PREFERENTIAL AND EVALUATIVE RESPONSES TO FLORIDA HIGHWAYS

John Paul Jones III

How highways are perceived, both evaluatively and preferentially, is the subject of this paper. Specifically, it attempts to determine if highways are differentially preferred, and if so, what criteria are most important in highway assessment. In addition, it asks to what extent does the manager-user group dichotomy perceived by some permeate other facets of the environment, notably, highways.

Research Design

The Highways

Seven major Florida highways were selected for the study: Interstate-10, Interstate-4, Interstate-95, Interstate-75, the Florida Turnpike, US 27, and the Everglades Parkway, or Alligator Alley. The respondents ranked the highways from this list with which they were familiar in terms of their preference for driving on that highway. After they ranked highways, the respondents used an adjective checklist (ACL) to evaluate their most and least preferred highways. Following the completion of the ACL (consisting of twenty-three pairs of word opposites), they circled five words in the list that most contributed to their like or dislike for that highway. Such a format has been used successfully by geographers to obtain both preference and evaluative information of the environment.

Since only the most and least preferred highways were evaluated for each respondent, some "gaps" occurred in the data. For example, Interstate-95 was most preferred by one respondent, and least preferred by one respondent. To make an evaluative/preferential judgment on such limited information would be spurious. (Further efforts could proceed in the direction of evaluating moderately preferred highways, introducing a larger sample size, or by concentrating on one highway.)

The Respondents

Much has been made in recent years of the differences in perceptions between resource managers and various user groups. Differences have been verified empirically in forest management, as well as for an urban arboretum. One of the objectives of this study is to determine what differences exist between highway design engineers, and the user group, those who drive on the highways. Twelve design engineers from the Florida Department of Transportation were included among the twenty-seven respondents to the survey. The engineers were instructed that they were chosen to complete the questionnaire because of their professional status. They were not instructed, however, to complete the questionnaire from an "engineering standpoint" or from a "driver standpoint." The extent to which this affects the results is unknown.

The remaining fifteen respondents included four truck drivers, two Florida State Highway Patrolmen, two long-distance bus drivers, and seven car drivers known to be familiar with most of Florida's highways. Although no suggestion of randomness is made, the small sample does include the most important types of vehicular traffic.

Additional Information Collected

To augment the preference ratings and the results of the ACL, the respondents were asked to what extent they enjoy the following activities while driving: listening to music; listening to or talking on the CB; reading billboards and signs; and looking at the land. They were also instructed to imagine their idea of the "perfect" highway, and from this mental construct to respond to the
question, which of the following would best describe the amount of billboards [on the "perfect" highway]: (1) no billboards, (2) one or two at intersections only, (3) one or two every five miles, (4) one or two every mile, or (5) three or more per mile?

The Results

Designers vs. Users?

No significant differences were recorded between the design engineers and the respondents consisting of the user group. Nearly every highway was evaluated identically for both groups. For those highways evaluated somewhat differently, the number of responses was too small to uncover anything more than minor aberrations. Furthermore, the designers coincided well with the user group on the things they like to do while driving, as well as for the preferred number of billboards. Small differences that did occur will be noted, but for the purpose of evaluating the highways, the two groups are combined.

Highway Rankings

The Most Preferred Highway. Interstate-10 was overwhelmingly the most preferred highway studied (Table 1). I-10's mode response on the rank was "1," and the average rank response was a favorable 2.04. I-10 was ranked most preferred by fifteen of the respondents. The ACL's given by these fifteen individuals indicate why I-10 is preferred. It was generally viewed as very quiet, smooth, open, energy efficient, beautiful, safe, clean, and new. It was perceived as fairly quick, pleasant, fast-paced, natural, rural, uniform, ordered, and empty. No consensus was reached on the following word pairs: boring/interesting, heavy traffic/light traffic, few police/many police, hilly/flat, or adequate facilities/inadequate facilities. The highway was weak with regard to the vivid/drab word pair as well. This may explain why two of the twenty-seven respondents regarded it as their least preferred highway. Both indicated that the highway was drab, and both felt that one of the five most important words contributing to their disdain for I-10 was "boring."

<table>
<thead>
<tr>
<th>Highway</th>
<th>1st*</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>N</th>
<th>( \bar{X} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>25</td>
<td>2.04</td>
</tr>
<tr>
<td>I-75</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>23</td>
<td>2.69</td>
</tr>
<tr>
<td>Florida Turnpike</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>16</td>
<td>3.00</td>
</tr>
<tr>
<td>I-4</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>3.41</td>
</tr>
<tr>
<td>I-95</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>20</td>
<td>3.60</td>
</tr>
<tr>
<td>US 27</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>22</td>
<td>3.68</td>
</tr>
<tr>
<td>Alligator Alley</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>12</td>
<td>5.15</td>
</tr>
</tbody>
</table>

* Number of respondents who ranked highway first (most preferred)
Positive respondents felt the most important descriptors of I-10 were: smooth, open, pleasant, fast-paced, rural, safe, and efficient. The fact that the highway was perceived as fairly rural and "natural" indicates that a certain amount of countryside satisfaction may be gleaned from driving I-10 through North Florida.

The design engineers and the user group differed somewhat on the ACL. Engineers tended to find the Interstate more bounded, quicker, and more efficient (certainly "efficient" is common in engineering jargon). Users perceived the Interstate as more open and smoother than the engineers, but not quite as quick or efficient.

The Least Preferred Highway. The Everglades Parkway, or Alligator Alley, was the least preferred highway for seven of the respondents. Three others ranked it as their second-most disliked highway. Only one outlying group ranked Alligator Alley as being their third-most preferred, but two of the four in this group only ranked four highways. Alligator Alley was perceived as very drab, flat, natural, uniform and rural. It was perceived as fairly quiet, smooth, boring, unpleasant, clean, ordered, and with little traffic, police, or facilities. Clearly there are some common descriptors to both I-10 and Alligator Alley. Among these are clean, natural, rural, quiet, uniform, smooth, and ordered. The uncommon descriptors concentrate on Alligator Alley's drabness, flatness, and boringness. However, no consensus was reached on these descriptors for I-10. Only "unpleasant" stands out as a truly uncommon descriptor, compared to I-10's characterization as "pleasant." Unfortunately, "unpleasant" does little to increase our understanding of the difference between the two roads.

No consensus was reached in the word pairs describing Alligator Alley as: expensive/cheap, slow-paced/fast-paced, energy efficient/energy inefficient, ugly/beautiful, dangerous/safe, or old/new. The most common words contributing to the highway's unfavorable perception are: boring, flat, drab, inadequate facilities, unpleasant, open, ugly, dangerous, and uniform.

The Other Highways. Interstate-75, the Florida Turnpike, Interstate-4, Interstate-95, and US 27 were variously preferred by the respondents. I-75 was ranked as most preferred by four of the respondents (three of whom were engineers) and least preferred by four of the respondents (all of whom were users). Both the favorable and unfavorable responses noted that the Interstate is congested, but the positive respondents must have found solace in its quickness, safety, hilliness, and beauty. Negative responses concentrated on rough, artificial, noisy, and chaotic.

The Florida Turnpike averaged as the third most preferred highway, although again some disagreement among respondents was noted. Three respondents preferred it the most, three preferred it the least. Both groups did agree on a few adjectives: expensive, quick, fast-paced, clean, natural, rural, and heavily policed. The negative respondents disliked the Turnpike because it is congested and bounded. The positive respondents found it quick, smooth, and open. The discrepancy between bounded and open may arise from the different connotations the word pair may elicit. The Turnpike may be "open" with respect to a field-of-view, but its limited access may render it "bounded" to others.

Interstate-4 was most preferred by one user and least preferred by two engineers. In short, it elicited little comment. To the engineers it was seen as urban, artificial, unpleasant, and flat. The user, a car driver, found it quiet, natural, uniform, and vivid. More research is needed to describe this Interstate adequately.
Similarly, Interstate-95 was rather weak in its affective component for the respondents. One perceived it as most preferred, one as least preferred. Both found I-95 to be urban and artificial; to one respondent, an engineer, this either did not matter or was viewed as favorable.

I-95's rank average was very close to that of US 27's (mean = 3.60 and 3.68, respectively), however, US 27 elicited much stronger comment from the respondents. Two of the respondents preferred US 27 the most, considering it quiet, rural, natural, pleasant, interesting, clean and hilly. Five respondents considered it to be their second-most preferred highway. For twelve of the respondents, however, it was either the least favored (n=4), or the second least favored (n=8). They perceived the highway as congested, rough, old, and dangerous (possibly alluding to its direct access). The difference in perceptions was not related to the engineer-user group classification.

Activities Enjoyed

The "Looking at the Land" question was designed to be as unromantic as possible, without having to rely on an innocuous-sounding "Looking at the surroundings." Other activities were included primarily to anesthetize the respondents. Nevertheless, looking at the land was the most preferred activity while driving. Nineteen respondents enjoyed looking at the land "a great deal," seven "sometimes," and only one respondent replied "not at all." The response to this question has implications for the "Reading billboards and signs" query. Only one respondent enjoyed reading billboards and signs "a great deal," while sixteen responded "sometimes" and ten "not at all." (The results of this question are discussed below.)

The Perfect Highway

The abundance of billboards on our highways has irked at least one geographer from an aesthetic standpoint. However, the federal Department of Transportation has curtailed funding for billboard removal and easements on federally funded highways. This study indicates that there is some moderate stance preferred by both design engineers and users regarding billboards. Billboards should not interfere with looking at the land, a favorite pasttime for the respondents. And yet, the majority of the respondents enjoyed reading billboards and signs "sometimes."

The respondents were asked to consider their "perfect" highway when determining the amount of billboards they preferred. Surely if there were adequate sentiment for billboard removal it would show up in such a biased question. Yet only eight of the respondents favored no billboards. Eight more favored one or two at intersections only, a plan similar to that being tested on Virginia highways. Six preferred one or two every five miles, four preferred one or two per mile, and one respondent preferred three or more per mile. Thus, while there is some sentiment for no billboards, 70 percent of the respondents of this study preferred highways to have at least a few billboards.

Conclusion

Florida's modern four-lane highways tend to be evaluated as quiet, smooth, and safe. Seldom are they perceived as having too many, or too few police or facilities. Yet preferentially, highways may differ greatly. The roadbeds do not differ greatly, so one must infer that other factors, including the highway's environment, are the causes of preferential differences. Referring to Alligator Alley again, the low ranking of this highway cannot be explained for example as a function of traffic congestion. Alligator Alley was perceived by most as having light traffic. It seems to be the everglades
landscape, not Alligator Alley itself, which is perceived as boring and drab, despite its naturalness. Other of Florida's natural settings fared better by those groups who most often used the state's four-lane highways.

***

1. The author expresses thanks to Dr. Donald Patton, Florida State University, who offered comments on an earlier draft of this paper.


