

IMPACT OF USER FEES ON DAY USE

ATTENDANCE AT NEW HAMPSHIRE

STATE PARKS

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This paper examines state park day use attendance data over a ten year period, 1980 - 1990, for variations in attendance effected by increases in user fees. A non-controllable variable the weather has been taken into account. The results of this paper suggest that user fees can be successfully collected at specific locations and provide positive income without significantly decreasing attendance.

Introduction

The changing economy and public opposition to new or additional taxes is forcing many public recreational agencies to investigate the feasibility and impact of user fees for public property. New Hampshire State Parks have successfully collected user fees at many locations and have historically recovered up to one hundred percent and more of their operating expense. The purpose of this study is to examine existing state park data for variations in attendance relative to increased user fees at New Hampshire state beaches, day-use areas, and historic sites over a ten year period.

Study Areas

For the purpose of the study 27 state parks were categorized into three types; beaches, day-use areas, and historic sites. User fees are charged at all of the parks chosen in each category. The three categories are described as follows:

Beaches

New Hampshire state beaches made up the largest percentage of the properties in this study. There are 16 swimming beaches in the state park system. Two of these are large salt water beaches and are extremely popular among day-trippers and residential tourists during summer months. The other 14 in-land beaches are smaller and located on various N.H. lakes and ponds.

Day-Use

Six day-use parks were studied. These areas are typically mountain areas and offer such recreational opportunities as hiking, picnicking, and sight-seeing.

Historic Sites

New Hampshire state historic sites made up the smallest percentage of the parks studied. Although there are only five state historic sites they are important cultural assets to the state park system. These sites include: the Robert Frost Farm, the John Weeks Estate, the Daniel Webster Birthplace, the Franklin Pierce Homestead, and the Wentworth-Coolidge Mansion.

Findings

Beaches

During the study period of 1980 to 1990 there were four fee increases at New Hampshire state beaches (table 1). User fees gradually increased from \$.75 per person in 1980 to \$2.00 in 1984. The \$2.00 user fee remained constant from 1984 to 1989. During 1990 the fee was increased by \$.50 to \$2.50 per person on weekends and holidays.

Table 1. Beach attendance and user fees, 1980-1990.

Year	Attendance	Fee \$
1980	1,011,200	.75
1981	865,600	1.00
1982	804,700	1.50
1983	1,035,100	1.50
1984	870,600	2.00
1985	986,000	2.00
1986	897,000	2.00
1987	754,300	2.00
1988	866,800	2.00
1989	770,600	2.00
1990	736,500	2.00

Overall, beach attendance shows a general decline between 1984 and 1990 even though user fees remain constant from 1984 through 1989 (Fig. 1). The fluctuation in attendance during the study period suggests that fee increases are not the sole variable impacting beach attendance as there are increases and decreases in attendance that do not coincide with fee increases. Other variables considered were precipitation (Fig. 2) and temperature.

1980 had the second highest attendance during the study period with the lowest user fee, moderate rain and high temperatures. Though there were considerable fee increases, 33% in 1981 and 50% in 1982, the weather was less than desirable with 11.6" of rain and cooler temperatures in 1981 and the same for 1982 with more than 13.2" of rain. Overall beach attendance declined from 1980 to 1982. 1983 was the driest year of the study period with 6.76 inches of rain along with being one of the warmest and had the highest attendance of any year from 1980 to 1990. User fees increased from \$1.50 to \$2.00 in 1984 and remained constant through 1989, however park attendance did not. 1984 saw attendance slightly higher than 1981 with a similar temperature and 3" less rain. A 13% increase in attendance was noted in 1985 over 1984 with very similar weather conditions.

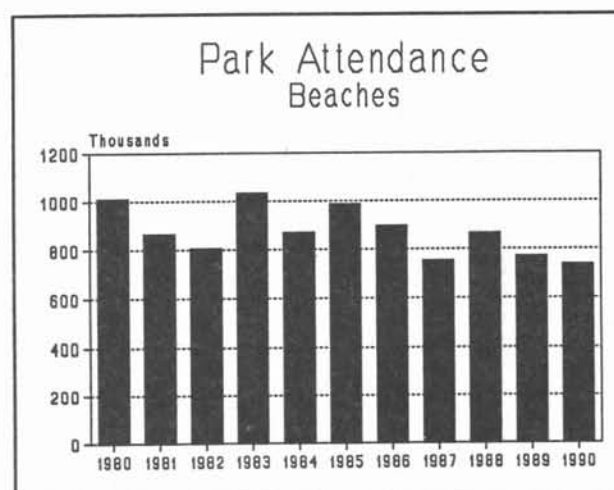


Figure 1. Annual park attendance at beaches.

Precipitation in the years 1986 through 1990 was quite high ranging from 11.42" to 13.44". Temperature and precipitation appeared to be the deciding factors for beach patrons.

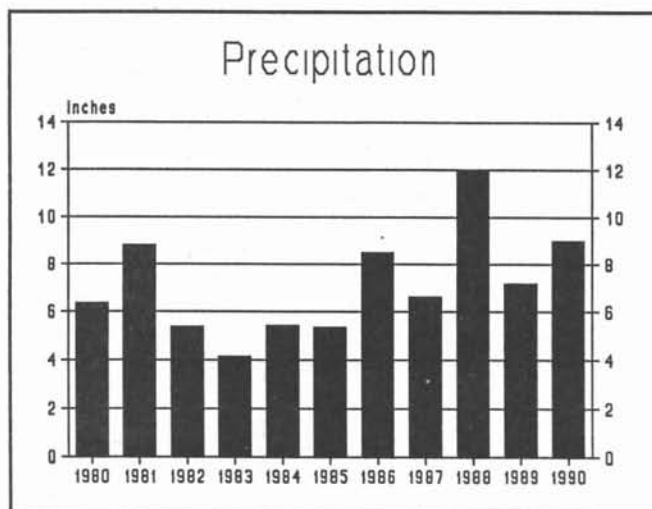


Figure 2. Average annual precipitation.

Day Use

Day use areas experienced three fee increases during the study period of 1980 to 1990. During 1980 and 1981 the user fee was fifty cents per person. The fees was increased to \$1.00 per person in 1982 and remained constant until 1988 when it was increased 100% to \$2.00 and unified the fee structure through out the park system. The last increase occurred in 1990 when fees were raised to \$2.50 per person on weekends (Table 2).

Table 2. Day-Use Attendance and User Fees, 1980-1990.

Year	Attendance	Fee \$
1980	143,700	.50
1981	137,600	.50
1982	130,700	1.00
1983	132,600	1.00
1984	139,000	1.00
1985	131,500	1.00
1986	133,500	1.00
1987	137,900	1.00
1988	156,800	1.00
1989	175,600	2.00
1990	127,700	2.00

Overall, day-use attendance has remained relatively constant during the study period (Figure 3). In 1982 the fee increase appears to have had an impact as attendance fell more than 5% from 1981 with similar rain fall (Figure 4) but a cooler temperature. Attendance at day use areas recovered during 1983 through 1985 while rain fall was down, temperatures were up and the fee was constant. In 1986 total precipitation for the summer increased sharply and remained up through 1990. Attendance increased constantly from 1986 to 1989 with a substantial increase, 12.1%, coinciding with a doubling of the fee to \$2.00 in 1989. 1990 experienced a 37.8% decrease in attendance while the only significant variable change was the 50 cent fee increase on weekends.

Historic Sites

During 1980 and 1981 operating seasons user fees at state historic sites were fifty cents per person. Fees were increased to \$1.00 per person in 1982 and \$2.00 in 1984. From 1984 to 1990 the fee remained constant (Table 3).

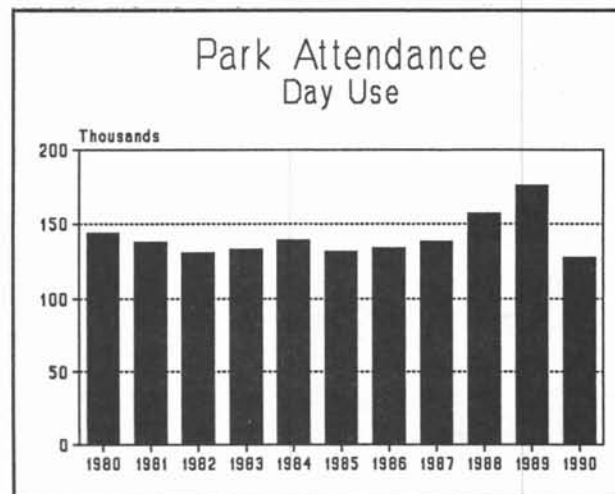


Figure 3. Annual park attendance at day use areas.

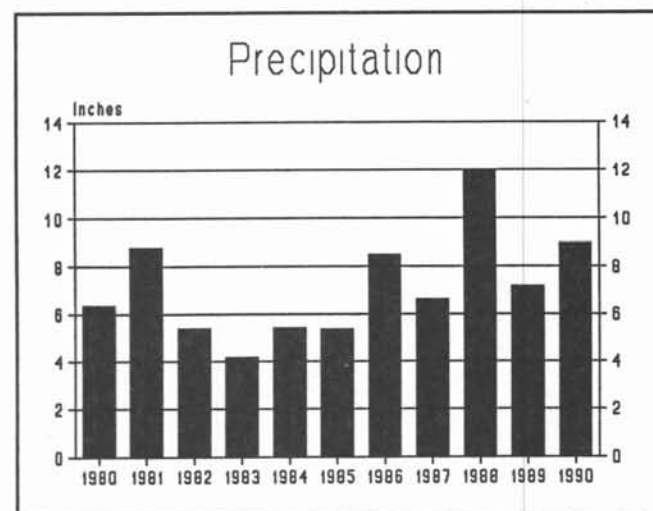


Figure 4. Average annual precipitation.

Table 3. Historic site attendance and user fees, 1980-1990.

Year	Attendance	Fee \$
1980	10,392	.50
1981	4,816	.50
1982	5,752	1.00
1983	8,600	1.00
1984	9,100	2.00
1985	12,300	2.00
1986	10,600	2.00
1987	10,500	2.00
1988	13,600	2.00
1989	10,600	2.00
1990	11,200	2.00

During the study period attendance at NH state historic sites demonstrated a steady increase in attendance even though there were two fee increases (Fig. 5). When compared to the weather it becomes apparent that historic sites may do better when outside activities are limited due to rain (Fig. 6) as years of high attendance correlate to years of higher rainfall.

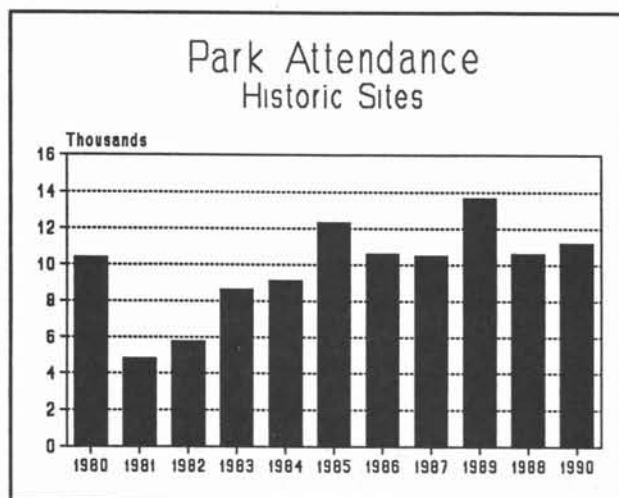


Figure 5. Annual attendance at historic sites.

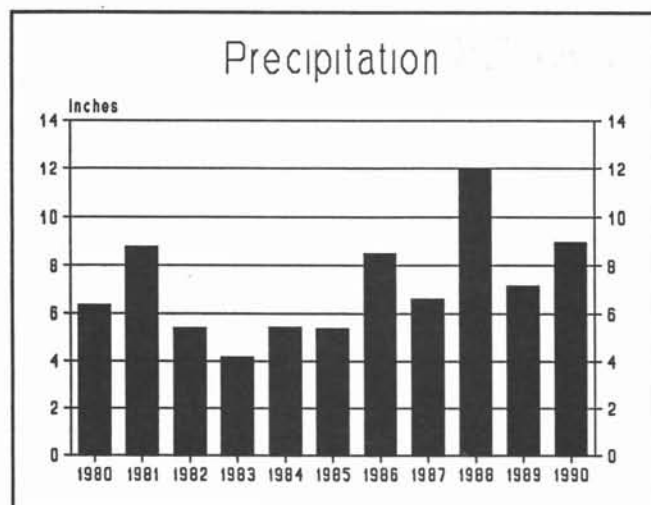


Figure 6. Average annual precipitation.

Overall Attendance

Overall there was a decline in park attendance during the study period of 1980-1990 but 87% of all patrons visit beaches which appear to be weather dependent more than price dependent. Historic sites appear to be unaffected by user fees and unlike beaches do well when the weather is inclement. Day use areas appear immune to the effects of either weather or increased user fees at these levels.

Summary

The results of this study suggest that park visitation is influenced to a great degree by the weather and to a much lesser degree if at all by user fees of up to \$2.00 per person. It is important to mention that there have not been any written complaints received relative to user fees during periods of increase. The results of this study further suggest that user fees can be implemented over a period of time and used to generate income to offset operating expenses without significantly impacting visitation levels.