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## United States Department of the Interior

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N22-SER-PP

JUN 29 1979

## Memorandum

To: Superintendent, Cape Hatteras

From: Research Sociologist, Natural Science and Research,  
Southeast Region

Subject: Report on Visitor Expenditures

Pricing and cost estimates of visitors to Cape Hatteras National Seashore and the information about those expenditures that are reported in this brief summary were the result of the survey which was done and reflect on page 3, Items 7 and 8. There are a number of qualifications that should be used in interpreting this information.

The expenditures stated in this report are estimates from the visitor about what they spent and how they spent those dollars. These are not actual expenditures that could be obtained through a more inclusive economic study. It must be remembered, however, that the visitor budgets his resources and can fairly accurately recall what they spend and how they spent their dollars.

This report furthermore does not contain any data on local residents. The beach users contacted who were local residents were included in a local resident phone book sample.

The sample of visitors was stratified according to whether the beach users were employing an ORV (off-road vehicle) at the time of the contact or was a pedestrian with the ORV operators sampled at twice the rate of the latter to insure sufficient cases for statistical analysis. Contacts were made with beach users at randomly selected times on randomly selected days at randomly selected portions of the National Seashore. Stratification of the sample insured adequate representation for week days, weekends, mornings, and afternoons (no evening sampling was conducted). Locations were further stratified according to ramps, fishing piers, and life-guarded beaches.

Okracoke Island was excluded from the sampling because of time constraints and on the assumption that there were no major differences between visitors to that part of the Seashore and the remainder. However, strictly speaking, our findings and these estimates are not generalizable to Okracoke Island. Since the visitor response rate was 80.5 percent, non-response checks were made because the reliability and validity associated with the response rate precludes any extreme possibility of bias.

The following estimates and summary of the cost expenditure items are provided with a minimum of statistical information, largely descriptive statistics, so that you may interpret very clearly the range of expenditures, the amount of expenditures, and some estimates on where and how dollars are being spent for goods and services. The following information is differentiated in two columns, ORV use and pedestrian use. The data indicates the average expenditure spent per person per day for both ORV and pedestrian use, a median value of expenditure for each person per day, the minimum and maximum, the number of "0" cases, and a breakdown in the percentage of individuals spending less than the values indicated.

	<u>ORV</u>	<u>PEDESTRIAN</u>
Number of valid case	241	204
mean/person/day	\$16.26	\$16.73
mode "	15.00	7.00
median "	12.79	11.88
minimum "	1.50	0.00
maximum "	78.17	257.50
number of 0 cases	0	2
approx. 50% spent less than	12.79	11.88
approx. 75% " " "	20.25	19.83
approx. 90% " " "	34.50	32.44
approx. 95% " " "	44.00	42.17
approx. 99% " " "	60.00	67.00

Although the two extreme cases in the pedestrian sample of \$132.50 and \$257.50 per person per day seem to have an impact on the kurtosis measure, the basic distributions are very similar, and there is no difference -- statistical or practical -- between the expenditures per person per day of the visitors who were ORV users and those who were pedestrians.

In general, other descriptive statistics listed tend to indicate that the distribution was skewed in a position manner indicating cases are clustered more to the left of the mean with most of the extreme values to the right. The kurtosis of both distributions were positive, indicating that the distribution is more peaked, narrow that is, than would be true for a normal distribution.

The differences in expenditures between ORV visitors and pedestrians showed no statistical difference in the amount of money that they spend on goods and services. Two, those who personally owned ORV's, those who did not, and those who did not but planned to purchase one differed in no way in their expenditures for goods and services. Third, there was no variation in expenditures for ORV users according to the extent to which they use their vehicles for pleasure driving on beaches. Four, there was no difference in total expenditures of ORV fishermen encountered in the summer and those sampled in the fall.

The expenditure data that was determined through this study indicates that the estimates of the visitor are far below that value of \$65.00 which has been previously reported. A more detailed breakdown of costs will be available in a month or two indicating precise expenditures for services and a precise differential analysis in order to better understand differences between ORV and pedestrian users.

