US Forest Service Wilderness visitation after 50 years

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The National Wilderness Preservation System (NWPS) in the United States was created by the Wilderness Act of 1964 (PL 88-577). That act was signed into Law by President Johnson in September, 1964. The US Forest Service is one of four federal agencies to manage lands and waters that are part of the NWPS. Today, across all four agencies, there are 757 distinct land areas totalling over 44 million hectares in the NWPS. For the Forest Service the initial set of Wilderness areas covered about 3.6 million hectare in over 50 Wilderness areas. Since 1964, over 10 million hectares in more than 400 additional Wilderness areas have been added to the agency's holdings.

Recreational activity in the US has grown and changed dramatically since 1964. Between 1982 and 2009, participants in the activities that often take place in Wilderness settings increased substantially. For example, the number of day hiking and backpacking enthusiasts more than doubled, while primitive camping participants nearly doubled. Horseback riding increased by almost just under forty percent (Cordell, 2012). Wilderness areas managed by the Forest Service are estimated to receive a little more than 8 million visits annually.

In this paper, we examine characteristics of visitation to Wilderness managed by the US Forest Service. We present an overview of the characteristics of current wilderness visits. Some of the key aspects of visitation we examine are trip purpose, demographics, visit duration, travel patterns, and satisfaction. We also compare visit characteristics across several time or space dimensions for Wilderness areas. The first is comparing visitation data obtained from forests surveyed through the National Visitor Use Monitoring (NVUM) program in 2005-2008 with data from the same forests in 2010-2013. Such a comparison may give an indication of how Wilderness visitation is changing, and what sorts of visitation patterns managers can expect to see in the future.

We anticipate that there may be qualitative differences among Wilderness areas according to when they were designated, the size of the Wilderness area, or its location relative to population centres. That is, the Wildernesses designated in the first few years of the system could be of a different character than those designated later on. If so, there could also be differences in the types of users or visit patterns for these areas. Larger areas may provide greater opportunities for longer visits or more solitude than smaller areas, which may appeal to different demographic groups. Wilderness areas that are closer to population centres may be more attractive destinations for people with limited recreation time than those that are more distant, and thus may have shorter average visit durations.

Data for visit characteristics comes from the NVUM program. Wilderness sites are one of the primary sampling strata for that program. Part of the data in the sampling framework geolocates the interview site, and identifies the Wilderness with which the interview site is associated. In turn, we are able to append information about Wilderness area size and year of designation, or compute proximity to population centres.

Recent data shows a noticeable increase in Wilderness visitation. For 2005-2009, the FS estimated 6.5 million visits to FS Wilderness. For the 2009-2013 period, the estimate rose to 8.1 million visits. Changes in visitation volume were not equal for all forests. Five forests showed increases of over 150,000 visits. All are located near major metropolitan areas that had sizeable population

growth from 2000 to 2010, and have the majority of Wilderness visits coming from the area within about 50 miles of the forest. Two forests had declines of over 100,000 visits. Both are located at some distance from metropolitan areas, and have very few Wilderness users from the local area.

Over the last few years, most forests showed a greater proportion of visits coming from people living nearby, a greater proportion in shorter visit duration categories, and a decline in the proportion who visit Forest Service Wilderness as a side trip (Table 1). As well, there has been an increase in Wilderness visits as the single destination for a day trip from home. Our preliminary results indicate that these sorts of changes are not consistent across all of the categories of Wilderness that we examined.

Longer-term changes corroborate the finding the character of Wilderness visits has changed dramatically. In the 1960's 74% of Wilderness visits were multiple-day visits; Cole (1996) reported only about 25% were multiple-day visits. We estimate that now a little less than ten percent of Wilderness visits last more than 36 hours.

The paper highlights the differences across categories of Wilderness and the types of changes seen in recent years in each type. As well, we discuss some possible causes for the observed changes as well as some of the implications for managers.

	… percent of visits …..	
Item	2005-2008	2010-2013
Travel Distance		
0-25 Miles	24	27
25-50 miles	15	19
50-100 miles	14	14
100-200miles	11	11
200- 500 miles	13	11
Over 500 miles	22	18
Visit Duration		
< 3 hours	41	43
3 – 6 hours	29	32
6 – 12 hours	11	10
12- 36 hours	6	7
36-72 hours	6	4
Over 72 hours	6	4
Wilderness visit is side trip during a trip to some other destination	18	14
Wilderness visit occurred on a day trip away from home	46	52
Wilderness was the only place visited on the forest	57	61

Table 1. Comparing Wilderness visits over time.

References

Cole, D.N. (1996). Wilderness recreation use trends, 1965 through 1994. INT-RP-488. Ogden, UT: U.S. Department of Agriculture Forest Service, Intermountain Research Station. 10 p.

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.