Results of Highway Maintenance Survey

Executive Summary

The use of surveys to elicit public opinions and attitudes is not new to public institutions such as the South Carolina Department of Transportation (SCDOT). Public opinion surveys address many topics such as satisfaction with highway interchanges, needs assessment, traffic congestion, and highway planning issues including design, just to name a few. Though public opinion surveys concerning highway maintenance have been conducted in other states, this is the first of its type in South Carolina conducted by SCDOT. The primary focus of this survey was to elicit the public’s assessment of importance of highway maintenance programs in South Carolina, the public’s grade for highway maintenance activities, and the public’s assessment of how SCDOT funds should be allocated across highway maintenance activities.

In mid-2003, surveys were mailed to about 29,000 potential respondents living in South Carolina. The mailing list was purchased from InfoUSA®. About 3,600 completed surveys were returned, yielding a 12.7 percent response rate. Data were processed for analysis using standard verification techniques, and data processing was conducted using SPSS for Windows®.

The main body of the report presents the results of the survey for the state as a whole. The appendices provide the results by SCDOT’s service districts as seen in the map.

The illustrations that follow summarize the results. Respondents were asked to rate an assortment of maintenance activities in terms of the activity’s importance to the respondent. The mean importance ratings by maintenance activity category are shown in Illustration 1. The maintenance activities that are most important to South Carolinians are (i) bridges; (ii) signage; and (iii) highway surface, in that order. Least important is beautification activities.
Similarly, respondents were asked to assign a letter grade (“A”, “B”, “C”, “D”, or “F”) to the same set of maintenance activities. These results are shown in Illustration 2. Signage, which had received a high importance rating, also received a high grade (highest among the maintenance activity categories). Note that the two lowest grades were given to highway surface work and roadside work; both had high importance ratings.

Developing a problem score (combination of importance and grade) allows SCDOT to determine the value to the consumer for correcting or fixing a perceived problems. This research in no way identifies the causes for the perceived problems. Nor does the research focus on underlying causes for problems perceived by the consuming public. In other words, a high “problem score” for patching potholes would not suggest that poor maintenance attention is the cause of potholes needing to be patched. Further, potholes may be a symptom of a deeper, underlying problem associated with the soil under the roadway. Illustration 3 shows the problems scores by the maintenance activity categories. Four categories—Highway Surface, Roadside, Bridges, and Driveways—have notably higher problem scores than the remaining categories, and Highway Surface and Roadside are the highest. This would lead SCDOT to the conclusion that focusing maintenance activities in these two categories will be more positively received by South Carolinians than activities in any of the other categories.

This conclusion is affirmed by the results to the question of allocating maintenance dollars to maintenance categories (Illustration 4). South Carolinians would put about one-fifth of their “maintenance” budget toward pavement resurfacing and pavement patching. Bridges would use 15 percent of the “maintenance” budget.

Overall, SCDOT is maintaining South Carolina’s highways at a B level. South Carolinians perceive certain maintenance activities to be more important and, thereby, should receive greater attention than other maintenance activities. Focusing greater effort within the four maintenance categories of Highway Surface, Roadside, Bridges, and Driveways will likely result in South Carolinians being even more satisfied with maintenance activities throughout the state.

The research was conducted at The University of South Carolina by the Division of Research of The Moore School of Business (Principal Investigator: Sandra J. Teel, 803-777-2510; steel@moore.sc.edu).
For further information, contact Terry Swygert at SCDOT (803-737-6652; swygertl@scdot.org).