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SD2002-07-X



# SDDOT 2002 Statewide Customer Survey



## Study SD2002-07 Executive Summary

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16. Abstract <p>This report summarizes, by user segment and transportation region, perceptions of the South Dakota Department of Transportation's performance in delivering 18 key products and services of importance to citizens across South Dakota. It is the third in a series of surveys that tracks and monitors attitudes and needs among SDDOT customers. This is the first in the series of surveys that gathers data from all key user segments: citizens, leisure travelers, farmers, emergency vehicle operators and carriers and shippers. A subset of surveyed legislators (60) is treated as a sixth segment. The study includes opinions of 1,182 South Dakota residents representing the six user segments.</p> <p>Key objectives that guided both the qualitative (focus group) and quantitative (telephone interview) components of this research were to: assess the opinions of the public and key customer groups regarding the composition, importance, and quality of the Department of Transportation's key products and services; assess the Department's progress in addressing customer concerns through development and execution of its strategic plan; and identify specific actions the Department can take to improve its performance and the perception by the public and key customer groups regarding that performance.</p> <p>By assessing the public's opinions of the SDDOT's performance and understanding its significance, this research provides the framework for development of a management action plan for Department response.</p>			
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# TABLE OF CONTENTS

<b>DISCLAIMER</b>	<b>II</b>
<b>ACKNOWLEDGEMENTS</b>	<b>II</b>
<b>TECHNICAL REPORT STANDARD TITLE PAGE</b>	<b>III</b>
<b>TABLE OF CONTENTS</b>	<b>V</b>
<b>LIST OF FIGURES</b>	<b>VI</b>
<b>LIST OF TABLES</b>	<b>VI</b>
<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>PURPOSE OF STUDY</b>	<b>1</b>
<b>OBJECTIVES</b>	<b>1</b>
<b>RESEARCH APPROACH</b>	<b>2</b>
Qualitative—Focus Groups	2
Quantitative—Telephone Interviews	2
<b>SIGNIFICANT FINDINGS</b>	<b>3</b>
<b>CONCLUSIONS</b>	<b>7</b>
<b>RECOMMENDATIONS</b>	<b>8</b>

## LIST OF FIGURES

FIGURE 1: CORRELATION RELATIONSHIP	5
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## LIST OF TABLES

TABLE 1: FOCUS GROUP PARTICIPATION	2
TABLE 2: PERFORMANCE MEASURE SUMMARY	3

# EXECUTIVE SUMMARY

## PURPOSE OF STUDY

The South Dakota Department of Transportation (SDDOT) conducted statewide customer satisfaction assessments in the spring of 1997 and again in the fall of 1999. Opinions and concerns of the general public and the state legislature formed the foundation upon which the Department's 2001 Strategic Plan was shaped. The heightened awareness of end user satisfaction helped many Departments formulate user based performance measures.

Two years have passed since the last assessment. Many changes have been fully or partially implemented in response to the 1999 assessment. An underpinning to good strategic plan implementation and sound management practice is the opportunity for a strong feedback loop—both internally as relates to the organizations health and performance and externally as to its measured impact on the end user of SDDOT products and services.

## OBJECTIVES

The objectives of this study were to:

- Assess the opinions of the public and key customer groups regarding the composition, importance, and quality of the Department of Transportation's key products and services;
- Assess the Department's progress in addressing customer concerns through development and execution of its strategic plan; and
- Identify specific actions the Department can take to improve its performance and its perception by the public and key customer groups regarding that performance.

This study sought answers to a number of key questions. Primary but not exhaustive is the list below:

- Have perceptions of the Department's performance changed significantly? If so, how?
- How has the Department responded to issues raised in the prior surveys? Have the responses been effective? Are more proactive or effective responses possible?
- Do key customer segments—such as emergency vehicle operators, commercial truckers, the agricultural industry, tourists, and others—perceive the Department's services and performance differently from the population at large? If so, how does the Department need to respond to differing end user needs?
- Do public perceptions accurately distinguish between services provided by the Department of Transportation and services provided by other public and private entities?
- Have new issues emerged that are important to the legislature, the general public, or key customer segments?

## RESEARCH APPROACH

As previously stated, the process and format of the 2002 research study builds upon past customer research. A key difference of the current research effort is the attention devoted to extending understanding of customer perceptions and satisfaction beyond the general public—additionally examining requirements of other primary DOT user groups—farmers, leisure travelers, emergency vehicle operators, carriers and shippers.

A key strategic question this research seeks to answer is:

- How best can the SDDOT respond to diverse and unique customer needs while still maintaining a high level of quality service to the public at large?

### QUALITATIVE—FOCUS GROUPS

Examination of satisfaction and performance measures after a two year period for implementation of action items identified in the 1999 study provides one reliable yardstick for measuring progress to date that is linked to the DOT's implementation of the 2001 Strategic Plan.

MarketLine recruited 119 individuals between March 20th and March 29th. Seventy-four percent (88 individuals) participated in one of ten sessions conducted in the cities of Aberdeen, Rapid City, Pierre, and Sioux Falls.

**Table 1: Focus Group Participation**

Date	Market	Segment				Total
		Citizen/Leisure	Farmer	EVO	Carrier/Shipper	
April 8	Aberdeen	11	11		6	28
April 9	Rapid City	11		7		18
April 10	Pierre	9	7		7	23
April 11	Sioux Falls	9		10		19
	Total	40	18	17	13	88

### QUANTITATIVE—TELEPHONE INTERVIEWS

Interviews were conducted at MarketLine Research using a computer-aided telephone interviewing (CATI) system. The five primary user segments were called during the period May 8<sup>th</sup> through June 28<sup>th</sup>. The average survey length was just under 25 minutes.

The key segments surveyed were:

- Citizens—people who have lived in South Dakota six or more months;
- Leisure travelers—people who have traveled by car 75 miles or more from home on a trip for leisure purposes and stayed at least one night away from home on the trip;
- Farmers—people for whom agriculture has been their primary occupation for a year or more and currently active in agriculture;
- Emergency vehicle operators—people who currently drive an emergency vehicle and who have driven an emergency vehicle for six or more months;



- Carriers/shippers—people who currently drive a commercial vehicle to haul goods or freight; or companies who ship goods or freight by truck only;
- Legislators—Legislators (60) were again surveyed as in 1999, and treated as a sixth segment. They evaluated the same set of products and services viewed as important to citizens.

All participants had been South Dakota residents for 6 months or more.

## SIGNIFICANT FINDINGS

Survey results suggest the six customer segments are more similar than dissimilar in how they view and value the roadway.

1. Dramatic changes in most all performance satisfaction measures have occurred since the 1999 survey period. Changes are predominately positive and primary indicators such as overall satisfaction with DOT have changed significantly.
2. Table 2 summarizes the significant changes in user perceptions of the Department’s performance. Statistically significant changes have occurred in seven of fourteen performance areas.

**Table 2: Performance Measure Summary**

Key Performance Measures		Average Response			Direction	Significant <sup>3</sup>
		2002	1999	1997		
Service <sup>1</sup>	Overall Satisfaction with DOT	7.66	6.84		↑	•
	Satisfaction—delivery of service	7.61	Not asked			
	Satisfaction—snow & ice removal	7.60	7.12		↑	•
	Satisfaction—timeliness of removal	7.53	Not asked			
	Satisfaction—keeping citizens informed	6.60	6.42		↑	•
	Satisfaction—alerting citizens of delays	6.37	5.97		↑	•
	Satisfaction—ease of information access	6.80	6.70		↑	•
Image Perception <sup>2</sup>	Keeps delays to minimum	3.87	3.73	3.67	↑	•
	Closes long stretches when not necessary	2.68	2.63	2.68	↔	
	Considers and values public opinion	3.70	3.62	3.82	↔	
	Designs safe highways	4.25	4.19	4.39	↔	
Driving Conditions	Work zones with no visible work <sup>4</sup>	67%	65%		↔	
	Length of delays (% saying have increased)	10%	68%		↑	•
	Tolerance for delays <sup>5</sup>	77%	71%		↔	

<sup>1</sup>All 10-point scales: 10 = highest satisfaction 1 = lowest satisfaction  
<sup>2</sup>All 5-point scales: 5 = Strongly agree 1 = Strongly disagree  
<sup>3</sup>Statistically significant change at .05  
<sup>4</sup>Percent saying 'almost always' or 'always'  
<sup>5</sup>Percent rating as tolerable 1,2,3 or 4 on 10-point scale where '1' = 'really don't mind'

Increased customer satisfaction, as reflected in the above performance measures, is closely associated with the SDDOT’s proactive emphasis on integrating customer satisfaction goals into its 2001 and 2002 Strategic Plans. Focus on delivery of core services—such as smooth roadways, clearly visible pavement markings and signs, timely and effective winter maintenance, and adequate roadway shoulders—coupled with attention to strengthened communications with the traveling public were

cornerstones of the plan's customer satisfaction goals. End user feedback strongly indicates significant performance accomplishments in all these areas.

3. The transportation consumer demonstrates a balanced appreciation for the Department's need to service the basics and respond to more tangential aspects of maintaining a complete transportation infrastructure. While very interested in the products and services that directly daily impact their daily travel experience, users from all segments consistently place high value and importance in providing and planning for the transportation needs of both today and tomorrow.
4. Consensus exists statewide among key user segments on what products and services are of the highest importance. The data indicate users are most interested in those products and services that deliver an immediate travel benefit in terms of a comfortable, efficient and safe means of transporting people or freight from one location to the next. They are most interested in basic services.

The two most highly ranked (1st, 2nd or 3rd out of 18) product and service areas in perceived importance by all users encompass the Department's most fundamental aspects of service delivery:

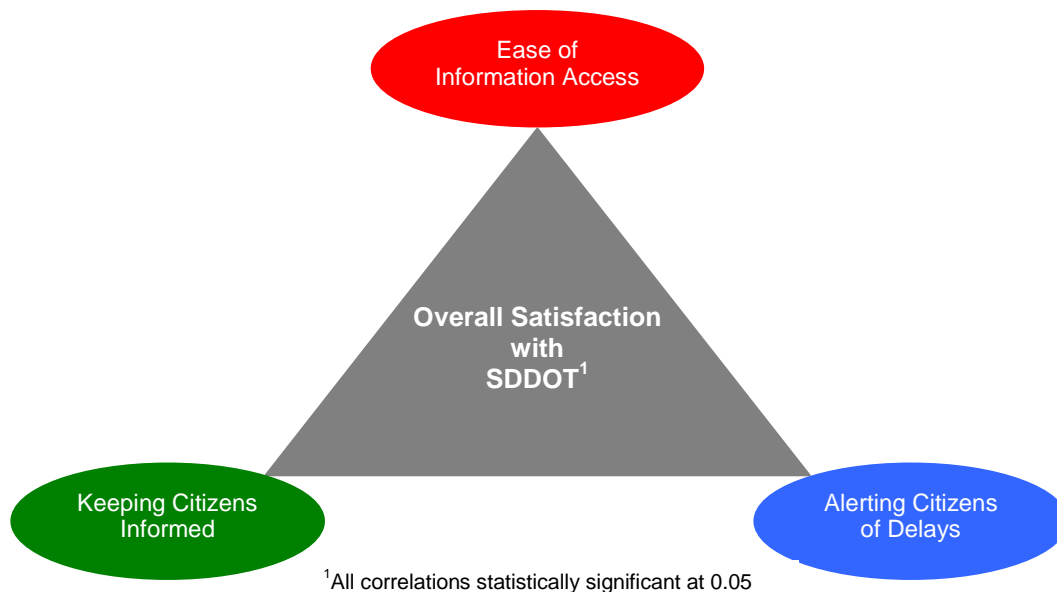
- Providing for a clean and safe driving surface;
- Road and bridge maintenance.

Consistently, products and services relating to the roadway itself were of the highest importance to all six segments. Perceived importance of DOT products and services declines as the direct relationship to the roadway surface weakens. Plowing, salting and sanding of snow-covered roadways was of the highest importance (ranked 1st, 2nd or 3rd) by 68% of all customers whereas building and maintaining roadside rest areas and providing travel materials were ranked 1st, 2nd or 3rd by the fewest respondents—less than 2%.

5. Current SDDOT products and services meet expectations of all primary user segments. Satisfaction with all 18 was above midpoint of the rating scales.
6. Users from all segments realize the basics are not enough. Strong understanding and support exists for the strategic, longer-term investments necessary to plan for and meet tomorrow's transportation needs. Two-thirds or more of all respondents are positive toward areas of added DOT investment, the only exception being investment in support of passenger air travel and airfreight within South Dakota.

Users were consistent in their evaluation of 'investment areas', that is, where SDDOT should commit resources and funds. They were particularly supportive of those investments aimed at "improving heavily traveled routes between cities" and "state aid to local governments for road construction and maintenance". This was very consistent with their product and service evaluations that placed utmost importance on building and maintaining roads and bridges.

As a group, emergency vehicle operators (EVOs) are significantly more supportive than the general population when it comes to DOT financial investments in all added programs that provide for safer travel and greater local access.



**Figure 1: Correlation Relationship**

7. As was first observed in 1999, DOT efforts and associated performance in the area of citizen communications is strongly correlated to citizen perceptions of overall SDDOT Department performance. However, individual segments do at times differ in perceptions when compared to the general population of DOT customers. These differences merit attention and in some cases individualized response. At a minimum these differences in needs, attitudes and performance assessment dictate a need for more customized delivery of DOT messages to user segments.
8. Preferences related to information content and sources varied significantly between customer segments. A significant shift in preference for personal technology tools for staying in touch by cell phones and computers was observed when compared against surveyed preferences and use in 1999. This change affords the DOT an opportunity for cost-effective and personalized avenues for communicating with its diverse customer base.
9. Regional differences in perceptions of DOT performance do exist. Although differences are far fewer than similarities in how residents of the four transportation regions perceive DOT efforts and services, an understanding of significant differences has value to both the strategic planning process and day-to-day service delivery.

Significant differences in product & service perceptions include:

- Pierre Region is most typical of all regions, with no significant variance of product positions with positioning of all region response.
- To Mitchell Region residents, plowing, salting and sanding is of significantly higher importance compared to that of all regions.
- Mitchell Region residents expressed significantly higher overall satisfaction with the job DOT is doing compared to that of all regions.
- Aberdeen Region residents showed the greatest 1999 to 2002 improvement (12%) in satisfaction with snow and ice removal of any region.
- Aberdeen Region residents expressed significantly lower satisfaction (although very satisfied) with DOT efforts at maintaining roads and bridges compared to all regions.

- Rapid City Region residents are significantly less satisfied with efforts to provide travel information than are residents in all regions.
- Views of billboard regulation vary from region to region. Mitchell Region expresses a higher satisfaction with billboard regulation. Satisfaction with billboard regulation generally exceeds perceived importance in all regions except Rapid City Region.
- Rapid City Region places higher importance but expresses lower satisfaction with efforts to regulate.

Significant differences in support of financial investment programs include:

- Mitchell Region residents are less supportive of DOT financial investment in improvements to air passenger travel and air freight within South Dakota.

10. Segment differences in perceptions of DOT performance are more pervasive than regional differences. Key differences among segments with the general population at large are:

- The Citizen segment assigns significantly less importance to mowing and removing overgrowth than does the general population.
- The Leisure traveler segment assigns significantly higher importance to removing roadway debris, providing roadway features and installing road signage than does the general population.
- Leisure travelers are significantly more supportive of financially investing in improvements to air passenger travel and air freight within the state.
- The Legislative segment varies the most. It assigns significantly more importance to building and maintaining roadside rest areas, installing road signage, providing for wetland replacement, and managing traffic than does the general population. This segment expresses significantly higher satisfaction with provision of landscaped roadways, and travel information.
- Financially investing in railroad crossing arms, signals, signage, and materials for smooth track crossings is of significantly less importance to legislators. Legislators are significantly less supportive of providing funds to local governments for road construction and maintenance. They are also significantly more supportive of financially investing in developing a five-year plan for transportation throughout the state.
- The farm segment views several products and services with significantly less importance: plowing, salting and sanding roadways, the provision for roadway features, travel information and wetland replacement, and the posting of speed zones.
- Farmers are significantly more opposed to financially investing in supporting air passenger travel and air freight within the state. They are also significantly less supportive of financially investing in improving heavily traveled routes between cities for better movement of freight and travelers.
- The EVO segment assigns significantly higher importance to SDDOT's job of maintaining roads and bridges, plowing, sanding and salting of snow-covered roadways, and provision for roadside care.

- Emergency vehicle operators are significantly more supportive of providing funds to local governments for road construction and maintenance. They are significantly more supportive of financially investing in improving heavily traveled routes between cities for better movement of freight and travelers. EVOs are significantly more supportive of financially investing in educating the public about traveling through railroad crossing and roadwork zones.
- Carriers and shippers express significantly lower satisfaction with what is of significantly higher importance to them, namely building roads and bridges and maintaining the roads and bridges—the basic infrastructure. They also express significantly lower satisfaction with the installation of road signage than does the general population. The Carrier/Shipper segment views provision for wetland replacement as significantly less important compared with how the general population views this service.

## CONCLUSIONS

Conclusions of the study may be summarized:

1. SDDOT needs to continue to focus attention on maintaining and improving the transportation infrastructure in order to provide the level of quality that key user segments expect and find of the utmost importance. Namely, deliver the basics!
2. Perceptions of the SDDOT's performance have changed significantly for the better. With key performance indicators suggesting a significant turnaround in performance since the 1999 tracking study, it is critical to continued success that management identifies all underlying contributing factors both direct and indirect and communicates findings throughout the Department. Identified factors should be incorporated into strategic plan updates and be supported by means of continued evaluation.
3. Areas for improvement still exist. For example, more effective response to the perception of two-thirds of all customers that they almost always or always travel through work zones with no visible signs of work needs to be addressed.
4. Customer expectations as measured by the importance assigned to the various products and services are high. In some instances, expectations are extremely high among particular segments depending upon the product or service orientation. For example, safety related plowing, salting and sanding of roadways receives on average a '9.5' rating of importance on a 10-point scale by emergency vehicle operators.

Further performance improvements may not be operationally feasible or practical from a cost basis. In these cases, a strong proactive communications program aimed at balancing importance-related expectations and satisfaction becomes critical to continued improvements in customer perceptions and satisfaction ratings.

5. The Department needs to respond to observed variations in preference for and use of information sources between segments. This presents opportunities for better-targeted DOT communications. Sufficient differences in driving behavior, needs, attitudes, and perceptions of customer segments dictates need for more customized delivery of DOT messages.

6. Although user segments were found to be more similar than dissimilar, sufficient differences were identified that provide for useful segment profiles leading to a better understanding of attitudes and needs. A number of generalizations are possible:
  - Legislators are the most unique segment—often more supportive and sometimes more critical in their assessments of DOT programs.
  - EVOs tend to place higher importance on many DOT products and services and programs directly or indirectly relating to roadway safety.
  - Farmers do not assign high importance to posting speed zones and providing travel information.
7. During the course of the 2002 study, a very limited number of new issues surfaced that were of significance to particular customer. Findings of focus group research and telephone interviewing were broadly consistent with respect to these issues. Most of the issues proved to be of minor concern, with the possible exception of dead animal removal from the roadways, which appears to negatively reflect on the DOT. There is also user confusion with agencies as to where the responsibility lies for the timely removal.

## **RECOMMENDATIONS**

Based on the findings and conclusions of this study, the researchers recommend the following to the South Dakota Department of Transportation:

1. The SDDOT should develop a department-wide targeted media relations and communication plan. In addition to addressing the informational needs of the general population, the plan should identify opportunities and strategies to extend reach to the department's specialized user groups, i.e. carriers and shippers of freight, emergency vehicle operators, farmers, leisure travelers and legislative users.
2. The SDDOT should outline a strategy for the more expanded use of variable message signs to provide travel information (real-time where and when feasible), especially targeted to the leisure travelers and carrier and shipper user groups. Applications having special value would be for construction zone information and event routing.
3. The SDDOT should develop work plans for incident management response to accidents and events that leverage existing relationships with statewide emergency service responders. The goal would be to collectively work toward improved highway safety through more effective interagency coordination.
4. The SDDOT should undertake an informational program that educates the public regarding the need for and importance of the role that the SDDOT plays in protection of and preservation of South Dakota's natural resources.
5. The SDDOT should formalize a communications feedback system that harnesses the broad daily presence of hundreds of statewide emergency responders for the purpose of achieving more timely reporting of road problems, situations requiring highway maintenance attention, malfunctioning equipment and need for roadway clearance of debris, particularly dead animals.