of heated debates and numerous scholarly studies. The question then became, is youth participation in outdoor recreation significantly declining as Louv theorizes in his book?

Louv himself explains that when he wrote the book, his belief in a decline of youth participation was based on anecdotal evidence as there was a lack of longitudinal studies documenting youth outdoor recreational participation.<sup>84</sup> The recognition of the need for more studies led to reports such as that of the Outdoor Foundation, which largely agrees with the current trends in children's involvement in nature-based activities. The Outdoor Foundation survey seems to suggest that Louv was in fact correct. As shown in **Figure 17**, adults (18+) encompass the majority of outdoor participants, while youth aged 6 to 17 only represent 22 percent of recreationists while they make up less than 20 percent of the nation's population. Referring to **Figure 18** one can see that the greatest percentage decline in participation from 2006-2009 occurred in the younger generations. Participation by 6-12 years olds decreased 16 percent and 13-17 year olds by nine percent. These are large percentage decreases which cannot be attributed solely to the aging population of the U.S. Youth participation in the outdoors is finding itself competing with more and more indoor and electronically inclined activities, not only changing the nation's skill set but also the physical health of our youth.

### *Summary of Participation Trends*

By evaluating a diverse range of activities and types of participation measurements, this study highlights the changing dynamic of outdoor recreation. Although there are some declines in particular activities, such as



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## Case Study: The Health of Recreation

Living near natural areas and experiencing them through outdoor recreation brings a variety of health benefits. The sedentary environment of cities is often revived by the creation of urban parks, popularly called the "lungs of the city". Other urban manifestations of "nature" include community parks, walkways, even gardens and rooms with household plants. More physical activity and lower levels of stress are some of the positive benefits of outdoor recreation. Stress-related problems account for an estimated 75 percent of all visits to primary care physicians.<sup>1</sup> Stress is linked to a wide variety of physical disorders such as common cold, heart attack, cancer, obesity, high systolic blood pressure, elevated heart rates, migraine headaches, rheumatoid arthritis, chronic fatigue, receptiveness to allergies, and other maladies.<sup>2</sup> Rejuvenation and stress relief have been associated with natural areas away from the cities for many decades, including forests, rivers and lakes, wilderness and prairies.

An activity as simple as walking outside promotes a host of benefits such as weight management, blood pressure control, lower risks of heart attack, stroke, breast cancer, depression, and type two diabetes, stronger muscles, bones and joints, and generally longer lifespan.

According to surveys conducted between 1999 and 2002, only 25 percent of adults and 50 percent of young people, ages 12-21, engage in recommended physical activity in the U.S.<sup>3</sup>, indicating the need to encourage more widespread participation in outdoor recreation. Obesity is another indicator of lack of physical activity; 27 percent of Americans today are obese. Physical activity is especially important for the younger generations. Childhood development lacking physical activity may result in obesity or attention deficit hyperactivity disorder (ADHD). Recently experts have identified an affliction known as "nature deficit disorder". While children are spending time in front of computer and television screens, they might be losing important benefits of outdoor recreation. Eight million children are reported to be overweight, with increased chances of cardiovascular diseases, cancer and adult-onset diabetes. Around 4.4 million youth, ages 4-17, have been professionally diagnosed with ADHD. Spending even little time outdoors has been reported to reduce the symptoms of ADHD.

<sup>1</sup>Godbey, Geoffrey, *Outdoor Recreation, Health, and Wellness: Understanding and Enhancing the Relationship*. Resources for the Future, 2009, p. 3.

<sup>2</sup>Godbey, Geoffrey, *Outdoor Recreation, Health, and Wellness: Understanding and Enhancing the Relationship*. Resources for the Future, 2009, p. 3.

<sup>3</sup>Godbey, Geoffrey, *Outdoor Recreation, Health, and Wellness: Understanding and Enhancing the Relationship*. Resources for the Future, 2009, p. 7



Figure 17: Age of Recreation Participants, 2009

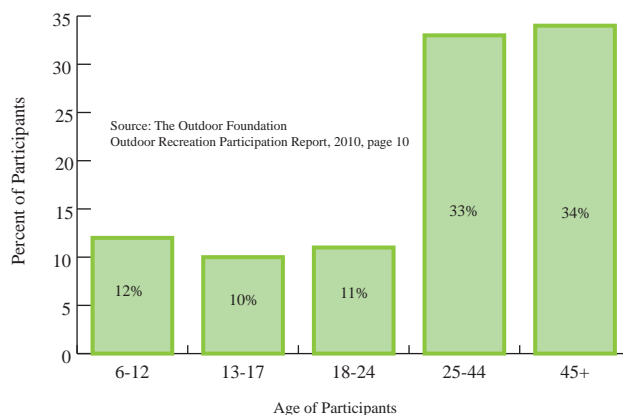
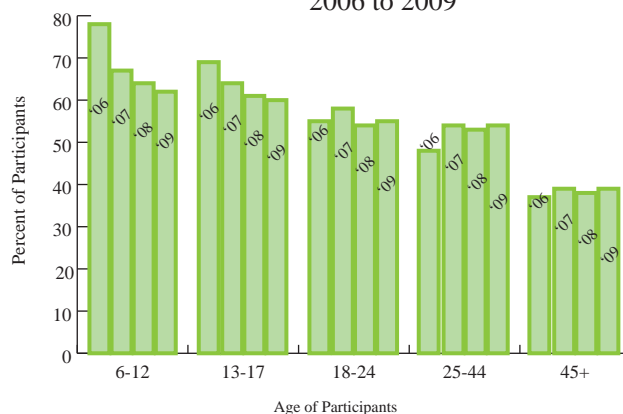


Figure 18: Participation in Outdoor Recreation 2006 to 2009



hunting, there is an overall increase in participation. Part of the trend, such as national park visitation numbers, can be attributed to the economic downturn. Despite the fact that the economic downturn may have discouraged more expensive forms of outdoor recreation, the current economic situation has promoted more cost-effective means of spending one's leisure time. Instead of traveling out of the country or spending money in an urban setting, many Americans have opted to take "stay-cations." Traveling to nearby natural environments and camping, hiking, or fishing can provide a more affordable alternative to traditional vacations. The Rockies region is fortunate in that public and accessible land, available to recreate on, is much more plentiful and often aesthetically pleasing than in other parts of the nation.

Looking to the future, it is important for a healthy population that initiatives are developed to encourage people to spend time outdoors. Efforts should be particularly focused towards youth (particularly with current issues of obesity) and historically under participating ethnic and cultural groups. The continued decline in youth participation rates is troubling for our future and that of our region. The Rockies has a rich history of providing premier outdoor recreating opportunities to outdoor enthusiasts and it is in the region's best interest to continue to do so, building a strong foundation for future generations and Rockies' citizens.

## Funding for Recreation and Parks

### Case Study: Denver Parks and Recreation

While remote natural areas provide unparalleled opportunities for spiritual rejuvenation, solitude and recreation, distance from urban centers is an ever-existing challenge for efforts to connect people to the outdoors. Furthermore, the recent spike in gas prices and the economic recession have increased expenses for trips far from home. Data on participation in outdoor recreation show that people today choose to recreate closer to home and for a shorter amount of time. These trends stress the importance of urban recreation parks. Such parks can also reduce negative impacts on more remote natural areas from overuse, as they attract more visitors and outdoor enthusiasts.

Urban parks bring various economic benefits to communities. They increase property values and bring higher property taxes to the local government. Proximity to park settings also attracts retirees, who bring income in the community in the form of dividends, rent and interest and increase demand for services such as health care, finance, insurance, and real estate. Finally urban parks attract workers and businesses in knowledge-based industries.<sup>1</sup>

The Denver Parks and Recreation department offers recreational opportunities closer to home in mountain parks surrounding Colorado's capital such as the Genesee Mountain Park. The Outdoor Recreation department leads youth groups and corporate teams into the park in an effort to connect them to the outdoors and to one another. A complex ropes course, hidden among ponderosa pines and firs is used for team building programs. The outdoor recreation department leads hikes, incorporating environmental ethics and naturalist education. The department employs three full time workers and 14 on-call staff, including old-time outdoor leaders from the nation's best outdoor schools. Demand for these services is growing. Every year between April and October, 4,500 to 5,000 participants take part in programs organized by the Outdoor Recreation Department.

Acquired in 1912 and then expanded in 1937 and 2007, Genesee Park is the city of Denver's first mountain park. Only a thirty-minute drive west of downtown Denver, the park provides an accessible option for those looking to escape from the urban environment to a more natural setting. The Denver mountain park system has a rich history. In 1914, the first reintroduction of buffalo and elk in Colorado took place at Genesee.<sup>2</sup> In 1918, volunteers from the Colorado Mountain Club developed the Beaver Brook Trail, which to this day offers a "rugged backcountry experience." In 1939, two Civilian Conservation Corps groups, funded under the New Deal, built stone shelters near Genesee Mountain, which are still in existence and are available for reservation. The Mountain Parks have a deep history of use including celebrations conducted by the Daughters of the American Revolution (an event which first started in 1911) and contain many historic structures such as the Chief Hosa Lodge (built in 1918) and the Patrick House (created as a toll station in 1860).<sup>3</sup>

Denver's Mountain Park system serves many purposes including, but not limited to, providing habitat for buffalo and elk herds, protecting key ecosystem services that the land offers, and making outdoor-recreation activities accessible to the urban and surrounding rural population of Denver. The Outdoor Recreation sector of the Denver Parks and Recreation Department relies heavily on the Genesee Mountain Park as an area to conduct their programs and further their mission. According to their website, the mission of the Outdoor Recreation Program is to "promote public awareness of the natural environment through interactive programs that combine opportunities for recreation and environmental education."<sup>4</sup> Although they conduct courses in Denver as well, Julie Brown, the program's coordinator, discussed how she preferred teaching in Genesee as it provides a better "sense of place."<sup>5</sup> The group is unique from traditional outdoor recreation groups in that it tends to target ethnic minorities and youth from income levels that are largely underrepresented in outdoor recreation (see demographics section for further information). In order to encourage involvement, the city helps subsidize fees and offers numerous programs via the Denver Public school system. When asked why more urban youth weren't involved in the program, Julie Brown cited transportation costs and "fear of the unknown" as two major obstacles. In her opinion, because parents of ethnic minorities historically did not spend leisure time in the outdoors, they have many concerns about the lack of safety and potential risk of being in the "unknown" outdoors.<sup>6</sup>

Besides the barriers discussed above, there are also limitations regarding land acquisition and maintenance of the parks. Urban parks across the U.S. face the problem of limited funding, which results in maintenance backlogs. Establishing new recreational areas is also a challenge. Private development of local land also decreases the amount of available land for new parks and also increases land prices, making it harder for urban park managers to bid for it.<sup>7</sup> Despite these obstacles, urban recreational programs should seek to expand courses in and access to natural lands near cities as an opportunity to encourage nature-based recreation, particularly for those who historically do not participate or get the chance to spend time in the natural environment.

<sup>1</sup> <http://atfiles.org/files/pdf/citiesparksecon.pdf>

<sup>2</sup> Denver Parks and Recreation. "Outdoor Recreation." Accessed on November 6, 2010. <http://www.denvergov.org/recreation3/OutdoorRecreation/tabid/432114/Default.aspx>.

<sup>3</sup> Denver Mountain Parks. "Genesee Park." Accessed on November 6, 2010. <http://mountainparkhistory.org/Parks/genesee.html>

<sup>4</sup> Denver Mountain Parks. "Genesee Park." Accessed on November 6, 2010. <http://mountainparkhistory.org/Parks/genesee.html>

<sup>5</sup> Brown, Julie. Interview by author. Golden, Colorado. July 29, 2010.

<sup>6</sup> Brown, Julie. Interview by author. Golden, Colorado. July 29, 2010.

<sup>7</sup> <http://www.rff.org/RFF/Documents/RFF-RPT-ORRG-State-of-Outdoors.pdf> page 25

## Case Study: The Rafting and Property Conflict

As discussed elsewhere in this report, a large portion of the Rockies region is public land. Nevertheless, the historic dispute between people asserting their private property rights and others hoping to recreate on or near private land continues to be a pertinent issue. This collision between conflicting values can be seen in the current debate occurring in Colorado as to whether white-water rafters are trespassing if any part of the raft or any member of the crew (accidentally or intentionally) touches the shoreline of adjacent private property. Adjacent land owners point to the 1979 Colorado Supreme Court ruling that “rafters need permission to float through private land or face criminal trespassing charges” while recreationalists emphasize other state statutes that permit “rafters to float through private property without the threat of criminal trespass charges.”<sup>1</sup> In an effort to reduce the ambiguity of the laws, Representative Kathleen Curry of Gunnison County recently introduced House Bill 1188. Under the bill, also known as the River Outfitter Viability Act, outfitters cannot be prosecuted for trespassing when “incidental contact” occurs on rivers that have historically been rafted.<sup>2</sup> HB-1188 did not pass and the ongoing conflict has yet to be decided and is currently deemed lost. Though this issue relates directly to rafting, the future outcome of similar debates could serve as a precedent for disputes over other types of recreation that occur in areas on or near private property.



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<sup>1</sup> Frosch, Dan. 2010. Dispute Revives Battle Between Rafters and Property Owners. The New York Times. April 16. <http://www.nytimes.com/2010/04/17/us/17colorado.html>

<sup>2</sup> Valentie, Jimmy. 2010. House committee approves rafting along private land. The Colorado Statesman. February 12. <http://www.coloradostatesman.com/content/991599-house-committee-approves-rafting-along-private-land>

The prosperity of the Rockies' economy is increasingly embedded in its opportunities for outdoor recreation. Sustaining this type of economic growth, however, hinges on maintaining the fragile natural environment of the region. The Rockies' recreation dependent counties are experiencing increased pressure from visitors, volatile and prolonged swings in precipitation patterns, sprawling community development, dwindling agricultural land going to community uses, and cyclic energy and minerals extraction. Protecting these natural resources for recreation requires funding from local sources both public and private and the federal government. **Figure 19** depicts the recent trend in three major sources of public funding. Inflation adjusted figures, represented by the darker lines, illustrate the decline or steady trends in public budgets. As a result, the maintenance of public lands increasingly calls for the participation of non-profit organizations, volunteer labor, and private source of funding. How reliable and sustainable these resources are is a question that will determine the future of public lands and recreational opportunities in the West.

The National Park Service (NPS), which operates more than 10 million acres in the Rockies,<sup>85</sup> struggles to protect the region's treasured landscapes and provide visitor services. Budget shortfalls have led to a lack of law enforcement in the parks. As a result, national parks have become homes to more than innocent visitors; in some areas marijuana plantations are growing alongside other flora. This has led to fertilizer pollution, irrigation tubing, and wildlife poaching by the plantations' guards. In addition, these national treasures are increasingly becoming “off-limits” to casual visitors due to the higher likelihood of violence for those stumbling into these illegal activities. Damage to cultural artifacts and wildlife have also been prevalent. The National Park Conservation Alliance estimates that the illegal removal of wildlife will lead to the extirpation of 19 species.

Lack of federal funding has resulted in the decrease of interpretive staff, educational brochures, and exhibits. Congested roads and infrastructure damaged by natural disasters are other issues that require more funding. Invasion of nonnative species is a major threat to native ones, second to habitat loss. Close to 2.6 million acres of national park land in the U.S. is today in need of management against nonnative species. Maintenance of trails and facilities has also been neglected. Responsibilities of National Park Service staff increasingly are focused on protecting vulnerable places, such as the Washington Mall, the Statue of Liberty, and Independence Hall, from terrorism; this responsibility comes under the jurisdiction of the National Park Service. These responsibilities erode NPS' budget and ability to effectively manage the remainder of the NPS system.<sup>86</sup> A study by the National Park Conservation Association reports that an additional \$800 million per year are needed to address these issues and maintain America's national parks.<sup>87</sup>

Lack of law enforcement personnel and funding is a challenge to the U.S. Forest Service as well. Cultivation or use of illicit drugs, vandalism to facilities, recreational fee violations, unlawful trail creation, and illegal off-highway vehicle travel were among the main management issues faced by Forest Service officers.<sup>88</sup> Despite these issues, funding for the Forest Service Recreation, Wilderness and Heritage Program has stayed constant in inflation-adjusted terms since 2001 (see **Figure 19**). The Recreation, Wilderness and Heritage program is meant to provide a “wide range of recreation settings, services and infrastructure needed to support over 205 million visits each year to national forests.”<sup>89</sup> This includes management of wilderness areas and heritage sites on national forest lands. Pike-San Isabel National Forest in Colorado is one example of the inability of the Forest Service to handle restoration and conservation efforts. Despite efforts from several nonprofit organizations to restore



the forest's trails, lack of funding and personnel has resulted in trail and road maintenance backlogs.<sup>90</sup> Other public lands face similar problems. State parks have also reported budget shortfalls which provide challenges for operations, maintenance, new construction and land acquisition.<sup>91</sup> Urban Park Directors reported similar issues; 65 percent of responses to a survey indicated insufficient funds for operation and maintenance as a major problem.<sup>92</sup> National Wildlife Refuges similarly face shortfalls in staff and funding to maintain facilities and natural areas. They report a maintenance backlog of \$2.6 billion.

Another source of funding for recreation and conservation on public land is the Land and Water Conservation Fund (LWCF). Its purpose is the purchase and development of federal land under the Bureau of Land Management, Fish and Wildlife Service, Forest Service and National Park Service. The fund also assists states' efforts in maintaining parks and recreation lands, through a matching grant program.<sup>93</sup> Inflation-adjusted annual appropriations for this fund in **Figure 19** show a 79 percent decrease between 2000 and 2008. In 2008, states reported a \$27 billion shortfall in state matching funding.

Lack of federal sources of funding is a challenge for communities to continue providing recreation resources for the American public.<sup>94</sup> As a result, communities have actively started to cast their vote towards conservation. According to the Trust for Public Lands, since 1996 more than 75 percent of around 1,500 proposed conservation funding measures have passed as ballot initiatives at the county, municipal, or district level. Other innovative local funding projects include GOCO, the Great Outdoors Colorado Trust

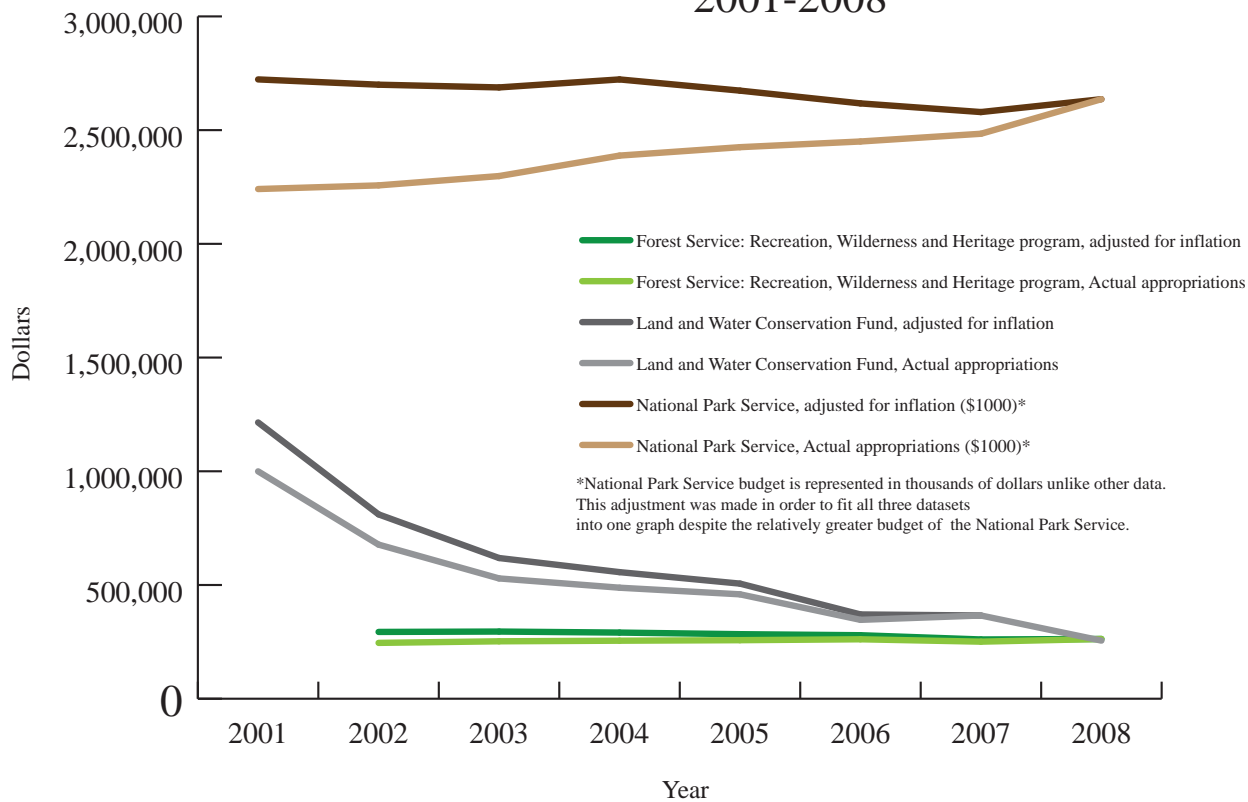
Fund, which directs proceeds from a state lottery towards outdoor recreation projects.

Eric Billmeyer, Executive Director of Rocky Mountain Field Institute (RMFI), addressed the issue of federal funding shortfalls, saying, "Recreational issues now are being taken care of by recreational enthusiasts, or environmental groups, who have that passion to focus in on a particular interest or their area of expertise."<sup>95</sup> A report by Resources for the Future also found that non-profit organizations or "friends groups" are becoming more involved with maintenance of American public lands. City and state parks, in particular, were reported to be increasingly dependent on limited funding from support groups.<sup>96</sup> National Forests are also being supported by nonprofits. Eric Billmeyer noted that not only funding but also responsibilities such as project planning, environmental compliance, implementation, and monitoring of national forests are being taken over by friends groups.<sup>95</sup> The Rocky Mountain Field Institute works on preservation and conservation of areas impacted by climbers, hikers, mountain bikers, and recently, motorized users. RMFI does receive funding from federal agencies. In 2009, government grants made up less than half of their annual budget. The bulk came from charitable organizations, while the rest was filled by corporate and individual contributions. This nonprofit is almost exclusively based on volunteer labor, using around 1,000 volunteers a year to restore and maintain the public recreation areas. Filling the gap in public funding with more nonprofits, however, could lead them to compete for the same limited sources of funding and volunteers, warned Billmeyer. Qualified crew leaders are also needed to lead volunteer groups on trail restoration



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Figure 19: Federal Recreation and Conservation Funding  
2001-2008



Source: Land and Water Conservation fund: Congressional Research Service, Land and Water Conservation Fund: Overview, Funding History, and Current Issues, July 10, 2006, available at: <http://www.nationalaglawcenter.org/assets/crs/RL33531.pdf>  
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 Forest Service: USDA, Forest Service, Budget, <http://www.fs.fed.us/aboutus/budget/> National Park Service: U.S. National Park Service, National Park Statistical Abstract

projects. Due to these constraints, depending so heavily on the work of nonprofits might not be a sustainable future for Western public lands.

The private sector has also played a major role in the management of public lands. During the early years of the National Park Service, its first director, Stephen Mather, proclaimed, "Scenery is a hollow enjoyment to the tourist who sets out in the morning after an indigestible breakfast and a fitful night's sleep on an impossible bed."<sup>97</sup> His words echo the widespread notion that, for many, comfort is an integral part of recreation and tourism. By leasing land to concessionaire enterprises, the National Park Service has cooperated with the private sector on the development of the infrastructure and lodging needed to accommodate visitors. The Forest Service also encourages private enterprises. The construction of major ski resorts has been the result of cooperation between the Forest Service which owns the land and concessionaire businesses that brought the investment dollars. Today 2,000 national forest campgrounds are run under permit by concessionaries. Concessionaire management has started to play a more major role on national forests. Acceptance of private investment and concessionaire control has provided an alternative to closing facilities that cannot be maintained due to inadequate governmental funding.<sup>98</sup> While concessionaires provide crucial visitor services, scrutinizing their impact on the natural resources and the public interest continues to be a critical responsibility of public land agencies.

Despite cooperation with the private sector, fund-

ing shortfall issues in federal and state budgets remain. The influence of the public on Western lands depends on the ability of public agencies to provide sufficient funding for their maintenance. One way that federal land agencies can increase budgets for recreation management is through user fees as further discussed in a later case study.

### Ecological Impact of nature-based recreation in the West

How can a single individual or a small group harm nature in the process of "recreating" outdoors? Many disregard the possible impact of recreationists scattered over vast areas and the harmful effects on the expansive public lands of the West. Others play a "shift the blame" game of arguing that certain forms of recreation are more harmful than others. For instance, some argue that horses do more damage to trails than backpackers, or better yet: motorized vehicles produce more damage than either horses or hikers. And so the arguments go. What is certain is the difference between impact of the "densely packed" vs. "dispersed" types of recreation in the Rockies. Similar to prior era resource extraction, such as mining and forest clearing that had intense impact on limited areas, today ski areas are often developed on leased public land by clear-cutting slopes. However, hikers, hunters, fishermen, even mountain bikers, spread their recreation over vast stretches of mostly public lands, which now show clear effects of repetitive use.

Increased visitation to Western public lands, made possible by the advent of the internal combustion vehicle





(cars, motor bikes, ATV's) and the economic prosperity following World War II, raises concerns about the negative impacts recreation has on the environment. Such effects vary in magnitude and gravity from soil compaction by a hiker to clear-cutting forests for ski resorts. These impacts of human activity support the widespread notion that Americans "love their public lands to death". Studies have reported on the resulting deterioration of natural resources in national parks and forest service land.<sup>99</sup> An analogy helps explain the problem. Consider the difference between tightly spaced houses in cities vs. the spread and "sprawl" of houses in the suburbs. Today, individual outdoor recreation, while sometimes densely packed into ski areas and built-up areas in national parks, often leads to the dispersed impact of millions of individuals, spread out across the vast public lands. The question then arises: when do dispersed recreationists start to harm the very lands they come to enjoy?

Among the most common environmental impacts is trampling, which damages vegetation and compacts the soil. This alters the organic content and microorganism composition in the soil, making it harder for plants to grow back, even in the absence of future disturbance.<sup>100</sup> The initial trampling has a greater environmental impact than stepping on an already disturbed area. Thus, conservation can better be achieved through efforts to concentrate visitors in a few designated areas rather than to disperse their impact. The high-elevation alpine ecosystems of the region are especially vulnerable. Recovery rates for some alpine flora in the Southern Rockies are ten to a thousand times longer than for lower elevation plants.<sup>101</sup> In Glacier National Park, effects of trampling remain for 30 years after disturbance ceases.<sup>102</sup> Trampling is often more severe in cases of off-highway-off-trail vehicle use (ATV), which cause erosion and sediment runoff as marshy areas and slopes lose their vegetative cover and inevitably erode. Campfires can lead to the loss of wood debris, which provides crucial food source and habitat for invertebrates, small mammals, and birds. Compared to usu-

al firewood collection practices, picking wood that can only be broken by hand has little impact.<sup>110</sup>

Harassment and disturbance of wildlife is another widespread human impact. Such occurrences can endanger animals by depleting their energy reserves. Disturbance of wildlife's habitat does not always occur due to heavy visitation. A single hunter or skier is often enough to cause elk or moose to flee. Some animals are more susceptible to disturbance such as wolves and bald eagles, which may not return to feeding sites for several hours after disturbance. Species that are usually not hunted and ones that are giving birth are more easily disturbed than others. Finally, cases of carelessness, such as escaped campfires and improper food storage which attracts bears and other animals, also result in widespread damage.

"Tread Lightly," a nonprofit, provides guidelines for responsible recreation for motorized users, urging visitors to minimize wheel spin, not widen the trail, and abide by existing regulations such as designated trails.<sup>103</sup> Similarly, the "Leave No Trace" guidelines, developed by the Leave No Trace Center for Outdoor Ethics, provide seven general rules for minimizing impact when camping.<sup>104</sup> A combination of education, management, maintenance of high-use trails and campsites, and restoration can minimize such negative impacts. Maintaining the high environmental quality of the region would sustain the recreational opportunities of the Rockies and their economic, health, and spiritual benefits.

### Competing Uses of Public Land

Balancing diverse opinions on how public lands should be used is an issue at the forefront of public debate that has existed since the establishment of federal lands. Conflicts abound not only between preservationists and developers but also among those who feel that the land should be managed strictly for its economic value. Gifford Pinchot, one of the nation's first well known foresters and father of the USFS, played a key role in creating a bridge

between multiple conflicting land ethics. Pinchot recommended a more comprehensive management strategy that places some restrictions on the extractive industries rather than completely halting all timber operations. According to him, “conservation is the foresighted utilization, preservation and/or renewal of forests, waters, lands and minerals, for the greatest good of the greatest number for the longest time.”<sup>105</sup>

### Land Designation and Multiple-Use Mandates

The idea of managing public land to accommodate as many citizens’ needs and wants manifests itself in both the multiple designations of land and the multiple-use mandates of the Bureau of Land Management (BLM) and the Forest Service (FS). As already mentioned, federal land is managed by different agencies within the Department of the Interior and the Department of Agriculture. Each agency has unique goals and priorities they are required to meet. As another measure, land itself can be established with unique purpose, such as the federally designated Wilderness Areas. In order to provide guidance to the FS and BLM with respect to the issue of balancing the concerns of multiple stakeholders and interest groups, Congress passed the Multiple-Use Sustainable Yield Act in 1960 (MUSYA) and the Federal Land Policy and Management Act in 1976 (FLPMA). MUSYA, which applies to the Forest Service, mandates that

“national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes”.<sup>106</sup>

FLPMA, which applies to BLM land, states that

“the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air, and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use”.<sup>107</sup>

The Act does not rank the different uses but rather instructs the agency to consider each of these uses when developing land management plans. Furthermore, the legislation considers ecological limitations of the land by requiring agencies to achieve maximum public benefit within the constraints of sustainable-yields so that the resources will be available for future generations.

### Criticism of the Multiple-Use, Sustained-Yield Mandates

The multiple-use mandates are often criticized for not placing adequate restriction on agency behavior resulting in decisions being made based on political and economic pressures rather than scientific and ecological factors. Michael Blumm highlights this challenge in his paper “Public Choice Theory and the Public Lands: Why ‘Multiple

Use’ Failed.”<sup>108</sup> According to Public Choice Theory, a small group of people with a large stake in the decision-making process tends to have a disproportionate affect on the outcome of the process. As a result, the common interest of the people is misrepresented and undervalued. In his words, “sustained yield means sustained production of all resources over the long term, and that multiple use means simultaneous resource management, not the landscape of segregated dominant uses we see today.”<sup>109</sup>

As long ago as 1985, Bruce Babbitt, who was at the time governor of Arizona, recognized the need for a redefinition of multiple uses.

“The old concept of *multiple use* no longer fits the reality of the New West. It must be replaced by a concept of *public use*... the highest, best and most productive use of western public land will usually be for public purposes –watershed, wildlife and *recreation*. Mining entry must be regulated, timber cutting must be honestly subordinated to regeneration and restoration of grasslands.”<sup>117</sup> (emphasis added)

Beyond placing a greater importance on public goods over private industry gains, management must also strive to use a more comprehensive and adaptive approach that stresses ecosystem science.

### Conclusion

Recreation and tourism are traditionally regarded as a cleaner, more sustainable, source of income than the prior economic sectors of the “extractive” era in the Rockies. The economic value of natural areas and recreational opportunities provides a powerful argument for their protection. Thus, the shift away from extractive and manufacturing economies toward service economies is commonly identified as a potential solution to historic environmental issues. This notion relies on the presumption that service economies are less harmful to natural resources than are industrial economies.

In the Rockies, however, the large recreation and tourism industry is inextricably linked to the region’s public lands and opportunities for outdoor recreation. The growth of this industry naturally leads to increased pressures on the natural environment in the form of hikers’ impacts, growing population, and expanding second-home developments and resorts in the Wildland-Urban Interface. Degradation of the open space and natural environment that characterize the West’s recreational foundation can undermine the recreation driven economy. Thus, the classic mantra of balance between environmental and economic interests becomes balance in recreation for the benefit of both the economy and the environment.

Post World War II the Rockies region has experienced a sustained boom in population, economic activity, and recreation. It is complex to find ways to balance these often contradictory pressures; however numerous tools and strategies exist and are being tried throughout the Rockies and beyond. The economic boom and population rise can



harmonize with careful planning of Western development, through initiatives such as “smart cities”. In the realm of recreation, “multiple use” offers options to separate incompatible types of recreation, such as cross country skiers versus snowmobiles. The diversification of the Western economy away from heavy resource extraction of the early decades, results in a diverse array of high skilled workers in the professional, scientific and technical services. These immigrants are both attracted to the region for its recreational opportunities and are capable of agitating for protection of the same open spaces, wildlife and environment. The old adage, “If it pays, it stays”, suggests that the recreational activities and the economic activity they stimulate will play a major role in the future of the Rockies region. Recognition of their multiple benefits calls for a re-examination of how we view tourism. Federal and state agencies, nonprofits, and the private sector play important roles in the careful management of this industry.

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