

## The Effects of Festival Attributes Upon Perceptions of Crowding

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The primary purpose of this study was to explore the relationship between festival attributes and perceived crowding at a festival site. Visitors to the Northwest Folklife Festival in Seattle, Washington, were chosen by a systematic sampling method to complete an on-site and follow-up survey. These surveys included questions which addressed the determinate attributes in choosing to come to the Festival, including programmed and social/experiential attributes. Additional items included on the follow-up survey included service quality and environmental attributes, as well as questions related to crowding. Multiple regressions were run to test which attributes were related to perceived crowding. Depending on the regression model, "opportunity to relax" and "opportunity to people watch." were found to be significantly related to perceived crowding. The "uniqueness of the festival" approached significance in both regression models.

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### Introduction

A great deal of research related to perceived crowding has been conducted within the outdoor recreation setting (cf., Ditton, Fedler, & Graefe, 1983; Hammitt, 1983; Knopf, 1987; Kuentzel & Heberlein, 1992; Shelby, Heberlein, Vaske & Alfana, 1983). Manning (in Westover, 1989, p. 258) stated that this research has typically treated crowding as a negative phenomena. However, in situations where people are expecting, if not desiring crowds as part of their experience, this model does not suffice (Eroglu & Harrel, 1986). For example, in retail settings, crowding has been found to be one of the factors that may provide consumers with a sense of excitement and stimulation (Foxall & Goldsmith, 1994; Geller, 1980; Saerget, 1973). A model based on this premise was developed by Harrel and Hutt (1976). It consisted of the antecedents to a purchase, the perception of crowding, the adaptation strategies implemented by individuals, and the outcomes the individuals chose. Eroglu and Harrel expanded upon the model by adding the concept of *functional density*, which

has approximately the opposite definition of perceived crowding. Functional density is a term for "good crowding," or when crowding can actually augment an experience. According to the authors, the antecedents or attributes of an experience contribute to the generation of perceived crowding or functional density.

Based upon this approach to crowding, the researcher developed five items forming a perceived crowding/functional density scale. This and other relevant items were tested at the Northwest Folklife Festival, an annual event held on Memorial Day weekend at the Seattle Center just north of the main metropolitan area of Seattle. The Northwest Folklife Festival provides to its community a wide array of ethnic and regional performers, special exhibits and workshops, street performers, crafts and imports, as well as a variety of ethnic foods. Although the Festival is highly organized in its management and structure, spontaneity is valued as a form of expression at this unique Festival. The cultural theme of the 1996, 25th anniversary festival was *Mabuyah Pilipias!*, or "Long Live the Philippines."

The purpose of this study was to examine the relationship between festival attributes and perceived crowding.

### Methodology

In developing the survey instrument, five perceived crowding questions were included to test for both the positive and negative effects of crowding at the Festival. A list of attributes of the Festival was also generated through referencing the literature and discussions with the management of the Festival. The resulting attributes fell into four major categories: 1) integral programmed components of the Festival, 2) aspects of the event that provided social or experiential qualities, 3) the physical environment of the Festival grounds, and 4) the service quality provided by staff and volunteers. For the purpose of this paper, only the integral programmed components and the social or experiential qualities of the Festival were addressed.

In administering the survey, a systematic sampling method was utilized to administer 673 on-site questionnaires to Festival attendees as they entered the grounds of the Festival. This sample size was deemed acceptable at the 95% confidence level  $\pm 3\%$ . The investigator and trained volunteers were strategically positioned at four entry gates each of the four days of the Festival. Based on daily attendance estimates, surveys were administered proportionally to obtain as representative a sample as possible. In addition, surveys were administered throughout the day in an effort to eliminate bias.

Individuals were interviewed on site and, if they agreed, were asked to complete a follow-up questionnaire once they returned home. All respondents received a follow-up thank-you/reminder post-card and one additional mailing was made to non-respondents. The overall response rate was 60% (n=406).

The data analysis included descriptive statistics of the demographic background of the sample, and a series of five

multiple regression analyses that explored the relationship between Festival attributes and the perception of crowding.

**Results**

Table 1 provides a descriptive profile of the Festival sample. Respondents tended to visit the Festival with friends and relatives, and were predominantly local, female, and well educated. Income levels were evenly distributed among the respondents.

Table 1: Overall profile of respondents

Descriptive Characteristics	Percent of Total
<b>Group Composition (n=335)</b>	
Friends/relatives over 18	63.6% <sup>a</sup>
Spouse or partner	46.7%
Own Children	17.9%
Children of friends/relatives	17.3%
Other	5.7%
<b>Visitors' Home Residence (n=399)</b>	
King County	66.9%
Outside King County	33.1%
<b>Gender (n=395)</b>	
Male	36.2%
Female	63.8%
<b>Total Household Income (n=368)</b>	
Under \$24,000	20.9%
\$24,001-\$35,000	8.5%
\$35,001-\$50,000	21.7%
\$50,001-\$75,000	21.7%
\$75,001 and above	7.1%
<b>Education Level (n=400)</b>	
Less than High School	2.8%
High School Graduate	6.0%
Trade/Vocational School	3.3%
Some College	23.3%
College Graduate	34.3%
Graduate School	29.5%
Other	1.0%

<sup>a</sup>Individuals could respond to all of the categories that applied; thus, the percentages will exceed 100%.

Note: Percentages may not add up to 100% due to rounding.

The total n of each category does not match as a result of missing data.

Individuals' perception of crowding at the Festival was obtained through five different questions. The first question required respondents to indicate whether other Festival attendees detracted or added to their experience. Most attendees (79%) indicated that to some degree the other attendees added to their experience. The second question addressed whether sights, sounds, and movement within the Festival were "very un-enjoyable" to "very enjoyable." Approximately 92% of the respondents indicated that this dimension was to some degree enjoyable. The next question, which addressed the notion of physical density, directed respondents to indicate if the Festival would have been enjoyable with "many fewer people" to "many more people." Only 11% of the respondents indicated that they would be happier with more people, the majority (52%) were neutral on the issue. The

final two questions focused on waiting in lines. Approximately two-thirds of the respondents felt that the lines for food and souvenir vendors as well as performances were tolerable. To provide an overall measure of perceived crowding, an index was generated by summing the means of the responses to the five questions and dividing by five. The reliability of the index, using the Chronbach alpha statistic, was .71.

In order to test the relationship between Festival attributes and perceived crowding, multiple regression procedures were employed. Two models, an importance/performance model and a performance only model, were adopted in an effort to determine: (a) which attributes proved to be significantly related to perceived crowding, and (b) which model accounted for the most variance in the dependent variable, crowding. Further, given the fact that very little research has been done in the festival setting, it was hoped that multiple analyses would provide further insight to individuals' perceptions of crowding. The first model is similar to one proposed by Crompton and Love (1995). To test this model, z-scores were formulated to equalize the importance and performance scales. The importance scale was originally a five-point scale and the performance scale was originally a seven-point scale. The values derived from this model were created by subtracting the z-score values of the performance scores from the z-score values of the importance scores. The resulting values represented the degree to which expectations of each attribute were or were not met.

Table 2: Results of multiple regression of attributes of the Festival on Perceived Crowding: The importance-performance model

Attributes r	Bivariate r	Standardized Coefficient
Music and dance performances	.130***	.054
Street performers	.107*	.024
The food	.122**	.065
Crafts and imports		
shopping	.141**	.055
Opportunity to be with family/friends	.092*	.007
Opportunity to be outside	.141**	.025
Opportunity to people watch.	.127**	.028
Uniqueness of the Festival	.211***	.134
Opportunity to relax	.222***	.137*
Opportunity to socialize	.186***	.070
Opportunity to try new things	.136**	-.010
Opportunity to experience the unexpected	.119**	-.033

R<sup>2</sup> = .092      P = .006      n = 295

\* significant at the .05 level    \*\* significant at the .01 level  
 \*\*\* significant at the .001 level

Initially, a multiple regression procedure using a listwise deletion was adopted for Table 2. However, the total n on the initial run was 16. Because this did not provide an adequate representation of the sample, programmed attributes with a large percentage of responses indicating "Did not experience" were deleted from the multiple

regression procedure. After deleting these variables from the regression and running a pairwise deletion, the R squared for the remaining 12 variables was .09. The total n for the regression was 404. Pairwise multiple regressions were used for the remaining analyses.

The results shown in Table 2 indicate that on a bivariate level, all 12 independent variables were significantly correlated with the dependent variable. The strongest was "opportunity to relax" (r= .22), followed by "uniqueness of the Festival" (r= .21), and "opportunity to socialize" (r= .19). The multivariate analysis revealed one item, "opportunity to relax," was significant at the .05 level. "Uniqueness of the Festival" approached significance with a significance level of .058. Nine percent of the variance in crowding was accounted for by the importance-performance model.

Individuals were asked to indicate how well the Festival performed on the integral programmed components and the social or experiential qualities of the Festival. The second model, the performance only model, is limited to these performance values. The results shown in Table 3 of the performance only model document that on a bivariate level all the independent variables were significantly correlated with the dependent variable, perceived crowding. The strongest correlations were with "opportunity to relax" (r= .33) and "opportunity to experience the unexpected" (r= .32). The multivariate analysis again revealed that "opportunity to relax" was significant at the .05 level. However, "opportunity to people watch" was also significant at the .05 level in this model. The "uniqueness of the Festival" again approached significance with a value of .052. Just over 24% of the variance in crowding was explained by this model.

Table 3: Results of multiple regression of attributes of the Festival on Perceived Crowding: The performance only model

Attribute	Bivariate r	Standardized Coefficient
Music and dance performances	.248***	.065
Street performers	.232***	.094
The food	.245***	.091
Crafts and imports shopping	.257***	.074
Opportunity to be with family/friends	.199***	.017
Opportunity to be outside	.269**	.033
Opportunity to people watch	.300**	.126*
Uniqueness of the Festival	.302***	.118
Opportunity to relax	.332***	.162*
Opportunity to socialize	.309***	.069
Opportunity to try new things	.248***	.050
Opportunity to experience the unexpected	.316***	.075

R<sup>2</sup> = .245      P=.001      n=315

\* significant at the .05 level    \*\* significant at the .01 level

\*\*\* significant at the .001 level

## Conclusions and Implications

Overall, people had a positive perception of the "crowd" at the Festival. More than three-fourths of the respondents indicated that to some degree other people added to their experience. A much greater percentage (92%) suggested that the sights, sounds, and movement within the Festival were quite enjoyable. This finding contradicts much of the research to date in the recreation field. Most studies indicate that crowding is a negative. The findings of this study suggest the opposite.

Both regression models documented that two of the social/experiential variables, "opportunity to relax" and "opportunity to people watch" were positively related to perceived crowding. It seems ironic that one would seek relaxation in an environment with such high density and stimulation. But, as Baum (1991) asserted, for many individuals outdoor natural environments provide relaxation, but for others, an urban environment can also reduce stress. He claims that it is a common bias in research to consider every man made environment one which encourages stress. Relaxation in this context may be seen as an overall release of a daily routine rather than exclusively a low stimulation experience. Further, the fact that "opportunity to people watch" was found to be significant may be linked to the novelty of the Festival, as the Festival provides an abundantly garish atmosphere.

The near significance of the attribute, "uniqueness of the event," is undoubtedly linked to the character of the Festival. Botterill (1986) asserted that novelty is the primary reason for indulging in a touristic experience. In this touristic setting, the novelty of the event is very influential in how one perceives crowding on-site. Further research should address the novelty-crowding relationship.

The varying results between the two regression models suggest that we must be very careful what types of regression models we use when analyzing data and implementing policy based on data. Results on a bivariate level indicated that all of the attributes tested in each regression model were significant, yet when tested in a series of multiple regressions, fewer variables were found to be statistically linked to perceived crowding.

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