SHIFTING TRENDS IN WILDERNESS RECREATIONAL USE

Robert C. Lucas and George H. Stankey[1]

Abstract- Wilderness recreational use grew rapidly during most of the post World War II era, but growth has slowed or reversed recently. National park backcountry use began declining in the 1970's and national forest use slowed or declined in the 1980's in many areas. Reasons are unclear, but an aging population and changing interests are the most Apparent causes. This change has implications for wilderness allocation and management.

INTRODUCTION

Wilderness recreational use has grown greatly over the last 40 years (fig. 1). Growth has often been considered inevitable, and references to 'burgeoning growth,' *explosive increases,* and so on have commonly been made by managers and interested individuals. Continued rapid growth has been assumed in most discussions of the need for additional wilderness, impacts to ecosystems, crowding, and the need for regulation and control of use.

But the rate of increase in wilderness recreational use has been slowing for some time, and recently it has leveled off and even declined in many areas. This shift in wilderness use trends has not been widely recognized. It will be described, possible reasons for it will be explored, and policy and management implications will be considered.

WILDERNESS USE DATA SOURCES

Of the four agencies that manage lands in the National Wilderness Preservation System (NWPS), Forest Service wilderness use data are most complete and cover the longest period. Total use, including overnight and day use, has been estimated for each wilderness and primitive area since 1946, and some data go back to 1941 (Elsner 1985).

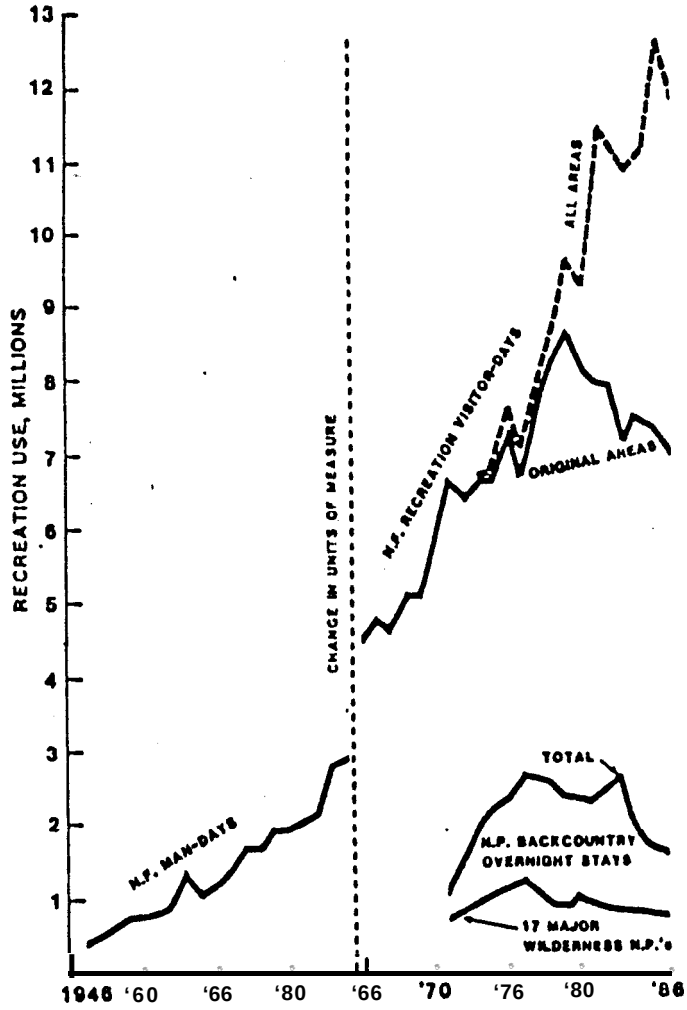

Figure I.-Trends In recreational use of national forest and national park wilderness and backcountry, 1946-86.

National Park Service data are more limited and cover a shorter period. Data are not available specifically for designated wildernesses, but, since 1971, overnight stays in backcountry have been reported. Most national park backcountry (roadless,

[1]Project Leader and Research Social Scientist, Intermountaln Research Station, U.S. Department of Agriculture, Forest Service, Missoula, MT; Visiting Principal Fellow, Juring-gal College of Advanced Education, Lindfield, New South Wales, Australia

undeveloped areas) provides use opportunities similar to those found in national forest wilderness. However, although day use is common In many wildernesses, often accounting for a majority of visits (Roggenbuck and Lucas 1987), it is not reported for national park backcountry.

Recreational use of wildernesses managed by the Fish and Wildlife Service and the Bureau of Land Management is minor and data are scarce (Washburne and Cole 1983). This discussion will omit both.

Besides variation in units of measure and length of records, the National Park Service and Forest Service wilderness recreation data also vary in accuracy. Park Service figures probably are more accurate than Forest Service data for most areas, although both have serious problems.

As use figures are aggregated for large regions or for the Nation, errors probably cancel out to some extent and remaining errors have a diminished effect on large amounts of more reliable data. Particularly at the national level, we think wilderness use data are good enough to be worth analyzing, but with some caution, Trends are most reliable if considered over a period of years, rather than emphasizing change from one year to the next. Although we could wish for better data, these are all we have, and we will discuss them without repealed warnings of the need for caution, first for national forests, then for national parks.

TRENDS IN NATIONAL FOREST WILDERNESS USE

Table 1 shows the growth in national forest wilderness use from 1946 through 1986, roughly by decades. Changes in definitions of the units for reporting use between 1964 and 1965 make it impossible to compare directly the growth rates over rho 40 years. During the 18 years from 1946 through 1964, however, use grew sevenfold, at an average annual growth rate of 11.5 percent. In the 21 years lollowing passage of the Wilderness Act, use has increased more than 2-1/2 fold, averaging 4.4 percent per year, Lately, growth has slowed even more. From 1981 through 1966, use grew only 5 percent, or, on an average annual basis, less than 1 percent per year, During the 1980's, year-to-year changes have been negative more often than positive.

In recent years, part of the increase In use stems from the addition of new wildernesses. At the time of passage of the Wilderness Act in 1964, the national forests contained 88 units reporting wilderness use. This included 54 areas designated as wilderness by the Act and 34 primitive areas, managed as wilderness pending review for possible wilderness classification. Over the years, all but one of these primitive areas have been reclassified as wilderness. Many new areas also have been added to the NWPS; al present there are 330 national forest units in the NWPS. To trace underlying trends in wilderness use, it is necessary to consider this major expansion in the number of units reporting use (Petersen 1981).

Table 1. --Growth in total National Forest wilderness[1] use, 1946-86

Year	Use	Average annual change
	Thousands	Percent
	Man-days[2]	
1946	406	--
1355	1,175	12.5
1964	2,872	10.4
	Visitor-days[3]	
1965	4,522	--
1975	7,802	5.6
1986	11,233	3.4

[1] Includes use of primitive areas.

[2] A man-day was defined as one person present for 1 day, but quarter days varied: one-quarter was l5 minutes to 3 hours, one-half was 3 to 5 hours, three-quarters was 5 to 7 hours. and a full man-day was 7 to 24 hours. Thus, man-days cannot be converted to visitor-hours or visitor-days.

[3] A visitor-day is defined as one person present for 12 hours.

To do this, we can separate the growth of recreational use of the original 88 units, the 'core system,' from that of new areas (fig. 1). The size of the core system has been relatively stable, although some areas have been expanded. Since 1965, the rate of annual growth in use of the core system declined steadily:

Years	Average annual change (Percent)
1965-70	5.3
1970-75	4.5
1975-80	2.3
1980-86	-2.4

From 1965 through 1986, use of the core system has grown at an average annual rate of 2 percent, about half that reported for the total national forest wilderness system. Since 1980, use has declined. The peak year of use of the core system occurred in 1979; in 1986, use of the core system was 87 percent of 1979 use.

Still, in absolute terms, the growth in national forest wilderness use is impressive (fig. 1), exceeding that for many other forms of recreation taking place in the national forests. As a percentage of total national forest recreation use and, for comparison, as a percentage of national forest developed campground total use, wilderness use has grown steadily except in the last year for which data are available:

Year	Percent of total use	Percent of campground use
1941	0.4	2.2
1946	1.2	5.1
1951	1.8	--
1956	2.0	--
1961	1.9	7.2
1964	2.1	9.0
1965	2.8	13.3
1970	3.4	16.9
1975	3.7	19.9
1980	4.0	23.0
1985	5.6	37.0
1986	5.3	34.4

Wilderness use has increased its share of national forest recreation in most of this period, despite recent slower growth in wilderness use because most other types of national forest recreation also have leveled off or declined since 1980.

TRENDS IN NATIONAL PARK WILDERNESS USE

Change in national park backcountry use is shown for 5-year periods in table 2. During the first 5 years following 1971, use grew rapidly, more than doubling from 1.1 million overnight stays to a peak of 2.6 million in 1976. This was followed by a long decline (fig. 1). Reported use in 1986 was less than in 1973, despite a 20-percent growth in the number of units reporting backcountry use. From 1976 through 1986, national park backcountry use declined about 37 percent, while in the same period national forest wilderness use (including new areas) grew nearly 65 percent. (Use of the core system grew only 4 percent.) There is little association between the patterns of change in annual use for the two wilderness-managing agencies; from 1971 through 1986, there are only 5 years when the changes reported by the two agencies were in the same direction, up or down.

Table 2.--Changes in total overnight stays in National Park backcountry, 1971-86

Year	Overnight stays	Average annual change
	Thousands	Percent
1971	1,096	--
1976	2,609	18.9
1981	2,330	-2.3
1986	1,645	-6.7

The decline in national park backcountry use is further confirmed by examining the year of peak use and contrasting it with 1986. As table 3 indicates, in 17 national parks with significant backcountry or wilderness portions, the peak year of use in 12 instances was before 1980 and in only one case was it as recent as 1982. In Shenandoah National Park, for example, 1986 use was only 32 percent of the 1973 peak.

The decline in national park use is not limited to the backcountry. All recreational overnight stays in the national parks declined 8 percent from a peak in 1977 through 1986, but backcountry stays declined more.

Table 3.--Peak year of wilderness use, National Park areas'

National Park	Peak year of overnight backcountry use	Percentage of peak year use occurring in 1986
Yosemite (CA)	1971[2]	48
Everglades (FL)	1973	61
Olympic (WA)	1973	39
Shenandoah (VA)	1973	32
Denali (AK)	1976	91
Grand Canyon (AZ)	1976	45
Great Smoky Mountains (NC-TN)	1976	55
Grand Teton (WY)	1976	44
Glacier (MT)	1977	49
Rocky Mountain (CO)	1977	56
Mount Rainier (WA)	1979	76
Voyageurs (MN)	1979	76
King's Canyon (CA)	1980	54
Sequoia (CA)	1980	56
North Cascades (WA)	1981	65
Yellowstone (WY-MT-ID)	1981	57
Big Bend (TX)	1982	89
Total overnight back-country use, all National Parks	1976	62

[1] Based on annual National Park Statistical Abstracts.

[2] This was the year before backcountry permits were issued and data may be unreliable. The annual National Park Statistical Abstracts show 1972 with almost as much use as 1971, but van Wagtendonk (1981) shows 1975 as the peak, with about the same use as 1971 and 1972, with 17 percent more use than shown in the Statistical Abstracts.

For comparative purposes, data for more than 20 national forest core system wildernesses (chosen mainly by elimination of those areas that showed such extreme fluctuations from year to year that the data seemed unreliable) are also shown (table 4); three show 1986 as the peak year, but a number are similar to the national park areas, with most reporting their peak year as 1982 or earlier.

TRENDS IN RELATED ACTIVITIES

Examining the growth in activities associated with wilderness use provides mixed results when compared to trends in wilderness recreational use. For example, membership in the Sierra Club grew from 84,000 in 1970 to 244,000 in 1983, a rate of nearly 12 percent annually, and many other environmental organizations also grew rapidly (Hendee 1984). In contrast, the National Sporting Goods Association described the traditional outdoors market as a mature, or perhaps declining, market. Furthermore, national forests in Montana and northern Idaho, and some other areas as well, indicate fewer volunteers for wilderness work and fewer applicants for wilderness ranger positions.

We must conclude, therefore, that wilderness use, like participation in many other recreational activities, has begun to stabilize. Much of the apparent growth is accounted for by the rapid expansion in the number of units that report wilderness use, primarily those under national forest administration. This growth, however, results largely from bookkeeping, as new areas with a history of recreational use are tabulated as wilderness. Previously, their use was included within some other recording category.

POSSIBLE REASONS FOR SLOWING GROWTH

Many factors can be considered as potential causes of slower growth. Possible reasons are complex and uncertain, but an aging population and changing tastes appear to be key factors. We will examine these and other factors and try to judge their roles.

Table 4.--Peak year[1] of wilderness use, selected National Forest core system wildernesses

Wilderness	Peak year of wilderness use	Percentage of peak year use occurring in 1986
San Gorgonio (CA)	1966	49
Three Sisters (OR)	1973	76
Desolation (CA)	1974	74
Hoover (CA)	1975	26
John Muir (CA)	1975	33
Pecos (NM)	1978	91
Mazatzal (AZ)	1978	64
Bridger (WY)	1979	38
Sawtooth (ID)	1979	71
Great Gulf (NH)	1980	53
San Jacinto (CA)	1980	26
Selway-Bitterroot (ID-NT)	1981	65
Mount Jefferson (OR)	1981	93
Jarbridge (NV)	1981	69
Bob Marshall (NT)	1982	82
Absaroka-Beartooth (MT)	1982	77
Boundary Waters Canoe Area (MN)	1982	74
Eagles Nest (CO)	1983	71
Linville Gorge (NC)	1984	47
Teton (WY)	1985	80
Cloud Peak (WY)	1986	100
High Uintas (UT)	1986	loo
Glacier Peak (WA)	1986	100

[1]Based on annual summaries of wilderness use from the Forest Service national office.

Changing Age Structure

Virtually all studies of recreation participation point to age as one of the most powerful predictive measures of future participation (Marcin and Lime 1977; McCool and Frost 1987). However, English and Cordell (1985) found that recreation participation rates for older age groups have risen steadily since 1960, a fact that suggests that the normal dampening effects of increased age on recreation participation might be less in the future than in the past. One of the most fundamental changes in American society today is the increasing age of the population. As the following tabulation shows, the increase, especially recently, has been substantial, but with uneven effects in different age categories (table 5).

Although the population is aging, changes in the age classes of people who visit wilderness the most are not striking. The number of people in the 18-24

Table 5.--Increases in United States population with selected percentage changes, 1960-85

Age group	Total population				Percent change	
	1960	1970	1980	1985	1970-85	1980-85
	Millions					
Under 18	64	70	63	63	-10	0
18-24	16	24	30		17	-7
25-34	23	25	37	28	68	14
35-44	24	23	26	32 42	39	23
45-54	20	23	23	23	0	0
55 and over	32	39	47	51	31	9

age class has declined slightly since 1980, but the 25-34 class, the most inclined to visit wilderness of any age class in many areas, increased throughout the period (especially in the 1970's when use grew rapidly). The 3544 category, also common wilderness visitors, grew, especially in the 1980's, as the 'baby boomers' moved up a step. Decreases in the under 18 and increases in the 55 and over classes should have had little effect because neither age class is a major wilderness user in most places. The decrease in numbers of children and teenagers is likely to reduce potential wilderness use in future decades, however.

Population age trends are a partial explanation of slower growth in wilderness use, but clearly not the whole story. One analysis concluded that projected shifts in the age structure, by themselves, would lead to a future rate of growth for several national forest wildernesses in Montana approximately half that for the 1970's and early 1980's (Polzin 1987).

Changes in Population Distribution

While changes in the age structure of the population have the potential to affect trends in total wilderness use, spatial changes in population distribution could affect trends in specific regions. Changes in population distribution, however, show little relationship to changes in wilderness use. For example, from 1975 to 1985, the population of California grew 22 percent and classified national forest wilderness acreage more than doubled, but recreational use during this same period fell 29 percent. Backcountry use of national parks in California also declined sharply. The large migrations to the South and West during the 1970's are not matched by significant growth in wilderness use in those areas.

Constraints on Leisure Time

Contrary to the conventional idea that leisure time will expand in the future and make it possible for people to enjoy more recreation, leisure time appears to be contracting. From 1975 to 1984, the median workweek increased from 43 to 47 hours, and leisure time per week shrank from 24 to 18 hours (President's Commission on Americans Outdoors 1986). Another factor that may affect likely wilderness visitors is the increase in households in which both spouses work (Hornback 1985). From 1975 to 1986, the number of married women working at paid jobs grew 32 percent (U.S. Department of Commerce, Bureau of the Census 1986). Although the discretionary income of such households increases, the coordination of vacations and free time between spouses often is difficult because of differing work schedules.

Effects of System Expansion

One possible explanation for the declining use of long-established core-system wildernesses in both national forests and national parks might be the large increase in the size of the NWPS. A prospective wilderness visitor now has 445 established wildernesses to choose from, 316 of which were added in 1980 or later. Although some of the decline in use of older areas is likely attributable to dilution of demand due to system expansion, the effect is probably limited for several reasons.

First, the market population is not fixed. If a new area is classified as wilderness, many of the visitors to it are the same people who visited the area before it was so designated. The wilderness is new, in an official sense, but the land and its recreational attractions were always there. Other visitors could be new entrants into the market, perhaps nearby residents attracted by the publicity generated by wilderness designation. This last group exemplifies the so-called 'designation effect,' the stimulation of demand that some think results from calling an area wilderness (McCool 1985). Although new areas might divert some use from older areas, they would be expected to add to total use of the system, thus accelerating the rate of growth in use, not causing it to slow down, as has been happening.

Second, growth of wilderness recreation opportunities is less impressive if acres are considered rather than number of areas. The almost 57 million acres of new wilderness in Alaska are best left aside because their great distance from most of the U.S. population results in light use. The wilderness system in the conterminous 48 States now includes 32 million acres, about double the pm-1980 total. But most of the acreage growth outside Alaska occurred in one year, 1984 -too recently to help explain the decline from use peaks for core system areas in the 1970's and early 1980's.

Third, some of the growth in acres and numbers of areas in the NWPS results from shifts of national forest primitive areas to wilderness, or official designation of portions of a national park as wilderness. In both cases, the recreational use was already being counted. There is little basis for any designation effect because these areas have long been specially designated and widely perceived as wilderness even though not technically so classified, and we have defined them as part of the core system. This type of system growth appears unrelated to dilution of demand.

Fourth, the new areas generally are less attractive as recreation sites than the older wildernesses. New areas usually are smaller and have less spectacular scenery. Although the Wilderness Act clearly indicates that wilderness has many purposes besides recreation, the original national forest wildernesses and the national parks were established mainly because of scenic quality, natural attractions, and recreation potential. These original areas commonly are perceived as the crown jewels of the wilderness system, and many of the new areas are not strong competitors for visitors.

Finally, whatever effect major expansion of the wilderness system may have had on past use of older areas, its future effect probably will be less. The recent large expansion of the system (over 300 areas and 71 million acres added from 1980 through 1985) is not likely to be duplicated in years to come.

Effects of Changing Educational Levels

The most distinguishing socioeconomic characteristic of wilderness users is their high educational level (Roggenbuck and Lucas 1987). Trends in number of Americans enrolled in colleges and universities suggest lessening impetus for growth in wilderness recreation. Enrollment grew rapidly in the 1960's, increasing 126 percent from 1960 through 1970. Growth slowed to 32 percent from 1970 through 1980. From 1980 through 1985, enrollment grew only 10 percent, with older students, over 24, accounting for most of the increase-another reflection of the aging postwar 'baby boomers." This likely has contributed to slower growth in wilderness use.

Changing Gasoline Cost and Supply

The impact of changing gasoline prices on travel for wilderness recreation does not appear significant. First, during the 1973-74 oil embargo, when gasoline prices rose sharply, use of national forest wilderness continued to grow (although the rate of growth slowed). Second, in recent years, increases in the price of gasoline have not kept up with inflation, in effect, making gasoline cheaper. Despite this, the use trend has been downward.

Availability of gasoline has been a problem from time to time, but typically this has been a localized and temporary situation, usually before the recent slowdown in growth of use. Most wilderness visitors originate from areas relatively close to the wilderness, and it seems unlikely that either energy cost or availability problems would have a significant effect on overall use.

Changing Interests and Preferences

The socioeconomic variables examined here, particularly age and perhaps education, appear to explain only part of the declining rate of wilderness recreation participation. Thus, the question is whether public interest in wilderness is beginning to wane. Was the rapid growth witnessed in the 1960's and early 1970's simply a function of the heightened interest in the environment that characterized that period? Could declining rates of participation be partly a reflection of increasing dissatisfaction among users?

First, wilderness probably is not losing broad public support. A national survey by Opinion Research Corporation in 1977 found strong public support (Cordell and Hendee 1982). A more recent statewide poll conducted in Montana (Utter 1983) also found strong support- almost 85 percent of the respondents favored designation of wilderness. Although these cross-sectional studies do not permit an assessment of the trends in public attitudes toward wilderness, they nevertheless suggest that there is a high and continuing interest in wilderness preservation. (Perhaps the "yuppie" lifestyle supports the concept of wilderness, but not its actual use.)

Second, we can examine general population surveys of recreation participation to see how involvement in wilderness-related recreation activities is changing. The mixture of activity definitions and methodologies makes it difficult to interpret these results. However, it appears that in recent decades the percentage of U.S. citizens participating in wilderness-related activities has remained relatively stable at about 5 percent. Thus, the proportion of the population whose recreation interests might likely be met in wilderness settings does not appear to be changing greatly, although the frequency or length of visits may have changed.

Third, there appears to be little likelihood that rising dissatisfaction is leading to declining use levels in wilderness. Most studies of wilderness users report high levels of satisfaction (Van Horne and others 1985). Lucas (1985) found Bob Marshall wilderness visitors surveyed in 1970 and 1982 about equally satisfied. Furthermore, he found that in 1970 over one-third of the experienced visitors found conditions worse than on earlier trips, but in 1982 only 16 percent felt this way. We are not aware of any similar studies of national park backcountry visitors, although their large declines in use and generally greater regulation of visitors raise speculations about possible effects of dissatisfaction.

Finally, it is possible that the declining rates of wilderness recreation participation might be a function of the increasing levels of diverse recreation activity by many people. Van Horne and others (1985) report that since 1960 the percentage of the population participating in many activities has risen. At the same time, data from the National Recreation Survey also indicate that although 18 percent of the respondents said they were spending more time at present in outdoor recreation, 33 percent said they were spending less (Van Home and others 1985). What these data may suggest is that there is simply not enough time to do the increasing number of things people might want to do, including wilderness recreation.

An analysis of entry into wilderness recreation by new participants, dropout of former participants, and changes in amount of participation by active wilderness recreationists, modeled after the study of camping by Kottke and others (1975), would clarify the changes taking place and the role of preferences. Limited data of this sort are available for backpacking and day hiking (Van Horne and others 1985). In the previous 2 years, 17 percent of all backpackers started the activity-a good recruitment rate, and only 5 percent stopped backpacking. Persons who said they expected lo start backpacking in the next 2 years equaled 14 percent of the current backpackers. Day hiking figures display a similar pattern of good recruitment, little dropout, and considerable potential future participation. None of this suggests declining participation.

Changing Patterns of Wilderness Use

. Lengths of stay have become shorter in some areas, and groups have become smaller (Lucas 1985), which would reduce visitor-day totals. Day use may have become more common relative to camping use, but day use is unreported for national park backcountry and, because it is difficult to measure, might go underreported for national forest wilderness.

Effects of Limiting Use

Use limits have been imposed in some areas in both national parks and national forests in the last decade or two, including the most heavily used wilderness of all, the Boundary Waters Canoe Area Wilderness. This could slow or eliminate further growth in use, but could it lead to declines? Van Wagtendonk (1981) examined this question in Yosemite National Park and concluded that use limits did not account for declines in backcountry use, although they did lead to changes in the timing and spatial distribution of use.

Changing Wilderness Images

Perhaps the image of wilderness recreation has changed in ways that might contribute to slackening use. Many visitors probably feel pressures to use wilderness with minimum impact. This is generally a positive development, but it may create anxiety about what to do and guilt about mistakes that may have been made that take away some of the free and easy pleasures of an earlier, more innocent era.

Many areas also have more regulations. In addition, giardia infection has become widely recognized as a problem in wilderness waters. A decade or two ago, visitors might have relaxed with clear consciences around a roaring campfire next to a high mountain lake, perhaps sipping clear, cold water dipped from the lake. Now they might get a ticket from a wilderness ranger for camping too close to the lake, or for having a campfire, and catch diarrhea from the water. If this shift of image is common, it might help explain recent trends. Conceivably, some visitors might even be choosing to restrain their own use of wilderness as their contribution to wilderness protection.

QUESTIONABLE USE DATA

The more we have worked with agency wilderness use estimates, the more we have become aware of their serious shortcomings. The leveling off and declines in reported use are so widespread that there seems little doubt about the direction of change, but its magnitude, especially for individual areas, is questionable. For example, the official wilderness annual use report from the Forest Service national office shows peak use of the Boundary Waters Canoe Area Wilderness in 1982, with 1986 use only 74 percent of the peak (table 4). But, other figures issued by the Superior National Forest, which manages the area, show 1981 as the peak and 1986 use as 99.6 percent of peak use. Two sets of use figures for Grand Canyon National Park show similar divergence.

Wild swings in reported use of individual areas from year to year are common, particularly for national forest wildernesses. Many of these fluctuations are so large that it seems impossible that they represent real changes; estimation errors must be large and common. For example, the Galiuro Wilderness in Arizona reported 28 times as much use in 1976 as in 1975. These kinds of inconsistencies hamper research, but more important, they devastate professional management. Should managers relax because use of a particular wilderness is plummeting or gear

up for a crisis because use is exploding? For some areas, it appears impossible to decide as the answer switches from year to year. For example, the Eagle Cap Wilderness in Oregon reports use shifts that remind one of a yo-yo. From 1979 through 1986, use repeatedly dropped by half or more one year and doubled or tripled the following year. These examples are not isolated instances. There are many other puzzling examples from most parts of the country.

Improvement in the accuracy of use estimates seems essential. This will require commitment to develop reliable technology, transfer it to managers, and apply it carefully (Watson and others 1987).

REASONS FOR SLOWING GROWTH UNCLEAR

Trends in wilderness use present a complex pattern, but the inescapable conclusion is that onsite recreational use is flattening or declining. The reasons underlying this trend are not clear, but it seems likely that a combination of changes in the sociodemographic structure of society, particularly an aging population, and changes in social preferences and tastes are important parts of the explanation.

This slowing trend should not be seen as inconsistent with the general trends forecast for other outdoor recreation activities. Clawson (1985), for example, speculates that the rate of increase in outdoor recreation activity for the next 25 years will be more on the order of 4 percent annually, as opposed to the 10 percent rates found in the past 25 years. Jungst and Countryman (1982) project wilderness use to 2020 to grow at a rate between 2 and 7 percent, depending on the prediction model used and the assumptions about the independent variables used in the models.

Wilderness use will undoubtedtly remain an important form of recreation in the national forests and national parks. Despite the apparent decline in national park backcountry use, it remains about 7 percent of total national park overnight use. As noted earlier, wilderness use in the national forests has increased its share of the total recreation pie, now accounting for more than 5 percent.

IMPLICATIONS OF SLOWING GROWTH

A Chance for Managers to Catch Up

If the changes in wilderness use continue, they carry with them some important implications for the management of such areas. Stable or lower use might represent an opportunity for wilderness managers to 'catch up' with problems that a few years ago looked overwhelming. Not only are growth rates slowing, but trends in the character of use and users also hold promise for reducing impact levels. This includes a shift toward activities having lower impacts (for example, a shift from horse use to hiking), smaller groups, greater visitor knowledge of how to minimize impact, and a reduction in littering (Lucas 1985).

The Wilderness Allocation Debate

For years many people have cited rapidly growing recreational use as a reason to designate more wilderness. This now appears to be an uncertain foundation. Wilderness has many purposes besides recreation; lack of growth in recreational use suggests that other important functions such as ecosystem representation, scientific activities, and vicarious enjoyment will need to become more central to debates over whether certain lands should be wilderness.

Reconsider Management Policies

Many wilderness management policies were adopted when use was growing rapidly and in anticipation of massive future growth. Use rationing, assigned campsites, length of stay limits, camping setbacks from water, bans on taking in cans or bottles, and other policies often adopted to head off serious problems before use got out of hand may now merit reconsideration in light of reduced use and possible future declines. Perhaps visitor freedom can be increased and the quality of visitors' experiences thus enhanced.

Quality deserves special emphasis. Although available measures suggest no decline in satisfaction generally, there are many opportunities to raise satisfaction with specific aspects of wilderness visitors' experiences. Stable use suggests a sophisticated, demanding market that will challenge the skill of wilderness managers.

Managers might even consider some promotion of appropriate wilderness use. This would be an about-face from recent policies that have sought to avoid stimulating use, but if managers believe

wilderness provides important benefits to visitors and that use of some areas has declined more than necessary, it may be worth advertising opportunities for appropriate wilderness experiences.

Increase Understanding of Trends

Formulation of long-term wilderness policies needs to be based on a better understanding of trends in recreational use and of factors associated with changes in use. The past confidence that use was increasing and would continue to do so should be abandoned. The future seems highly uncertain. The downtrends are recent and short term in most places. Use could rebound or sink lower (like the stock market). Better use estimates seem essential to track trends, and increased knowledge of the reasons for ups or downs would help develop policies that fit the situation. For example, changing age structure has very different policy implications than dissatisfaction with trail maintenance or restrictive regulations.

Slow growth or even declines in wilderness use do not imply a decline in the importance of wilderness. Wilderness is not intended to be primarily a recreation area. The visitor numbers game can be a dangerous trap. Many people have used past growing use as an easy argument for more wilderness or larger budgets for management and research, but slackening use can help solve crowding and impact problems and increase the effectiveness of improved management. Good results from management are less likely to be buried by ever-increasing use and proliferation of problems. This should provide additional motivation to increase our efforts to manage and protect the wilderness resource for all of its values.

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