

## Chapter 2 Recreation

### Introduction

The U.S. Department of the Interior (DOI or Interior) manages iconic destinations in the national parks, wildlife refuges, cultural and historic sites, monuments, and other public lands that attract travelers from around the country and the globe. These recreation activities help support employment in tourism-related sectors of the economy through visitor spending. Eco-tourism and outdoor recreation on public lands can also have an impact on nearby economies, particularly in rural areas.

### Background

A recent report by the Outdoor Industry Foundation indicates that participation in outdoor recreation activities in 2011 was the highest since 2007, with over 140 million people enjoying 11.5 billion outings.<sup>5</sup> Participation was up among younger generations, with record participation among teenage girls, and young boys reversing the downward trend since 2006.

Kayaking participation grew by 27 percent over 2010, and downhill skiing has grown 59 percent since 2008. Forty-two percent of respondents indicated that the state of the economy influences their participation in outdoor recreation; however, over 50 percent planned to spend at or above previous levels on outdoor recreation activities, clothing and footwear.

The U.S. Forest Service (Cordell 2012) reports that the number of people who participated in outdoor recreation nationwide between 2000 and 2009 grew by 7.5 percent, and the number of activity days grew about 32 percent.<sup>6</sup> Participation in nature-based outdoor recreation increased by 7.1 percent over the period, and nature-based activity days increased by about 40 percent. The strongest growth has been in wildlife viewing and photography. Visitation at recreation and historic sites, and non-motorized boating also showed moderate growth in total activity days. Hunting, fishing, backcountry activities and motorized activities had 2009 participation levels similar to those of 2000, while skiing and snowboarding declined in total days over the period.

Interior provides opportunities for the public to recreate and enjoy our natural and cultural heritage. These opportunities are valuable, as evidenced by the millions of individuals who visit Interior-managed sites. The trip-related expenditures that these individuals make support communities with income and employment. But these expenditures only represent a lower bound on the public's value for these opportunities.

- Value added:\$25B;
- Economic contribution:\$45B;
- Employment supported: 372,000.

<sup>5</sup> The Outdoor Foundation. 2012. Outdoor Recreation Participation Report 2012. <http://www.outdoorfoundation.org/research.participation.2012.html>

<sup>6</sup> Cordell H. Ken. 2012. Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. Gen. Tech. Rep. SRS-150. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station, 167 p. <http://www.srs.fs.usda.gov/pubs/40453>

Participation in outdoor recreation activities varies across demographic groups. For example, hunting, fishing and backcountry or motorized activities are more popular with rural participants, while non-motorized boating and skiing or snowboarding is more popular with urban participants. Youth may be spending more time outdoors than popularly believed: only 16 percent of those aged 6-19 reported having spent 30 minutes or less outdoors on a typical weekday (11 percent for a weekend), while over 60 percent spent 2 or more hours outdoors (77 percent for a weekend).<sup>7</sup> Over 40 percent of these youth reported spending more time outdoors than a year ago. Typically this time is spent “hanging out or playing outdoors” or participating in activities like biking, jogging, walking and skateboarding, which may result in declining participation rates for the activities tracked by the Outdoor Foundation surveys and the National Fishing, Hunting, and Wildlife-Associated Recreation survey.

## Outputs

Public lands continue to be highly important for recreation opportunities. Visitation at units of the National Park Service and Bureau of Land Management was relatively stable from 1996-2012, while visitation to Fish and Wildlife Service units showed growth in the late 1990s, and remained relatively stable since 2000 (Table 2-1). Public lands are important for the participation in a number of outdoor recreation activities across the country, especially in the Western states. For example, 82 percent of primitive camping and 81 percent of developed camping occurred on public lands in the Western States, while 69 percent of primitive camping and 68 percent of developed camping took place on public lands in the Eastern States.<sup>8</sup> In 2012, an estimated 417 million visits were made by American and international travelers to Interior-managed lands. This included:

- 283 million visits at units of the National Park Service;<sup>9</sup>
- 47 million visits at units of the Fish and Wildlife Service;

## America's Great Outdoors

President Obama's America's Great Outdoors Initiative (AGO) focuses on supporting healthy outdoor spaces and making them more accessible to Americans. A number of efforts under the AGO initiative have bolstered outdoor recreation, conservation, and restoration of natural resources on public lands, as well as on working farms, ranches, and forests. One part of this initiative is the 2012 redesign of Recreation.gov website, a joint initiative among federal agency partners, including four Interior Bureaus. The seven million visitors who use the web site every year will be able to make reservations, see ready-made itineraries for destination cities, and search for activities on an interactive map. This and other AGO efforts can help promote visitation to our Nation's public lands, and support local economic growth and employment through visitor spending.

<sup>7</sup> Cordell, H. Ken, Carter J. Betz, and Gary T. Green. 2009. National Kids Survey, Part I: How Much Time Do Kids Spend Outdoors? <http://warnell.forestry.uga.edu/nrrt/nsre/IRISRec/IRISRec9rpt.pdf>

<sup>8</sup> Cordell, H. Ken. 2012. Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. Gen. Tech. Rep. SRS-150. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station, 167 p. <http://www.srs.fs.usda.gov/pubs/40453>

<sup>9</sup> NPS visitation data includes visitation for units in U.S. territories; these areas are not included in the economic contribution estimates.

- 59 million visits at units of the Bureau of Land Management; and
- 28 million visits at units of the Bureau of Reclamation.

**Table 2-1. Visitation to NPS, FWS, and BLM Sites, 1996-2012**

<b>Year</b>	<b>NPS</b>	<b>FWS</b>	<b>BLM</b>
	<i>(million visits)</i>		
1996	266	30	57
1997	275	30	61
1998	287	32	61
1999	287	35	55
2000	286	37	54
2001	280	39	52
2002	277	38	53
2003	266	40	53
2004	277	40	54
2005	274	38	56
2006	273	38	55
2007	276	40	58
2008	275	41	57
2009	273	41	51
2010	285	45	59
2011	281	45	58
2012	283	47	59

Source: 1996-2009 from Cordell (2012). FWS and BLM 2010-2012 from DOI's Economic Contributions (2011, 2012, 2013). NPS 2010-2012 from NPS Visitor Use Statistics.

### **Economic Contributions and Economic Values**

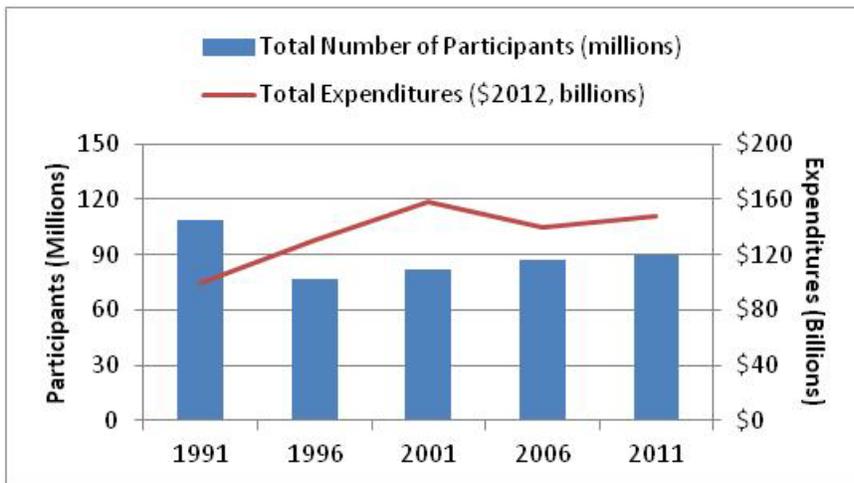
Recreation on Interior lands can contribute to the surrounding regional economies through visitor expenditures and the indirect and induced economic effects that result. Visits to Interior lands in FY 2012 supported about \$45 billion in economic activity, and about 372,000 jobs. Value added provided by visitors to Interior sites is estimated to be \$24.7 billion. Table 2-2 provides a summary. In 2012, recreation and entertainment represented 10 percent of all U.S. tourism goods and services direct output; the DOI direct recreation contribution represented about 2.2 percent of all tourism direct output.<sup>10</sup>

<sup>10</sup>Bureau of Economic Analysis (BEA) Travel and Tourism Satellite Accounts: <http://www.bea.gov/newsreleases/industry/tourism/2013/pdf/tour412.pdf>.

**Table 2-2. Value Added, Economic Contributions, and Employment Supported - Recreation**

Bureau	Estimated Value Added (\$ billions)	Estimated Economic Output (\$ billions)	Estimated Employment Supported (number)
NPS <sup>11</sup>	16.5	30.1	252,000
FWS	2.5	4.5	37,000
BLM	4.0	7.0	58,000
Reclamation	1.8	3.2	26,000
<b>Total</b>	<b>24.7</b>	<b>44.8</b>	<b>372,000</b>

A recent survey by the U.S. Fish and Wildlife Service shows the magnitude of spending by outdoor sportspeople on public and private lands across the United States. Expenditures by the 90.1 million hunters, anglers and wildlife-recreationists were \$145 billion in 2011. This equates to about 1 percent of gross domestic product.<sup>12</sup> Figure 2-1 below shows participation in fishing, hunting, and wildlife-related recreation over 1991-2011. Participation has increased from about 77 million in 1996 to about 90 million in 2011, a 17 percent increase. Expenditures (in constant dollars) have increased by about 13 percent over the same period.



**Figure 2-1. Participation and Expenditures in Hunting, Fishing and Wildlife-Associated Recreation<sup>13</sup>**

In 2011, an estimated \$7.1 billion was spent for trip-related recreation equipment on DOI land. Sixty-six percent of total trip-related equipment expenditures were for wildlife watching items, 17 percent for

<sup>11</sup> NPS estimates of value added, economic contributions, and employment are based on 2011 visitation data, and do not include visitation to NPS units in U.S. territories.

<sup>12</sup> USFWS, 2012. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

<sup>13</sup> Source: National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

hunting items, and 16 percent for fishing items. Expenditures on trip-related equipment were \$21 per day of recreation on DOI land.<sup>14</sup>

While expenditures are a useful indicator of the importance of outdoor recreation and visitation to cultural and historic sites, they do not measure the net economic value to either the individual participant, or when aggregated, to society. Net willingness-to-pay, or “consumer surplus” is an accepted measure of the economic value of recreation to individuals and society. Net economic value is measured as participant’s willingness to pay for recreation over and above what they actually spend to participate. Over the past 40 years, many economic studies have provided estimates of consumer surplus values associated with recreation activities.

Since recreation and other environmental amenities are not traded in markets, the tools used to measure their value are referred to as non-market valuation methods. These methods use data from related markets (revealed preference methods) or information from surveys of the public (stated preference methods) to estimate values for environmental goods and services. Some revealed preference methods include travel cost models and hedonic pricing methods. Stated preference methods include contingent valuation and conjoint analysis (survey techniques that attempt to determine the value that people assign to a specific amenity or group of amenities). Benefit transfer techniques that employ specific and accepted methods are also often used to apply estimates from previous studies to new situations when additional primary research is not feasible.

Many studies have been conducted to estimate these values for specific recreation sites and recreation uses using a variety of economic analyses. Several reviews of the recreation economic valuation literature have been completed over the years including an on-going effort at Oregon State University. Figure 2-2 shows mean estimated “use” values for different recreation activities for studies completed in the United States and Canada between 1958 and 2006 (all values have been converted to 2010 US\$).

The Harvard Kennedy School of Government and Colorado State University have teamed to conduct the first-ever, comprehensive economic valuation study of the National Park Service. This study will estimate total economic values for the entire 398-unit National Park System and the more than 30 NPS programs

## Increasing International Travel to the United States

International spending on U.S. travel and tourism-related goods and services set an all-time record of \$168 billion in 2012, an 10 percent increase from 2011, and supported an additional 103,000 jobs for a total of 7.6 million industry jobs. President Obama signed an executive order in January 2012 to significantly increase travel and tourism in and to the United States, with a goal of welcoming 100 million international visitors annually by the end of 2021. As of the end of the 2012, total foreign visitation to the U.S. for the year was 61.1 million (source: <http://tinet.ita.doc.gov/view/m-2012-I-001/index.html>).

<sup>14</sup> USFWS, 2012. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. On all lands nationwide, 2011 total wildlife-related recreation expenditures were estimated to be \$144.7 billion. Thirty-eight percent was attributed to wildlife watching, 29 for fishing, 23 for hunting and 10 percent unspecified.

that operate outside of the national parks, such as the Rivers, Trails, and Conservation Assistance Program. In addition to estimating total economic values for these parks and programs, this study will also conduct a number of case studies of parks and programs to illustrate these values. The design of the study is currently underway, and it is expected to be completed in 2015.

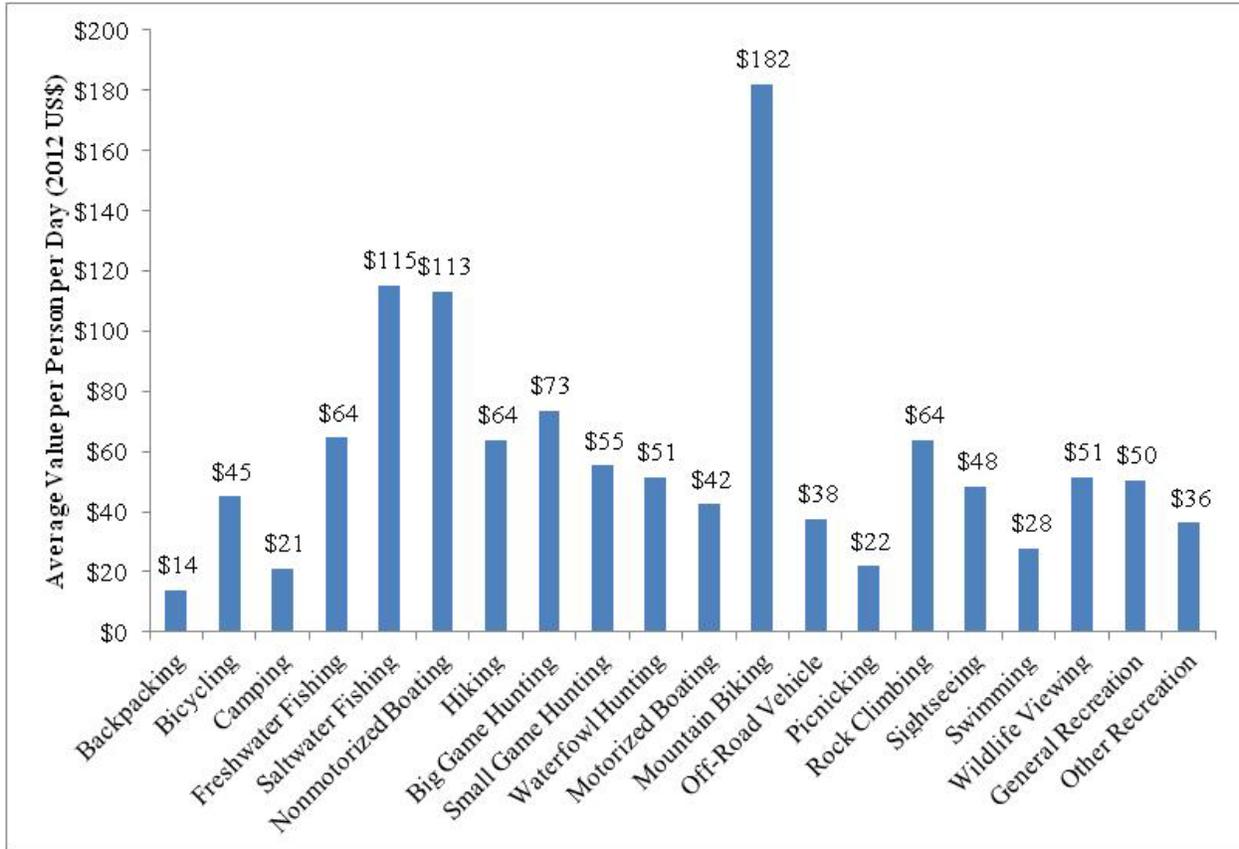


Figure 2-2. Average per-Day Net Economic Value for Outdoor Recreation Uses (2012-\$)<sup>15</sup>

<sup>15</sup> Source: Oregon State University Recreation Use Values Database (Available at: <http://recvaluation.forestry.oregonstate.edu/>)