

# Indicator 6.42:

U.S. Forest Sustainability Indicators <https://www.fs.fed.us/research/sustain/>

## Number, type, and geographic distribution of visits attributed to recreation and tourism and related to facilities available

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### What is the indicator and why is it important?

Indicator 6.42 provides a measure of recreation and tourism use of forests and the recreation infrastructure and resources supporting that use. This indicator helps us to understand the popularity of forest recreation, how recreation patterns vary across the United States, and how that recreation compares to available recreation resources. This indicator also helps to assess the efficiency of investments in recreation infrastructure.

Outdoor recreation is important because, among other things, it can improve the well-being of communities and individuals. Recreation visitors to Federal public lands spend more than \$49 billion dollars in the communities around those lands, supporting 826,000 jobs across the United States. In addition, recreation and leisure is associated with improved health: those recreating on Forest Service lands burn upwards of 289 billion calories each year (Kline et al. 2011). Finally, for many, outdoor recreation is an important connection to cultural heritage.

### What does the indicator show?

Engagement in recreation—In 2018, more than 151 million people over the age of 5 (a little less than half the U.S. population) participated in outdoor recreation at least once during the prior year (Outdoor Foundation 2019). Combined, those engaging in outdoor recreation reported more than 10 billion recreation outings—an average of about 67 outdoor recreation outings per year, per participant. Outdoor recreation can take place in a wide variety of natural resource settings—such as forests, rangelands, woodlands, grassy areas, or water. However, some outdoor recreation pursuits are more commonly

associated with forested settings. Among frequently forest-based activities, hiking and camping are the most popular in the United States, with approximately 15 percent of the population engaging in each activity (table 42-1).

The National Forest System (NFS) managed by the U.S. Department of Agriculture, Forest Service represents the greatest amount of forested land in the United States open to public recreation (see indicator 6.41). Currently, there are approximately 150 million outdoor recreation visits each year to NFS lands (USDA Forest Service 2019). Hiking/walking, downhill skiing/snowboarding, and viewing nature are the most common primary recreation activities on NFS lands. Beyond just the primary activity on their NFS visit, people most commonly report they engaged in hiking/walking, viewing nature, hanging out/relaxing, and viewing wildlife.

National Wilderness Preservation System—Wilderness is a Federal land designation that provides for undeveloped landscapes where natural processes are generally allowed to proceed without human intervention. The United States has more than 110 million acres of designated wilderness. The 1964 Wilderness Act establishing the wilderness designation notes the defining characteristics of wilderness include “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” Wilderness is often presented as an exemplar of pristine outdoor recreation opportunity. Wilderness is managed by four Federal public land agencies: the Bureau of Land Management, National Park Service (NPS), U.S. Fish and Wildlife Service (USFWS), and the Forest Service. The National Park Service manages the greatest number of wilderness acres. However, more than 75 percent of the wilderness acres managed by the NPS (and 90 percent of those managed by the USFWS) are in Alaska (Hoover 2014)—often in non-forested places. The NFS manages more than 36 million acres of wilderness with most wilderness areas including at least some forest or

Table 42-1—Engagement in outdoor recreation activities that commonly take place in forested settings, 2018.

Activity	Participants	
	U.S. Share of population	Number (1,000s)
Hiking	15.9%	47,960
Camping (car, backyard, backpacking or rv)	13.9%	41,674
Wildlife viewing	6.8%	20,556
Hunting (all)	5.2%	15,689
Backpacking (overnight)	3.5%	10,540
Trail running	3.3%	10,010
Bicycling (mountain/nonpaved surface)	2.9%	8,690
Skiing (cross-country)	1.7%	5,104
Snowshoeing	1.2%	3,530

Source: Outdoor Foundation 2019

woodland. National Forest System wilderness receives more than 9 million visits each year. Based on visitor survey data collected on the NFS, hiking is the primary recreation activity for about 70 percent of the visits to NFS wilderness; backpacking is the primary activity on an additional 6 percent of visits. Those hiking in NFS wilderness most commonly reported they were also viewing nature (60 percent of wilderness hiking visits) and viewing wildlife or relaxing/hanging out (45 and 42 percent of wilderness hiking visits). Assuming that the NFS contributes 80 percent of the visits to the entire National Wilderness Preservation System (Hjerpe et al. 2016), there are more than 11 million visits annually to designated U.S. wilderness.

Trails and campgrounds on the National Forest System—Hiking is the most popular outdoor recreation activity in the United States, with about 16 percent of the population engaging in the activity at least once a year (OIA 2019). The NFS includes 100,000 miles of trails for non-motorized recreation (e.g., hiking, backpacking, mountain biking, and horseback riding) (USDA FS 2017). Of those, 32,000 miles are in designated wilderness and are available for non-mechanized recreation. The NFS trail system is very popular. Hiking/walking by itself accounts for more NFS visits (37 million) than any other single activity on the NFS and most other activities combined. In addition to non-motorized trails, there are 60,000 miles of trails for off-road motorized recreation such as riding dirt bikes or using all-terrain vehicles. Across the NFS, motorized trail use is the primary activity on about 4.5 million visits each year.

Nationally, camping is the second-most popular U.S. outdoor recreation activity; about 14 percent of the population goes camping or backpacking. Camping is the primary activity on more than 4 percent of NFS visits

(6 million visits) and 10 percent of all visits (around 15 million visits) involve camping on NFS land at some point. The majority of NFS camping use relies on the 4,700 developed campgrounds on the NFS (table 42-2). The majority of those campgrounds have moderate levels of development: frequently with non-flush toilet facilities, potable water, campfire rings, picnic tables, and paved campground roads. The NFS has a lesser number of highly developed camping facilities that typically include flush toilets, power/water hookups for recreational vehicles, and shower facilities. In addition to developed recreation facilities, campers on NFS lands also use dispersed and undeveloped forested areas for their overnight stays.

## What has changed since 2010?

The share of the population engaging in outdoor recreation has remained steady since 2010 (Outdoor Foundation 2019). In that time, the share of the population engaging in camping and wildlife viewing has declined slightly, while engagement in hiking and trail running has increased slightly. Although the share of the population engaging in recreation has been steady, because of population growth, the number of participants in all outdoor recreation activities has increased by about 13 million (9 percent) since 2010 (Outdoor Foundation 2019). Among frequently forest-based activities, hiking and trail running have gained about 15 million and 5 million participants respectively, while viewing wildlife lost about 1 million participants. Counter to the general growth in number of participants, the average number of outdoor recreation outings per participant has been slowly declining over the past decade (Outdoor Foundation 2019). This change

Table 42-2—Number of campgrounds on U.S. National Forests by region and level of development, 2020.

Indicator Region	NFS Region	Moderately developed	Highly developed	Total
<b>National total</b>		<b>3515</b>	<b>1229</b>	<b>4705</b>
North Region	R9 Eastern	292	129	421
South Region	R8 Southern	334	119	447
Rocky Mountain Region	R1 Northern	350	119	457
	R2 Rocky Mtn.	427	95	518
	R3 Southwestern	213	138	340
	R4 Intermountain	492	174	664
<b>RM Regional total</b>		<b>1482</b>	<b>526</b>	<b>1979</b>
Pacific Coast Region	R5 Pacific SW	672	263	935
	R6 Pacific NW	715	180	891
	R10 Alaska	20	12	32
<b>PC Regional total</b>		<b>1407</b>	<b>455</b>	<b>1858</b>

Source: Cyndee Maki, Forest Service INFRA data base (year 2020).

has resulted mostly from a decline among the most avid participants—those engaging in an outdoor recreation activity more than 104 times each year.

The number of visits annually to the NFS increased slightly (4 percent) between 2010 and 2019 (fig. 42-1). Visitation has increased in designated wilderness (33 percent increase or 2.3 million more visits) and at day-use developed sites (e.g., interpretive areas) (12 percent increase or 8.4 million more visits). Visitation to overnight developed sites declined during the period, while recreation in the undeveloped areas of the NFS was generally steady.

The number of campgrounds on the NFS has declined slightly over the decade. The number of moderately developed campgrounds declined by about 280 (8 percent) since 2013, while the number of highly developed campgrounds increased by about 20 (2 percent). Some moderately developed campgrounds may have moved into the highly developed category, but most of them likely experienced reductions in services (e.g., removal of potable water or toilets) that reduced their level of development below the “moderately developed” category.

## Are there important regional differences?

NFS recreation use—About 75 percent of the visits to the NFS are in the West, where the bulk of NFS lands are located (USDA Forest Service 2019). Within the Eastern United States NFS lands in the South had approximately 10 million more visits than those in the North. The West had about 1.2 visits per acre, the South 1.7 visits per acre, and the North 1 visit per acre. The popularity of specific outdoor recreation activities is generally consistent across the NFS, with some important exceptions. Cross-country skiing and snowmobiling are most common in the snowy North, West, and Rocky Mountain Regions. Fishing is a much more common activity in the North than elsewhere and hunting is more common in the South and in the Northern States of the Rocky Mountain Region. Hiking is a popular activity in every region, but in Arizona and New Mexico (part of the Rocky Mountain Region) and Alaska (part of the Pacific Coast Region) nearly 40 percent of NFS visits are for hiking (compared to about 25 percent of visits across the NFS as a whole).

NFS campgrounds—The Pacific Coast Region has more than 1,800 NFS campgrounds—more than double that of any other region (table 42-2). Conversely, the Eastern Region has the fewest NFS campgrounds. The levels of campground development are generally consistent across regions, except in Arizona and New Mexico (part of the Rocky Mountain Region) where approximately 40 percent of the campgrounds are highly developed campgrounds—greater than in other regions. That pattern may reflect the need for electric connections for cooling as well as the influx of recreational-vehicle-driving retirees during the winter months.

Wilderness—Nearly 95 percent of the wilderness acres managed as part of the NFS are located in the West, with nearly equal amounts (16 and 18 million acres) located in the Rocky Mountain and Pacific Coast Regions. The South Region has less than 1 million acres of wilderness, while the North Region has about 1.5 million acres. This distribution reflects, in part, the distribution of land that met the requirements for designation under the Wilderness Act. The distribution of NFS Wilderness across the United States means that those living in the West have markedly greater access to wilderness compared to those living elsewhere.

## Why can't the indicator be fully reported at this time?

Outdoor recreation can happen in a variety of forested and non-forested settings. In this report, we describe recreation use patterns for outdoor recreation in general and for a set of activities that often take place in forested settings. However, we are unable to definitively consider outdoor recreation visits only to forested areas. In addition, we are unable to fully characterize the importance of forest availability to engagement in outdoor recreation.

We rely on survey data collected from visitors to NFS lands to characterize recreation use of Federal public lands. The systematic, temporally consistent, and comprehensive visitor surveying system used on the NFS is currently unique among the Federal agencies (Leggett et al. 2017). As a consequence, we are unable to fully characterize recreation use on other Federal land agencies.

There is incomplete data on outdoor recreation infrastructure in general and the extent that infrastructure is associated with forests. Here we have focused on the recreation resources of the NFS—the most forested, largest land area available to public recreation—to provide insight on the recreation infrastructure availability and the relationship to current use patterns.

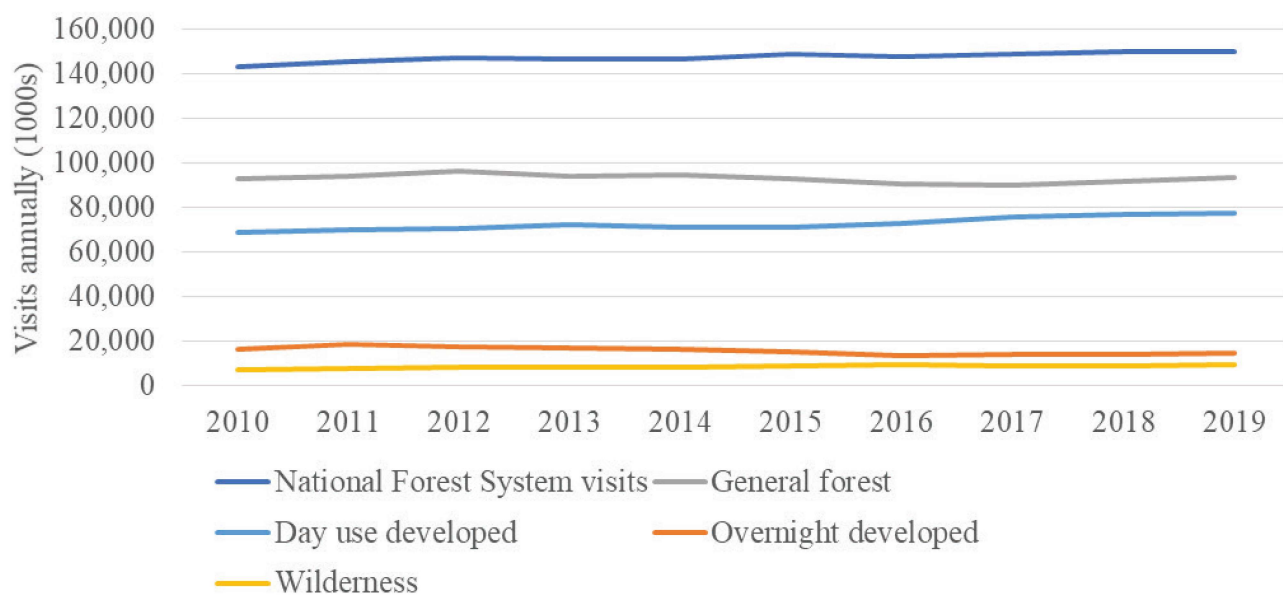


Figure 42-1—Recreation visits to the NFS in whole and specific recreation resource types. An individual may visit multiple resource types during a single visit to the NFS. Source: USDA Forest Service National Visitor Use Monitoring Program.

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