

# **Factors Influencing Willingness To Pay For Use Of Marine Recreational Facilities: Sand Beach**

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FACTORS INFLUENCING WILLINGNESS TO PAY FOR USE  
OF MARINE RECREATIONAL FACILITIES: SAND BEACH

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## ABSTRACT

Willingness to pay for the use of a beach and its facilities is seen as related to people's life situations and their psycho-social characteristics. Paramount among them are expectations of getting something for one's money and inclinations to pay for what one likes; both of these are influenced by rights to beach use held by taxpayers and residents in the municipality operating the beach. Most frequently, however, people were willing to pay for beach maintenance and improvement and for services; they liked the natural setting of the beach, its lack of commercialization, and the spaciousness of the location. Also seen as having bearing on people's willingness to pay is the type of household of which they are a member--families are most willing to pay, but people living alone are most willing to pay highest amounts--and their feelings while at the beach--people who relax are willing to pay highest amounts. Both the act of paying and the amount people are willing to pay are seen as socially oriented.

Data for the study were collected in the summers of 1972 and 1974 at a southern Rhode Island beach which provides a natural non-commercialized environmental atmosphere and is, characteristically, not crowded. On-site interviews were conducted by the principal investigator and a paid interviewer.

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INTRODUCTION

This report includes two sets of data, each of which is pertinent to understanding factors influencing beach users' willingness to pay for use of a beach and its related facilities. One set of data was collected during July, 1972, while the other was collected on a holiday, the first weekend of September, 1974. In each case, information was secured through on-site interviews. The beach studied is located in Southern Rhode Island and provides a non-commercial setting and natural environmental atmosphere; these qualities are among the major appeals it has for local and visiting beach users. The beach is identified as Sand Beach.<sup>1</sup>

The two sets of data reflect the use of differing approaches to the study of willingness to pay for recreation facilities and services. In both however, information about the amount of money an informant was willing to pay was secured with use of the following question:

If one day (the use of this beach for one day) at this beach--for you (and the people who are with you now)--were being auctioned, how much would you be willing to bid for it?

However, the two sets of data examine different relationships. The 1974 data were used to compare the per capita amounts which people were willing to bid for use of the beach and its facilities with the per capita amounts they would be willing to pay under other circumstances; in addition, direct inquiry was made with respect to people's concerns about paying or not paying for the use of the beach and its facilities. The 1972 data were used to relate informants' orientations to bidding for beach use to their household type and social status, to tension levels while at work, to the direction of change in tension level accompanying transition from work to beach activity, to the informants' occupations, and to the values of beach experience expressed by the informants. In addition, for those informants giving a precise monetary bid, analysis was made of the relationships between per capita amounts which were computed for each bid and the social variables indicated above.

The 1974 data provide indications of consistency in the amount of money people were willing to pay at Sand Beach under a variety of conditions. In addition, they show a configuration of characteristics in the informants' attitudes about paying for the use of the beach and its

parking lot which structure their willingness to pay. In light of the small number of cases involved, no attempt was made to relate this configuration of attitudes to social variables. The 1972 data provide no statistically strong evidence that willingness to pay is related to the categories of the social variables examined.

In the following pages, the 1974 data are presented before that collected in 1972.

#### SECTION I - 1974 DATA

##### The Act of Paying

The evidence presented below is interpreted to indicate that the act of paying for use of recreational facilities is a learned performance and becomes established as an act to which people tend to conform with occasional exceptions. A variety of attitudes which form a structural configuration, or "set," sustain the act of paying; the attitudes are influenced by the life situations of users of recreational facilities.

Consistency in performance with respect to paying, under a variety of circumstances, is suggested by the data in Tables I and II.

Informants were asked how much they would be willing to pay for the use of the beach, for themselves and the people with them, under each of four circumstances: 1) if bidding competitively; 2) if they knew the money were used for beach upkeep and improvement; 3) if they were responsible for the beach; and 4) if the other people in their group weren't influencing their decisions on paying. (See Items IV, V-A, VII, and VIII-A, Questionnaire; Appendix C.) The responses were converted into per capita amounts for each group or person on the beach alone, and the distributions of them are shown in Table I. The differences among the four distributions are not greater than those which could be explained on the basis of chance; neither are the differences between each distribution and the total for all distributions. Hence, indications of willingness to pay under the four circumstances show a significant degree of uniformity.

Further indication of this uniformity is shown in Table II. This table shows the mean per capita amount of payment related to each circumstance. These means are not significantly different from each other, despite their variation. The lowest mean (\$0.98) is for competitive bidding and the highest (\$2.98) is for circumstances in

Table 1. Per Capita Amounts Informants Were Willing to Pay in Four Circumstances for One Day's Use of Sand Beach; 40 Sand Beach Users, September, 1974; Rhode Island

Per Capita amounts	Circumstances								Total	
	Competitive bid for day's use		If knew money for up-keep		If responsible for the beach		If bid not influenced			
	No.	%	No.	%	No.	%	No.	%		
	A		B		C		D		E	
\$0.00 - 0.99	14	35.0	14	35.0	12	30.0	14	35.0	54	33.7
1.00 - 1.99	8	20.0	16	40.0	16	40.0	18	45.0	58	36.3
2.00 - 2.99	5	12.5	5	12.5	5	12.5	4	10.0	19	11.9
3.00 - 3.99	-	-	-	-	-	-	-	-	-	-
4.00 - 4.99	1	2.5	-	-	-	-	-	-	1	0.6
5.00 - 5.99	-	-	-	-	-	-	-	-	-	-
6.00 or more	-	-	2	5.0	2	5.0	-	-	4	2.5
Wouldn't bid	11	27.5	2	5.0	4	10.0	4*	10.0	19	11.9
Couldn't bid	1	2.5	1	2.5	1	2.5	-	-	5	3.1
Total	40	100.0	40	100.0	40	100.0	40	100.0	160	100.0

\* Came to beach alone. In the "total" column, these cases are distributed between "couldn't" and "wouldn't" bid categories.

None of the distributions are significantly different from each other or from the distribution of totals.

Distributions	$\chi^2$	df	P
A-B	4.20	4	<0.50
A-C	3.02	4	<0.70
A-D	4.48	4	<0.50
A-E	6.63	4	<0.20
B-C	0.33	4	<0.99
B-D	1.19	4	<0.90
B-E	0.80	4	<0.95
C-D	1.26	4	<0.90
C-E	0.73	4	<0.95
D-E	4.82	4	<0.50

\*\*\*\*\*

Table II. Mean Per Capita Payment in Four Circumstances for One Day's Use of Sand Beach; Differences Between Means;  $x/\sigma$ , and P; Sand Beach Users, September, 1974; Rhode Island

Differences; $x/\sigma$ ; P	Circumstances			
	Competitive bid for day's use	If knew money for up-keep	If respons- ible for the beach	If bid not influenced
Mean:	\$0.975*	\$2.979*x	\$1.395*	\$1.018*
N :	39**	39**	39**	35***
	(A)	(B)	(C)	(D)
A. Bid				
Difference	-	2.004	0.420	0.043
$x/\sigma$	-	1.473	1.117	0.192
P	-	0.1416	0.2670	0.8492
B. Responsibility	-	-	1.584	1.961
$x/\sigma$	-	-	1.444	1.451
P	-	-	0.1498	0.1470
C. Up-keep	-	-	-	0.377
$x/\sigma$	-	-	-	1.112
P	-	-	-	0.267
D. No influence	-	-	-	-
$x/\sigma$	-	-	-	-
P	-	-	-	-
Standard Deviation:	1.221	8.408	2.004	0.645

\*The distributions from which means are computed include the \$0.00 bids of people who indicated that they would not bid or pay.

\*\*N excludes one informant who indicated that he could not bid or pay because of low retirement income.

\*\*\*Excludes the informant identified in \*\* above and four alone at the beach.

xThis mean is influenced by one \$50.00 per capita amount; if this extreme is adjusted to equal the next highest per capita amount (\$20.00) the mean for the adjusted distribution is \$2.209; this is still the largest mean per capita amount.

which people knew the revenue would be used for beach upkeep and improvement. This is the circumstance that also had the greatest variation in per capita amounts (standard deviation, 8.408). The least variation per capita amounts exists for circumstances in which informants regarded their responses as not influenced by others in their groups.

Despite the lack of significant differences as far as per capita amounts of payment are concerned, the evidence shows that the total amounts of payment elicited by competitive bidding are significantly different from those elicited under the other circumstances relevant to payment. The data are shown in Table III. The amounts elicited in each circumstance are classified as being less than, equal to, or more than the \$2.00 fee charged daily on weekends for use of the beach parking area. One half of the bids were for amounts greater than the \$2.00 parking fee, while 42.5% were less than the fee: only 5.0% were equal to the fee. In contrast, in the other three circumstances, between 40.0% and 45.0% of the amounts were more than the parking fee, while between 20.0% and 25.5% were less than that amount. About 30.0% were equal to the parking fee. The distributions of amounts in these three circumstances are not significantly different from each other.

The data indicate that people's expressions of willingness to pay for the use of a beach and its facilities have a similar pattern under circumstances in which aspects of personal involvement are influential, and a different pattern under circumstances of competitive bidding for use of the beach. Despite this variation, all circumstances indicate that between 40.0% and 50.0% of the informants showed willingness to pay more than the \$2.00 parking fee currently charged. For the non-bidding circumstances, between 25.0% and 30.0% were willing to pay the equivalent of the parking fee; at auction, only 5.0% bid an amount equal to the parking fee; under the other circumstances, between 20.0% and 25.0% of the informants indicated willingness to pay less than \$2.00.

The data in the first three tables indicate that despite varying circumstances and absolute amounts of money which people were willing to pay for a day's use of Sand Beach, the per capita amounts were not significantly different from each other in the varying circumstances.

#### The Amounts of Payment

Even though the differences among per capita indications of willingness to pay are not statistically significant,

Table III. Total Amounts People Were Willing to Pay for Their Group's Use of Sand Beach for One Day; 40 Sand Beach Users, September, 1974; Rhode Island

Amounts	Circumstances										Total	
	Competitive bid for day's use		If responsible for the beach		If knew money for up-keep		If bid not influenced					
	No.	%	No.	%	No.	%	No.	%	No.	%		
	(A)		(B)		(C)		(D)		(E)			
Couldn't pay	1	2.5	1	2.5	1	2.5	4	10.0	7	4.4		
Less than parking fee	17	42.5	10	25.0	9	22.5	8	20.0	44	27.5		
\$2.00; equals parking fee	2	5.0	12	30.0	12	30.0	11	27.5	37	23.1		
More than parking fee	<u>20</u>	<u>50.0</u>	<u>17</u>	<u>42.5</u>	<u>18</u>	<u>45.0</u>	<u>17</u>	<u>42.5</u>	<u>72</u>	<u>45.0</u>		
Total	40	100.0	40	100.0	40	100.0	40	100.0	160	100.0		

Distributions	$\chi^2$	df	P
A-B	9.2088	3	<0.05
A-C	9.3289	3	<0.05
A-D	11.5140	3	<0.05
A-E	77.2522	3	<0.001
B-C	0.1075	3	<0.99
B-D	2.0656	3	<0.70
B-E	69.3180	3	<0.001
C-D	1.9308	3	<0.70
C-E	72.7680	3	<0.001
D-E	75.9233	3	<0.001

they do, however, reflect variations in orientation to paying for the use of recreational facilities. There were 128 people in the groups the 40 informants represented. When each of the mean per capita payments (Table II) is multiplied by 128 and the product is compared with the total amount of payment offered on a group basis, the following relationships are discernible:

Circumstances	Number of people	Mean per capita payment	Total projected payment	
			Per capita basis	Group basis
A. Auction	128	0.975	\$124.80	\$93.00
B. Upkeep	128	2.979 2.209*	381.31 282.75*	233.75 173.75*
C. Responsibility	128	1.395	178.56	123.25
D. No influence	128	1.018	130.30	92.25

\*Adjusted: See Table II.

Although the projected total payment on a per capita basis exceeds the projected payment on a group basis, the amounts involved for each basis indicate that willingness to pay is most strongly associated with knowledge that the money paid is used for the upkeep and improvement of the beach. A feeling of responsibility for the beach is second in strength of association to willingness to pay. Least strongly associated are the chance-taking orientation of competitive bidding and the freedom from group influence one feels he experiences.

#### Life Situations

With respect to payment for the use of a beach and its facilities, informants were asked, on the one hand, "What difference does it make to you whether you pay or not?" On the other hand, they were asked, "On the whole, how do you feel about paying for the use of a beach?" (Questionnaire, Items II-A and II-D; Appendix C). Responses to these questions tend to reinforce each other in identifying aspects of people's life situations which influence their willingness to pay for the use of recreational facilities. The data are reported in Table IV.

Table IV. Feelings About Paying for Use of Beach and/or Facilities;  
40 Sand Beach Users, September, 1974; Rhode Island

Questions Asked of Beach Users and Responses							
What difference would it make, if or if not pay				Total		Feelings about paying for use of beach	
Response	No.	%		No.	%	No.	Response
Feel obligated to or expect to pay	3	7.5		6	7.5	3	7.5
Expect something for my money	11	27.5		27	33.8	16	40.0
Taxpayers' right	2	5.0		12	15.0	10	25.0
Will pay for what I like	8	20.0		11	13.8	3	7.5
Affect frequency of coming	5	12.5		8	10.0	3	7.5
Money only	2	5.0		4	5.0	2	5.0
No difference	7	17.5		10	12.5	3	7.5
Should not have to pay	2	5.0		2	2.4	—	0.0
<u>Total</u>	40	100.0		80	100.0	40	100.0

\*\*\*

Despite variations in relative emphases among the responses to each question, in combination they show a consistent pattern of factors influencing willingness to pay. There is a predominant feeling among informants that they expect something for their money and that the fees they might pay should be used for services and for maintenance of the beach (33.8%). The second area of influence is that of the rights to beach use as they relate to residents who pay no local taxes (15.0%). Third is the willingness of people to pay for what they like (13.8%). In combination, these three influences account for 62.6% of the responses. Fourth is the indication that paying or not makes no difference (12.5%). The remaining responses show the following influences: frequency of coming and crowding the beach (10.0%); expectation of paying (7.5%); money and ability to pay (5.0%); and a feeling that one should not have to pay (2.4%).

Further, the 26 informants who had paid for the use of the beach parking lot were asked: "What difference would it make to you if you didn't have to pay for the use of this beach?" The 14 informants who had not paid because they were municipality taxpayers and/or residents or had walked or cycled to the beach were asked: "What difference would it make to you if you had to pay for the use of this beach?" (Questionnaire: Items II-B and II-C; Appendix C). The responses to these two questions tend, within limits, to identify similar factors related to people's beach use; a greater variety is associated with a change to not paying than with a change to paying. The data are reported in Table V.

In combination, these responses show a pattern, just as each set of responses shows a pattern. In the combination, frequency of coming to the beach is mentioned most frequently (27.5%). Continuing to come, or not, is mentioned in 17.5% of the responses; 17.5% of the responses also indicate that having to pay would make no difference. Saving money was a related matter expressed in 12.5% of the responses, while 10.0% expressed concern over psychological conflict about paying. Concern about future crowding of the beach was reflected in 7.5% of the responses and another 7.5% indicated that people expected to pay or objected to paying.

With respect to the difference in patterns of response to the two questions, the pattern for responses to having to pay was the more simple of the two. This pattern embodies indications of little or no change, objection to paying, coming to the beach less frequently, and refusal to come to the beach. The pattern for not having to pay holds

Table V. Responses to the Idea of Paying or Not Paying for Use of Beach and/or Facilities; Sand Beach Users Who Paid and Those Who Did Not Pay, September, 1974; Rhode Island

Questions & Beach Users Classified by Payment or Non-payment

Responses	Difference to you if you didn't have to pay <sup>1</sup>		Total		Difference to you if you had to pay <sup>2</sup>		
	No.	%	No.	%	No.	%	
We would go anyway	5	19.2	7	17.5	2	14.3	Would not go
Save money	5	19.2	5	12.5	-	-	***
Would come more frequently	4	15.4	11	27.5	7	50.0	Would go less frequently <sup>3</sup>
Would eliminate conflict over paying	4	15.4	4	10.0	-	-	***
Would depend on future events; crowding, etc.	3	11.5	3	7.5	-	-	***
No difference; come long distance and infrequently	3	11.5	7	17.5	4	28.6	Little or no difference
Expect to pay	2	7.8	3	7.5	1	7.1	Object to paying
Total	26	100.0	40	100.0	14	100.0	

1. Asked of persons who payed a parking fee.
2. Asked of persons who did not pay a parking fee.
3. Because of expense, 1; might not come at all, 2; less frequently, 4.

indications of no difference (we don't come frequently/we'd come anyway), elimination of psychological conflict about paying, expecting to pay, coming to the beach more frequently, and the possibilities of future crowding on the beach.

Overall, 65.0% of the informants paid, while 35.0% did not. Among those who did not pay, the act of paying was associated with a decrease in beach use by 64.3% of the respondents; among those who did pay, not paying was associated with increased beach use and/or future crowding by 26.9% of the respondents. Those associating decreased beach use with payment are 22.5% of the total number of informants, while those associating increased beach use with lack of payment are 17.5% of them.

#### Summary

The per capita amounts of money which informants were willing to pay for the use of Sand Beach and its facilities were not significantly different under circumstances of competitive bidding, knowledge of how revenue is used, responsibility for beach, and lack of influence of other group members. However, the distribution of total amounts which informants were willing to bid at auction was different from the distribution of total amounts for each of the other circumstances; the latter three were not significantly different from each other. Hence, the data indicate that despite variation in approach to payment and the rationalization for it, there is a fairly uniform per capita amount which informants were willing to pay for the use of Sand Beach and its facilities. This relatively uniform "value" is influenced by relationships in the life situations of the informants, as is their willingness to pay.

The most influential factors bearing on willingness to pay were the feelings that one expected something for his money and one should pay for beach maintenance and services.<sup>2</sup> The rights to beach use<sup>3</sup> held by taxpayers and municipality residents were next, while willingness to pay for what one liked was third. The frequency with which these factors were mentioned was greater than the frequency with which there were indications that paying made no difference to informants. Mentioned with lesser frequency than indications of no difference were crowding on the beach and frequency of coming, feeling that one is obligated to pay or expects to, concern with money, and feeling that one should not have to pay.

Requiring payment of informants who had not paid would reduce the beach use for slightly less than two-thirds of

them and make little or no difference to slightly more than one-fourth of them. However, for informants who paid, eliminating payment would increase beach use for about one-sixth of them; slightly less than three-fourths gave no indication of a change in beach use, while slightly over one-tenth indicated that they would not use the beach if it were to become too crowded.

**SECTION II - 1972 DATA**  
**Monetary Evaluation of Beach Experience**

As indicated previously, data pertaining to monetary evaluation of a beach experience were secured in 1972 with the following inquiry:

If one day (the use of this beach for one day) at this beach--for you (and the people who are with you now)--were being auctioned, how much would you be willing to bid for it?

Responses were classified to indicate a monetary bid, an indication that one should not have to pay, or an indication that the informant would bid nothing or would not bid. These responses for 400 informants were then examined in relation to informants' household types, the social status of the head of the informant's household, the increase or decrease in the informant's tension level (levels at work and on the beach being compared), the informant's tension level at work, values of being at the beach, and the informant's occupation.

The type of response given by informants was not associated significantly with any of these characteristics; in other words, the tendency to give a monetary response to the question about bidding for the use of Sand Beach, as compared with other responses, was not correlated significantly with any of the social variables considered. Data are reported in Table VI through Table XI.

As indicated by Chi-square tests, the degrees of association and their probabilities are as follows:

Response and:	$\chi^2$	df	P
Household type	8.3645	4	<0.10
Household status	4.9648	4	<0.30
Tension index change	5.0850	4	<0.30
Tension level at work	6.2081	8	<0.70
Values of beach experience	4.4076	6	<0.70
Informant's occupation	6.1149	10	<0.80

Table VI. Beach Users Classified by Informant's Household Type and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bids	Household Type						Total	
	Family		Living Alone		Mixed*			
	No.	%	No.	%	No.	%	No.	%
Nothing	47	15.1	10	21.7	11	26.2	68	17.0
One should not have to pay; use of the beach is priceless	38	12.2	7	15.2	9	21.4	54	13.5
Monetary	<u>227</u>	<u>72.8</u>	<u>29</u>	<u>63.1</u>	<u>22</u>	<u>52.4</u>	<u>278</u>	<u>69.5</u>
Total	312	100.0	46	100.0	42	100.0	400	100.0

\*Peers, communes and family-friend combinations.

$\chi^2 = 8.3645$ ; df = 4; p < 0.10.

Table VII. Beach Users Classified by Social Status of Informant's Household and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bid	Household Status						Total	
	Low		Middle		High			
	No.	%	No.	%	No.	%	No.	%
Nothing	23	15.3	27	17.0	18	19.8	68	17.0
One should not have to pay; use of the beach is priceless	27	18.0	19	11.9	8	8.8	54	13.5
Monetary	<u>100</u>	<u>66.7</u>	<u>113</u>	<u>71.1</u>	<u>65</u>	<u>71.4</u>	<u>278</u>	<u>69.5</u>
Total	150	100.0	159	100.0	91	100.0	400	100.0

$\chi^2 = 4.9648$ ; df = 4; p < 0.30

Table VIII. Beach Users Classified by Direction of Euphoria-tension Index Change and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bids	Index Changes							
	Lower Index		Same Index		Higher Index		Total	
	No.	%	No.	%	No.	%	No.	%
Nothing	19	17.0	0	0.0	49	17.5	68	17.0
One should not have to pay; use of the beach is priceless	20	17.9	2	25.0	32	11.4	54	13.5
Monetary	<u>73</u>	<u>65.1</u>	<u>6</u>	<u>75.0</u>	<u>199</u>	<u>71.4</u>	<u>278</u>	<u>69.5</u>
Total	112	100.0	8	100.0	280	100.0	400	100.0

$$\chi^2 = 5.085; \text{ df} = 4; \text{ P} < 0.30.$$

Table IX. Beach Users Classified by Euphoria-tension Levels at Work and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bids	Euphoria-tension Levels at Work										
	Anger and Resentment		Tension		Equilibrium		Relaxation		Monotony; Boredom		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Nothing	8	15.7	17	16.0	1	16.7	25	17.2	17	18.5	68 17.0
One should not have to pay; use of the beach is priceless	9	17.6	11	10.4	2	33.3	16	11.1	16	17.4	54 13.5
Monetary	<u>34</u>	<u>66.7</u>	<u>78</u>	<u>73.6</u>	<u>3</u>	<u>50.0</u>	<u>104</u>	<u>71.7</u>	<u>59</u>	<u>64.1</u>	<u>278</u> <u>69.5</u>
Total	51	100.0	106	100.0	6	100.0	145	100.0	92	100.0	400 100.0

$$\chi^2 = 6.2081; \text{ df} = 8; \text{ P} < 0.70$$

Table X. Beach Users Classified by Values of Being at Sand Beach and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bids	Values of Being at Beach										Total	
	Sensory experience		Involvement with Environment		Relaxation		Miscellaneous					
	No.	%	No.	%	No.	%	No.	%	No.	%		
Nothing	11	17.2	38	20.6	9	14.5	10	11.2	68	17.0		
One should not have to pay; use of the beach is priceless	8	12.5	25	13.6	8	12.9	13	14.4	54	13.5		
Monetary	45	70.3	121	65.8	45	72.6	67	74.4	278	69.5		
Total	64	100.0	184	100.0	62	100.0	90	100.0	400	100.0		

$$\chi^2 = 4.4076; \text{ df} = 6; P < 0.70$$

Table XI. Beach Users Classified by Informant's Occupation and Bids for Use of Sand Beach for One Day; 400 Sand Beach Users in July, 1972; Rhode Island.

Bids	Occupations						Total
	Profes- sional	Manager- ial	Crafts; clerical; sales	Opera- tive; service work	Not in labor force	Retired; unemployed	
	No. %	No. %	No. %	No. %	No. %	No. %	
Nothing	18 18.8	13 21.7	10 13.5	9 13.8	16 17.2	2 16.7	68 17.0
One should not have to pay; use of the beach is priceless	15 15.6	6 10.0	7 9.5	9 13.8	14 15.1	3 25.0	54 13.5
Monetary	63 65.6	41 68.3	57 77.5	47 72.3	63 67.7	7 58.3	278 69.5
Total	96 100.0	60 100.0	74 100.0	65 100.0	93 100.0	12 100.0	400 100.0

$$\chi^2 = 6.1149; \text{ df} = 10; P = 0.80.$$

The greatest degree of association between monetary response and a social variable is that for household type. There is greater tendency for informants in family households to give monetary bids than there is for informants living alone or those living in households which were of peers, a commune, or a family-friend combination (Table VI).

#### Per Capita Monetary Bids

Of the 278 informants who gave monetary responses, 270 gave responses adequately specific to use in the computation of per capita bids for each group represented by an informant. Relationships were examined between the per capita bids and each of the social variables indicated above. Data are presented in Table XII through Table XVII. Briefly, the variation in per capita bids is not significantly related to variation in any of the social variables considered. The degrees of association and their probabilities are as follows:

<u>Per capita bid and:</u>	<u><math>\chi^2</math></u>	<u>df</u>	<u>P</u>
Household type	19.8207	12	<0.10
Tension index change	18.3677	12	<0.10
Informant's occupation	37.2873	30	<0.20
Values of beach use	23.7495	18	<0.20
Household status	12.8823	12	<0.50
Tension level at work	23.8311	24	<0.50

Two social variables approach a significant degree of association with per capita bids. One of these is the informant's household type. The second is the direction of change in tension level, when work and beach activity are compared. With respect to the former, there is a tendency for per capita bids of \$10.00 or more to be most closely associated with individuals living alone, while those of less than \$5.00 are most prevalent among family households; those from \$5.00 - 9.99 are most prevalent among households of peers, communes, or family-friend combinations (Table XII). With respect to the latter, the number of people for whom tension levels change exceeds the number for whom tension levels remained the same. And a per capita bid of \$10.00 or more is more closely related to increased relaxation than to increased tension, while the reverse is the case for per capita bids of less than \$5.00 (Table XIII).

Table XII. Beach Users Classified by Informant's Household Type and Per Capita Bids for Use of Sand Beach for One Day;  
270 Sand Beach Users in July, 1972; Rhode Island

Monetary Bids	Household Type							
	Family		Living Alone		Mixed*		Total	
	No.	%	No.	%	No.	%	No.	%
Less than								
\$1.00	36	16.3	4	14.3	5	23.8	45	16.7
\$1.00-1.99	34	15.4	3	10.7	2	9.5	39	14.4
\$2.00-2.99	38	17.2	3	10.7	1	4.8	42	15.6
\$5.00-5.99	21	9.5	5	17.9	5	23.8	31	11.5
Other less than \$10.00	18	8.1	-	-	2	9.5	20	7.4
\$10.00- 49.99	30	13.6	10	35.7	3	14.3	43	15.9
\$50.00 or more	44	19.9	3	10.7	3	14.3	50	18.5
Total	221	100.0	28	100.0	21	100.0	270	100.0

\*Peers, communes, and family-fried combinations.

$\chi^2 = 19.8207$ ; df = 12;  $P < 0.10$ .

Table XIII. Beach Users Classified by Direction of Euphoria-tension Change and Per Capita Monetary Bids for Use of Sand Beach for One Day; 270 Sand Beach Users in July, 1972; Rhode Island.

Monetary Bids	Index Changes							
	Lower Index		Same Index		Higher Index		Total	
	No.	%	No.	%	No.	%	No.	%
Less than \$1.00	10	14.3	-	-	35	18.0	45	16.7
\$1.00-1.99	12	17.1	-	-	27	13.9	39	14.4
\$2.00-2.99	14	20.0	4	66.7	24	12.4	42	15.6
\$5.00-5.99	6	8.6	-	-	25	12.9	31	11.5
Other less than \$10.00	7	10.0	-	-	13	6.7	20	7.4
\$10.00- 49.99	9	12.9	1	16.7	33	17.0	43	15.9
\$50.00 or more	<u>12</u>	<u>17.1</u>	<u>1</u>	<u>16.7</u>	<u>37</u>	<u>19.1</u>	<u>50</u>	<u>18.5</u>
Total	70	100.0	6	100.0	194	100.0	270	100.0

$\chi^2 = 18.3677$ ; df = 12;  $P < 0.10$ ,

Table XIV. Beach Users Classified by Informant's Occupation and Per Capita Monetary Bids for Use of Sand Beach for One Day; 270 Sand Beach Users in July, 1972; Rhode Island.

Monetary Bids	Occupations							Total No. %
	Pro- fes- sional No. %	Mana- ger- ial No. %	Crafts; sales No. %	Opera- clerical; ser- vice work No. %	Not in labor force No. %	Retired; unem- ployed No. %		
	No. %	No. %	No. %	No. %	No. %	No. %		
Less than \$1.00	10 16.1	10 24.4	6 11.1	9 20.0	9 14.8	1 14.3	45 16.7	
\$1.00-1.99	10 16.1	5 12.2	5 9.3	6 13.3	13 21.3	- -	39 14.4	
\$2.00-2.99	6 9.7	5 12.2	12 22.2	6 13.3	12 19.7	1 14.3	42 15.6	
\$5.00-5.99	14 22.6	3 7.3	6 11.1	3 6.7	5 8.2	- -	31 11.5	
Other less than \$10.00	3 4.8	2 4.9	5 9.3	2 4.4	8 13.1	- -	20 7.4	
\$10.00- 49.99	11 17.7	5 12.2	10 18.5	10 22.2	4 6.6	3 42.9	43 15.9	
\$50.00- or more	8 12.9	11 26.8	10 18.5	9 20.2	10 16.4	2 28.6	50 18.5	
Total	62 100.0	41 100.0	54 100.0	45 100.0	61 100.0	7 100.0	270 100.0	

$$\chi^2 = 37.2873; \text{ df} = 30 \quad P < 0.20,$$

Table XV. Beach Users Classified by Values of Being at Sand Beach and Per Capita Monetary Bids for Use of Sand Beach for One Day; 270 Sand Beach Users in July, 1972; Rhode Island.

Monetary Bids	Values									
	Sensory Experience		Involvement and Environment		Relax- ation		Miscel- laneous		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than \$1.00	5	11.4	27	22.7	4	8.9	9	14.5	45	16.7
\$1.00-1.99	5	11.4	20	16.8	6	13.3	8	12.9	39	14.4
\$2.00-2.99	8	18.2	15	12.6	8	17.8	11	17.7	42	15.6
\$5.00-5.99	2	4.5	16	13.4	7	15.6	6	9.7	31	11.5
Other less than \$10.00	4	9.1	12	10.1	3	6.7	1	1.6	20	7.4
\$10.00- \$49.99	8	18.2	11	9.2	10	22.2	14	22.6	43	15.9
\$50.00 or more	12	27.3	18	15.1	7	15.6	13	21.0	50	18.5
Total	44	100.0	119	100.0	45	100.0	62	100.0	270	100.0

$$\chi^2 = 23.7495; \text{ df} = 18; \text{ p} < 0.20,$$

Table XVI. Beach Users Classified by Social Status of Informant's Household and Per Capita Monetary Bids for Use of Sand Beach for One Day; 270 Sand Beach Users in July, 1972; Rhode Island.

Monetary Bids	Household Status						Total	
	Low		Middle		High			
	No.	%	No.	%	No.	%	No.	%
Less than \$1.00	17	18.1	19	17.1	9	13.8	45	16.7
\$1.00-1.99	14	14.9	16	14.4	9	13.8	39	14.4
\$2.00-2.99	17	18.1	11	9.9	14	21.5	42	15.6
\$5.00-5.99	10	10.6	16	14.4	5	7.7	31	11.5
Other less than \$10.00	4	4.3	8	7.2	8	12.3	20	7.4
\$10.00-49.99	17	18.1	20	18.0	6	9.2	43	15.9
\$50.00- or more	15	16.0	21	18.9	14	21.5	50	18.5
Total	94	100.0	111	100.0	65	100.0	270	100.0

$$\chi^2 = 12.7723; \text{ df} = 12; \text{ P} < 0.50,$$

Table XVII. Beach Users Classified by Euphoria-tension Levels at Work and Per Capita Monetary Bids for Use of Sand Beach for One Day; 270 Sand Beach Users in July, 1972; Rhode Island

Monetary Bids	Euphoria-tension Levels at Work											
	Anger and Resentment		Tension		Equili- brium		Relax- ation		Monotony; Boredom		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than \$1.00	5	15.2	13	17.1	-	-	20	19.8	7	12.3	45	16.7
\$1.00- 1.99	4	12.1	7	9.2	1	33.3	19	18.8	8	14.0	39	14.4
\$2.00- 2.99	3	9.1	17	22.4	-	-	9	8.9	13	22.8	42	15.6
\$5.00- 5.99	5	18.2	9	11.9	-	-	12	11.9	4	7.0	31	11.5
Other less than \$10.00	3	9.1	3	3.9	-	-	7	6.9	7	12.3	20	7.4
\$10.00- 49.99	6	18.2	15	19.7	1	33.3	12	11.9	9	15.8	43	15.9
\$50.00 or more	6	18.2	12	15.8	1	33.3	22	21.8	9	15.8	50	18.5
Total	33	100.0	76	100.0	3	100.0	101	100.0	57	100.0	270	100.0

$\chi^2 = 23.8311$ ; df = 24;  $P < 0.50$ ,

### Summary

There are indications, although not statistically strong ones, that the willingness to pay for the use of Sand Beach and its facilities is related to the type of household in which a person lives; the amount which people are willing to pay is associated with the type of household and to the type of tension level change which one experiences in coming to the beach. While families may be more willing than other types of households to pay for use of the beach, people living alone are predominant among those making high per capita bids for the use of the beach. While one's tension level at work has no bearing on one's willingness to pay, people who relaxed at the beach, rather than those who enjoyed tension there, were predominant among those making high per capita bids for the use of the beach.

Neither willingness to pay nor the per capita amount bid had any significant relationship to the informant's occupation, values of being at the beach, social status of the informant's household, or the informant's tension level while at work.

### INTERPRETATION

The data presented here reflect two approaches to the topic of willingness to pay for the use of recreational facilities. In Section I there is an attempt: 1) to assess the amount of money people were willing to pay for the use of Sand Beach and its facilities and 2) to determine attitudes and psychological factors related to life situation characteristics that influence willingness to pay. Section II shows the use of other methods and techniques in examining relationships between willingness to pay, size of payment, and social and psychological variables. In a broad sense, the two approaches and their results complement each other.

The evidence from Section II suggests that willingness to pay may be more closely related to group involvement (household type) and psychological characteristics (relaxation) than to other more or less traditional variables by which informants could be categorized. The evidence from Section I suggests the existence of a relatively uniform per capita amount which informants are willing to pay for the use of Sand Beach and its facilities; in addition, people expect something in return for their money and are willing to pay for beach maintenance and services and for what they like (a natural setting and an uncrowded, clean beach), but temper these inclinations with their rights to beach use if they are taxpayers and/or residents in the municipality operating the beach. Most

of these residents and taxpayers indicate that they would come to the beach less frequently, were they charged a fee, while elimination of paying would change beach use for only a little over a third of the beach users who paid a parking fee.

The act of paying and the amount which people are willing to pay are shown to be socially oriented. Few informants expected to pay as a matter of course; willingness to pay was based to an appreciable extent on a general economic expectation of getting something or service for one's money, whether through fees or taxes, and the personal indulgence of paying for what one liked. The data suggest that these aspects of orientation are tempered by psycho-social characteristics such as the type of household of which one is a member and the relaxation which one experiences at the beach.

FOOTNOTES

<sup>1</sup>See: Spaulding, I. A., Factors Related to Beach Use, University of Rhode Island Sea Grant Marine Technical Report Series No. 13., 1973. The only commercial activity associated with the beach is the operation of a parking lot by the municipality that owns the beach; during "the season," a daily fee is charged for use of this lot.

<sup>2</sup>This is consistent with the data on page 6 which show willingness to pay as associated most strongly with knowledge that revenue is used for beach upkeep and improvement.

<sup>3</sup>This is consistent with the data on page 10 which show a feeling of responsibility for the beach to be second in strength of association with willingness to pay.

Appendix A.  
Description of 1974 Informants

Table I. Number of Persons in Groups Using Beach; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Size of Group								Total
	1	2	3	4	5	6	7	8	
Number	4	16	7	8	2	1	1	1	40
Percent	10.0	40.0	17.5	20.0	5.0	2.5	2.5	2.5	100.0

Table II. Family and Non-family Groups Using Beach; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Types of Groups				Total
	Family	Friends	Family and Friends	Alone	
Number	16	11	9	4	40
Percent	40.0	27.5	22.5	10.0	100.0

Table III. Groups Classified by Age-Category Combinations; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Age-categories of Groups				Total
	Adults	Adults-teens	Adults-children	Adults-teens-children	
Number	29	4	5	2	40
Percent	72.5	10.0	12.5	5.0	100.0

Adult: 18 years of age or older;  
 Teens: 12-17 years of age;  
 Children: under 12 years of age.

Table IV. Informants Classified by Residence; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Residence				Total	
	Rhode Island		Out-of-State			
	Town	Elsewhere	Conn.	Mass.		
Regular Summer						
Number	11	3	12	12	40	
Percent	27.5	7.5	30.0	30.0	100.0	

Table V. Informants' Households Classified by Type; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Household Types			Total
	Family	Mixed	Alone	
Number	30	5	5	40
Percent	75.0	12.5	12.5	100.0

Table VI. Informants' Family Households Classified by Size; 30 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Household Size							Total
	1	2	3	4	5	6	7	
Number	0	13	9	4	1	2	1	40
Percent	-	43.3	30.0	13.3	3.3	6.7	3.3	100.0

Table VII. Informants Classified by Education of Household Head;  
40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Education			Total
	Less than 12 grades	High School or some college	College or more	
Number	4	13	23	40
Percent	10.0	32.5	57.5	100.0

Table VIII. Informants Classified by Household Incomes; 40 Sand Beach  
Users, September, 1974; Rhode Island

Incomes	Informants	
	Number	Percent
\$ 0 - 5,999	3	7.5
6,000 - 8,999	5	12.5
9,000 - 11,999	4	10.0
12,000 - 14,999	8	20.0
15,000 - 17,999	5	12.5
18,000 - 20,999	7	17.5
21,000 - 23,999	2	5.0
24,000 - 26,999	2	5.0
27,000 - 29,999	-	-
30,000 - 32,999	1	2.5
33,000 - 35,999	1	2.5
36,000 - more	2	5.0
Total	40	100.0

Table IX. Informants Classified by Education; 40 Sand Beach Users,  
September, 1974; Rhode Island

Number and Percent	Education			Total
	Less than 12 grades	High School or some college	College or more	
Number	3	16	21	40
Percent	7.5	40.0	52.5	100.0

Table X. Informants Knowledge of How Parking Fees are Used; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Knowledge			Total
	None	Uncertain	Sure	
Number	34	6	-	40
Percent	85.0	15.0	-	100.0

Table XI. Informants' Feelings of Responsibility for the Beach They Use; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Degrees of Responsibility					Total
	None	Slight	Some	A lot	Consistent with taxes	
Number	-	7	6	26	1	40
Percent	-	17.5	15.0	65.0	2.5	100.0

Table XII. Informants' Feelings about the Influence of Accompanying Groups on Decisions about Willingness to Pay for Use of Beach and/or Facilities; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Degree of Influence					Total
	None	Slight	Some	A lot	Not Relevant	
Number	20	5	8	3	4	40
Percent	50.0	12.5	20.0	7.5	10.0	100.0

Table XIII. Informants Paying a Parking Fee; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Paying Fee		Total
	Yes	No	
Number	26	14	40
Percent	65.0	35.0	100.0

Table XIV. Informants Expecting, Before They Came, to Pay a Parking Fee; 40 Sand Beach Users, September, 1974; Rhode Island

Number and Percent	Expected to Pay		Total
	Yes	No	
Number	21	19	40
Percent	52.5	47.5	100.0

Appendix B  
Description of 1972 Informants

Table I. Number of Persons in Groups Using Beach; 400 Sand Beach Users, July, 1972; Rhode Island

Groups	Number of Persons									Total
	1	2	3	4	5	6	7	8	9	
Number	35	178	54	58	40	14	12	5	4	400
Percent	8.8	44.5	13.5	14.5	10.0	3.5	3.0	1.2	1.0	100.0

Table II. Family and Non-family Groups Using Beach; 400 Sand Beach Users, July, 1972; Rhode Island

Groups	Number and Percent	
	Number	Percent
Family	211	52.8
Non-family	<u>189</u>	<u>47.2</u>
Total	400	100.0

Table III. Mean Age of Persons in Groups Using Beach; 400 Sand Beach Users, July, 1972; Rhode Island

Mean age in Years	Groups	
	Number	Percent
0-13	13	3.3
14-16	32	8.0
17-19	74	18.5
20-22	110	27.5
23-25	54	13.5
26-28	29	7.2
29-31	24	6.0
32-more	<u>64</u>	<u>16.0</u>
Total	400	100.0

Table IV. Social Status of Informants' Households; 400 Sand Beach Users, July, 1972; Rhode Island

Social Status Index	Households	
	Number	Percent
100 - 166 (low)	150	37.5
167 - 233 (middle)	159	39.8
234 - 300 (high)	<u>91</u>	<u>22.7</u>
Total	400	100.0

Table V. Location of Residence; 400 Sand Beach Users, July, 1972; Rhode Island

Location of Residence	Beach Users	
	Number	Percent
Sand Beach Town	66	21.6
Other Rhode Island	182	45.6
Connecticut	68	17.1
Massachusetts	36	9.1
Other states	<u>28</u>	<u>6.6</u>
Total	400	100.0

Table VI. Informants Classified by Household Type and Household Social Status;  
400 Sand Beach Users, July, 1972; Rhode Island

Household Type	Household Social Status						Total	
	Low		Middle		High			
	No.	%	No.	%	No.	%	No.	%
Family	111	74.0	115	72.3	86	94.5	312	78.0
Living Alone	18	12.0	26	16.4	2	2.2	46	11.5
Mixed*	<u>21</u>	<u>14.0</u>	<u>18</u>	<u>11.3</u>	<u>3</u>	<u>3.3</u>	<u>42</u>	<u>10.5</u>
	150	100.0	159	100.0	91	100.0	400	100.0

\*Peers, communes, and family-friend combinations

 $\chi^2 = 20.6656$ ; df = 4; P < 0.001.Table VII. Informants Classified by Occupation and Household Social Status;  
400 Sand Beach Users, July, 1972; Rhode Island

Occupation	Household Social Status						Total	
	Low		Middle		High			
	No.	%	No.	%	No.	%	No.	%
Professionals	9	6.0	57	35.8	30	33.0	96	24.0
Managers	7	4.7	27	17.0	26	28.5	60	15.0
Craft, clerical and sales	37	24.7	30	18.9	7	7.7	74	18.5
Operatives and service workers	46	30.7	15	9.4	4	4.4	65	16.3
Housewives and students (nlf)	40	26.7	29	18.2	24	26.4	93	23.2
Retired and unemployed persons	<u>11</u>	<u>7.2</u>	<u>1</u>	<u>0.6</u>	<u>-</u>	<u>-</u>	<u>12</u>	<u>3.0</u>
	150	100.0	159	100.0	91	100.0	400	100.0

 $\chi^2 = 120.1841$ ; df = 10; P < 0.001

Table VIII. Informants Classified by Occupation and Household Type; 400 Sand Beach Users, July, 1972; Rhode Island

Occupation	Household Type							
	Family		Living Alone		Mixed X		Total	
	No.	%	No.	%	No.	%	No.	%
Professionals	69	22.1	18	39.1	9	21.4	96	24.0
Managers	51	16.4	4	8.7	5	11.9	60	15.0
Craft, clerical and sales	55	17.6	10	21.7	9	21.4	74	18.5
Operatives and service workers	48	15.4	5	10.9	12	28.6	65	16.3
Housewives and students (nlf)	81	25.9	7	15.7	5	11.9	93	23.2
Retired and unemployed persons	8	2.6	2	4.4	2	4.8	12	3.0
Total	312	100.0	46	100.0	42	100.0	400	100.0

\*Peers, communes, and family-friend combinations.

$\chi^2 = 23.882163$ ; df = 10;  $P < 0.01$ .

Table IX. Informants Classified by Values of Being at Sand Beach and Household Social Status; 400 Sand Beach Users, July, 1972; Rhode Island

Values	Household Social Status						Total	
	Low		Middle		High			
	No.	%	No.	%	No.	%	No.	%
Sensory experience	23	15.3	25	15.7	16	17.6	64	16.0
Involvement with environment	69	46.0	65	40.9	50	54.9	184	46.0
Relaxation	14	9.3	33	20.8	15	16.5	62	15.5
Miscellaneous	44	29.4	36	22.6	10	11.0	90	22.5
Total	150	100.0	159	100.0	91	100.0	400	100.0

$\chi^2 = 17.7232$ ; df = 6; P < 0.001.

Table X. Informants Classified by Values of Being at Sand Beach and Household Type; 400 Sand Beach Users, July, 1972; Rhode Island

Values	Household Type						Total	
	Family		Living Alone		Mixed*			
	No.	%	No.	%	No.	%	No.	%
Sensory experience	51	16.3	8	17.4	5	11.9	64	16.0
Involvement with environment	151	48.4	16	34.8	17	40.5	184	46.0
Relaxation	52	16.7	6	13.0	4	9.5	62	15.5
Miscellaneous	58	18.6	16	34.8	16	38.1	90	22.5
Total	312	100.0	46	100.0	42	100.0	400	100.0

\*Peers, communes and family-friend combinations.

$\chi^2 = 13.6112$ ; df = 6; P < 0.05.

Table XI. Informants Classified by Values of Being at Sand Beach and Occupations;  
400 Sand Beach Users, July, 1972; Rhode Island

Values	Occupations						Total
	Profes- sionals	Manag- ers	Craft, clerical and sales	Operatives and service workers	Housewives and students (nlf)	Retired and unemployed persons	
	No. %	No. %	No. %	No. %	No. %	No. %	
Sensory experience	18 18.8	7 11.7	9 12.2	13 20.0	15 16.1	2 16.7	64 16.0
Involvement with environment	45 46.9	28 46.7	38 51.4	29 44.6	39 41.9	5 41.7	184 46.0
Relaxation	14 14.6	15 25.0	9 12.2	8 12.3	15 16.1	1 8.3	62 15.5
Miscellane- ous	19 19.7	10 16.6	18 24.2	15 23.1	24 25.9	4 33.3	90 22.5
Total	96 100.0	60 100.0	74 100.0	65 100.0	93 100.0	12 100.0	400 100.0

$$\chi^2 = 10.7294; \text{ df} = 15; \text{ P} < 0.80$$

Table XIII. Informants Classified by Values of Being at Sand Beach and Tension Levels at Work; 400 Sand Beach Users, July, 1972; Rhode Island

Values	Euphoria-tension Levels												
	Anger and Resentment				Equilibrium				Relaxation		Monotony; Boredom		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sensory experience	9	17.6	15	14.2	1	16.6	22	15.2	17	18.5	64	16.0	
Involvement with environment	17	33.3	48	45.3	3	50.0	75	51.7	41	44.6	184	46.0	
Relaxation	11	21.6	16	15.0	1	16.7	20	13.8	14	15.2	62	15.5	
Miscellaneous	<u>14</u>	<u>27.5</u>	<u>27</u>	<u>25.5</u>	<u>1</u>	<u>16.7</u>	<u>28</u>	<u>19.3</u>	<u>20</u>	<u>21.7</u>	<u>90</u>	<u>22.5</u>	
Total	51	100.0	106	100.0	6	100.0	145	100.0	92	100.0	400	100.0	

$\chi^2 = 6.8627$ ; df = 12; P < 0.90.

Table XIII. Informants Classified by Values of Being at Sand Beach and Direction of Tension Change; 400 Sand Beach Users, July, 1972; Rhode Island

Values	Index Changes											
	Lower Index		Same Index		Higher Index		Total					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sensory experience	18	16.1	4	50.0	42	15.1	64	16.0				
Involvement with environment	50	44.6	2	25.0	132	47.1	184	46.0				
Relaxation	16	14.3	-	-	46	16.4	62	15.5				
Miscellaneous	<u>28</u>	<u>25.0</u>	<u>2</u>	<u>25.0</u>	<u>60</u>	<u>21.4</u>	<u>90</u>	<u>22.5</u>				
Total	112	100.0	8	100.0	280	100.0	400	100.0				

$\chi^2 = 8.8251$ ; df = 6; P < 0.20.

APPENDIX C

Questionnaire--1974

University of Rhode Island  
 COLLEGE OF RESOURCE DEVELOPMENT  
 Department of Resource Development  
 Kingston, Rhode Island

bui-2  
 9/74

No. \_\_\_\_\_  
 Date. \_\_\_\_\_

I. Today, did you pay to use this beach or any of its facilities?  
 A. Yes \_\_\_\_\_ B. No \_\_\_\_\_ C. How much? \_\_\_\_\_

II. What difference does it make to you whether you pay or not?  
 B. (If pay) What difference would it make to you, if your  
 didn't have to pay for use of this beach?  
 C. (If not pay) What difference would it make to you, if  
 you had to pay for the use of this beach?  
 D. On the whole, how do you feel about paying for the use  
 of this beach?

III. Informant's household type: Family \_\_\_\_\_ Alone \_\_\_\_\_ Mixed \_\_\_\_\_

IV. If ONE DAY (the use of the beach for one day) at this beach--  
 for you (and the people who are with you now)--were being  
 auctioned how much would you be willing to bid for it?  
 \_\_\_\_\_

V. Household head: A. Occupation \_\_\_\_\_ B. Education \_\_\_\_\_

VI. A. If you knew the money you paid for use of this beach  
 would be used for up-keep and improvement of the beach,  
 how much would you be willing to pay for the use of the  
 beach for one day, for you and the people with you?  
 \_\_\_\_\_

B. How would you best describe your knowledge about how the  
 fees which are collected here are used? No knowledge \_\_\_\_\_  
 Uncertain \_\_\_\_\_ Sure of use \_\_\_\_\_ Other \_\_\_\_\_

V. C. Group: Number of adults \_\_\_\_\_ teens \_\_\_\_\_ children \_\_\_\_\_  
 Family \_\_\_\_\_ Friends \_\_\_\_\_ Institutional \_\_\_\_\_  
 Other \_\_\_\_\_

VII. A. If you felt that as a beach user you were responsible for  
 the beach, how much would you be willing to pay for the  
 use of the beach for one day, for you and the people who  
 are with you now?  
 \_\_\_\_\_

B. How would you best describe your feeling about your responsibility for the beach?

None  Slight  Some  A lot  Other

V. D. Informant: Occupation \_\_\_\_\_; Education \_\_\_\_\_

VIII. A. If you felt that the people who are with you weren't influencing your decision, how much would you be willing to pay for the use of the beach for one day, for yourself and them? \_\_\_\_\_

B. To what extent do you feel they influence your decision?

None  Slight  Some  A lot  Other

V. E. Income during the past year: Household \_\_\_\_\_ Informant \_\_\_\_\_

IX. When you planned to come to this beach, did you expect to pay for its use? \_\_\_\_\_

Household Income. Check the income range which indicates the total income for all your household members during the past year.

a. \$0 - 5,999  g. 21,000-23,999

b. 6,000- 8,999  h. 24,000-26,999

c. 9,000-11,999  i. 27,000-29,999

d. 12,000-14,999  j. 30,000-32,999

e. 15,000-17,999  k. 33,000-35,999

f. 18,000-20,999  l. 36,000 or more

APPENDIX D

Questionnaire--1972

BUQ  
7/72 Int \_\_\_\_\_University of Rhode Island  
COLLEGE OF RESOURCE DEVELOPMENT  
Department of Resource Economics  
Kingston, Rhode IslandNo. \_\_\_\_\_  
Date \_\_\_\_\_

Dear Sir or Madam:

The information asked for in this questionnaire is part of a study being made by the Department of Resource Economics at the University of Rhode Island. The study deals with people and their use of Rhode Island beaches.

Your assistance is requested. You can help understand and solve some of the problems of beach use by filling out this questionnaire and returning it in the enclosed prepaid envelope.

Your privacy is guaranteed. INFORMATION RECEIVED on this questionnaire IS CONFIDENTIAL. DO NOT SIGN YOUR NAME OR MAKE ANY IDENTIFYING MARKS ON IT.

Please answer each question. Start with the first question on this page and finish each page before going on to the next one.

Many thanks for your assistance.

Sincerely,

Irving A. Spaulding  
Sociologist

\*\*\*\*\*

I. Household Composition. In the following form, make appropriate entries on one line for each person currently living in your household. CHECK THE NUMBER ON THE LEFT WHICH INDICATES YOU.

Members and : relationship: Sex : to head :	Age : Last : Birthday:	Education : (Years) : Completed):	Marital Status : Single; Married Widowed; Divorced
---	------------------------	-----------------------------------	--

1. HEAD*: M F :	_____ :	_____ :	S M W D
2. _____ : M F :	_____ :	_____ :	S M W D
3. _____ : M F :	_____ :	_____ :	S M W D
4. _____ : M F :	_____ :	_____ :	S M W D
5. _____ : M F :	_____ :	_____ :	S M W D
6. _____ : M F :	_____ :	_____ :	S M W D
7. _____ : M F :	_____ :	_____ :	S M W D
8. _____ : M F :	_____ :	_____ :	S M W D
9. _____ : M F :	_____ :	_____ :	S M W D
10. _____ : M F :	_____ :	_____ :	S M W D

\*Possible relationships of members to household head: Spouse (husband or wife) son, daughter, father, mother, brother, sister, uncle, aunt, brother-in-law, sister-in-law, son-in-law, daughter-in-law, nephew, niece, father-in-law, mother-in-law, grandfather, grandmother, grandson, granddaughter, cousin. Other. Not related.

II. Occupation of Household Head. Write in the type of work the household head does currently (has done during past 12 months). Describe thoroughly or identify precisely.

BUQ  
7/72 Int.

No \_\_\_\_\_

### III. Education of Household Head.

A. Formal training: check the highest grade completed.

Grade school	1	2	3	4	5	6	7	8
High school	1	2	3	4				
College	1	2	3	4				
Graduate study	1	2	3	4	more than			

Degrees: MA or MS  Ph.D  Other (specify)

B. Professional or trade school: check the number of years completed.

0 1 2 3 4 5 6 or more

Degrees or certificates

IV. For respondent not household head. Respondent's occupation. Write in the type of work you are currently doing (have done during the past 12 months). Please describe thoroughly or identify precisely.

V. For each of the following, check the answer most nearly accurate for you (respondent).

To what extent is your: Extent  
 OCCUPATIONAL ACTIVITY : Very : Great : Moderate : Slight : Very : None  
 regulated according to: great : Great : ate : Slight : Slight : None  
 Clocks, calendars, and: : : : : : :  
 machines? : : : : : :  
 Activities of other : : : : : :  
 people? : : : : : :  
 Your own feelings? : : : : : :  
 : : : : : :  
 Sunrise, sunset, tides: : : : : :  
 weather, and other : : : : : :  
 natural events? : : : : : :

VI. Below, indicate the season, days of the week, and times of day that you prefer to come to this beach. Use the following abbreviations: S, spring; Su, summer; F, fall; W, winter. Put the appropriate abbreviations in the appropriate spaces.

	a. During the week					b. Week-ends	
Hour of day:	Mon.:	Tues.:	Wed.:	Thurs.:	Fri.:	Sat.:	Sun.:
12 - 3 a.m.:	SSUFW	SSUFW	SSUFW	SSUFW	SSUFW	SSUFW	SSUFW
3 - 6 a.m.:							
6 - 9 a.m.:							
9 - 12 a.m.:							
12 - 3 p.m.:							
3 - 6 p.m.:							
6 - 9 p.m.:							
9 - 12 p.m.:							

BUQ  
7/72 Int \_\_\_\_\_No \_\_\_\_\_  
Date \_\_\_\_\_

VII. For each of the following statements, check the response which is most nearly accurate for you.

(ii, iv) WHILE WORKING AT MY JOB, I USUALLY FEEL:

RESENTFUL

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

RELAXED

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

TIRED

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

ANGRY OR MAD

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

THAT THINGS ARE MONOTONOUS

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

ENERGETIC

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

BORED

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

TENSE OR ANXIOUS

Always Very often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak Very weak

BUQ  
7/72 Int \_\_\_\_\_No \_\_\_\_\_  
Date \_\_\_\_\_

VII. For each of the following statements, check the response which is most nearly accurate for you.

WHILE AT THE BEACH, I USUALLY FEEL:

RESENTFUL

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

RELAXED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

TIRED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

ANGRY OR MAD

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

THAT THINGS ARE MONOTONOUS

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

ENERGETIC

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

BORED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak   

TENSE OR ANXIOUS

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak

7/72 Int \_\_\_\_\_

Date \_\_\_\_\_

IX. For each of the following, check the answer most nearly accurate for you. (respondent)

To what extent is your:	Extent				
ACTIVITY WHILE AT THIS:	Very	Moder-	Great	Great	Very
BEACH	:Great	:Great	:ate	:Slight	:Very
regulated according to:	:	:	:	:	:None:
Clocks, calendars, and:	:	:	:	:	:
machines?	:	:	:	:	:
Activities of other:	:	:	:	:	:
people?	:	:	:	:	:
Your own feelings?	:	:	:	:	:
	:	:	:	:	:
Sunrise, sunset, tides:	:	:	:	:	:
weather, and other:	:	:	:	:	:
natural events?	:	:	:	:	:

X. Household income. Check the income range which indicates the total income for all your household members during the past year

a. \$0 5,999 e. 15,000-17,999 i. 27,000-29,999  
 b. 6,000- 8,999 f. 18,000-20,999 j. 30,000-32,999  
 c. 9,000-11,999 g. 21,000-23,999 k. 33,000-35,999  
 d. 12,000-14,999 h. 24,000-26,999 l. 36,000-or more

XI. If you were not at this beach now, where would you be?

XII. If you were not at this beach now, what would you be doing?  
 How would you feel about that?

XIII. For each of the following, check the answer most nearly accurate for you.

To what extent would :	Extent				
THE ACTIVITY INDICATED:	Very	Moder-	Great	Great	Very
ABOVE (xii) be	:Great	:Great	:ate	:Slight	:Slight
regulated according to:	:	:	:	:	:
Clocks, claendars, and:	:	:	:	:	:
machines?	:	:	:	:	:
Activities of other:	:	:	:	:	:
people?	:	:	:	:	:
Your own feelings?	:	:	:	:	:
	:	:	:	:	:
Sunrise, sunset, tides:	:	:	:	:	:
weather, and other:	:	:	:	:	:
natural events?	:	:	:	:	:

XIV. If ONE DAY at this beach --- for you (and the people who are with you now) --- were being auctioned, how much would you be willing to bid for it? \$ \_\_\_\_\_

XV. What would you miss most about going to the beach, if you had to stop doing it?

BUQ  
7/72 Int. \_\_\_\_\_

No \_\_\_\_\_

Date \_\_\_\_\_

XVI. For each of the following statements, check the response which is most nearly accurate for you.

WHILE ENGAGED IN THE ACTIVITY ABOVE (xi), I USUALLY FEEL:

RESENTFUL

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

RELAXED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

TIRED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

ANGRY OR MAD

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

THAT THINGS ARE MONOTONOUS

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

ENERGETIC

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

BORED

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

TENSE OR ANXIOUS

Very  
Always often Often Sometimes Seldom seldom Never  
The feeling is usually:  
Very strong Strong Moderate Weak Very weak \_\_\_\_\_

THANK YOU!