

July 2011

# *A Report Card From Missourians - 2011*

## **Appendix A: I-S Analysis**

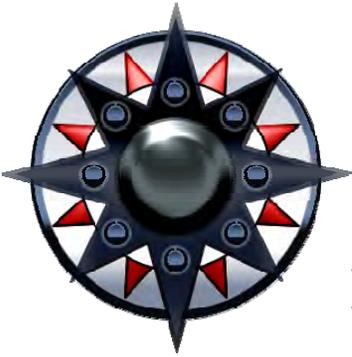
*Submitted to*

*The Missouri Department of  
Transportation*



Prepared by ETC Institute and  
Missouri Department of  
Transportation





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# Importance-Satisfaction Analysis

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### Overview

Today, community leaders have limited resources which need to be targeted to activities that are of the most benefit to their residents. Two of the most important criteria for decision making are (1) to target resources toward services of the highest importance to residents; and (2) to target resources toward those services where residents are the least satisfied.

The Importance-Satisfaction (IS) rating is a unique tool that allows public officials to better understand both of these highly important decision making criteria for each of the services they are providing. The Importance-Satisfaction rating is based on the concept that state and county governments will maximize overall resident satisfaction by emphasizing improvements in those service categories where the level of satisfaction is relatively low and the perceived importance of the service is relatively high.

### Methodology

The rating is calculated by summing the percentage of responses for items selected as the first, second, and third most important services for MoDOT to emphasize over the next two years. This sum is then multiplied by 1 minus the percentage of respondents that indicated they were positively satisfied with MoDOT's performance in the related area (the sum of the ratings of 4 and 5 on a 5-point scale excluding "don't knows"). "Don't know" responses are excluded from the calculation to ensure that the satisfaction ratings among service categories are comparable. [IS=Importance x (1-Satisfaction)].

**Example of the Calculation.** Respondents were asked to identify the services they thought are most important for MoDOT to emphasize over the next two years. Approximately thirty-six percent (35.8%) of residents ranked keeping the surface of major highways in good condition as the most important service for MoDOT to provide.

With regard to satisfaction, keeping the surface of major highways in good condition was ranked 8th overall with approximately sixty-one percent (61.3%) rating keeping the surface of major highways in good condition as a “4” or a “5” on a 5-point scale, excluding “don't know” responses. The I-S rating for keeping the surface of major highways in good condition was calculated by multiplying the sum of the most important percentages by 1 minus the sum of the satisfaction percentages. In this example, 35.8% was multiplied by 38.7% (1-0.613). This calculation yielded an I-S rating of **0.1404**, which ranked second out of the 12 service categories. This rating in 2010 was .1560 and was rated a “High Priority”, and in 2009 the rating was .2295 and was considered a “Very High Priority”. Although this still remains a high priority, it is clear that great progress has been made in regards to this item since 2009. It is the third year in a row that the IS rating for this category has decreased.

The maximum rating is 1.00 and would be achieved when 100% of the respondents select an activity as one of their top choices for MoDOT to provide and 0% indicate that they are positively satisfied with the delivery of the service.

The lowest rating is 0.00 and could be achieved under either one of the following two situations:

- if 100% of the respondents were positively satisfied with the delivery of the service
- if none (0%) of the respondents selected the service as one of the four most important services for MoDOT to provide.

## Interpreting the Ratings

Ratings that are greater than or equal to 0.20 identify areas that should receive significantly more emphasis over the next two years. Ratings from .10 to .20 identify service areas that should receive increased emphasis. Ratings less than .10 should continue to receive the current level of emphasis.

- Definitely Increase Emphasis ( $IS \geq 0.20$ )
- Increase Current Emphasis ( $0.10 \leq IS < 0.20$ )
- Maintain Current Emphasis ( $IS < 0.10$ )

The results for MoDOT are provided on the following page.

# Importance-Satisfaction Rating

## Missouri Department of Transportation

### Satisfaction With MoDOT Efforts to Provide Highway Services

Category of Service	Most Important %	Most Important Rank	Satisfaction %	Satisfaction Rank	Importance-Satisfaction Rating	I-S Rating Rank
<b>High Priority (IS .10-.20)</b>						
Keep surface of other state highways in good condition	36%	2	51%	12	0.1746	1
Keep surface of major highways in good condition	36%	1	61%	8	0.1385	2
Keep bridges in good condition	26%	3	59%	10	0.1066	3
<b>Medium Priority (IS &lt;.10)</b>						
Support development of alternative forms of transportation	20%	4	52%	11	0.0946	4
Keep shoulders on highways in good condition	17%	7	62%	7	0.0654	5
Remove debris from highways	19%	5	69%	5	0.0601	6
Minimize congestion on highways	15%	10	61%	9	0.0581	7
Pick up litter & trash along highways	16%	8	65%	6	0.0536	8
Provide visible roadside & centerline striping on highways	15%	9	69%	4	0.0459	9
Manage snow & ice on highways	18%	6	76%	2	0.0443	10
Mow & trim trees, grass & weeds along highways	11%	11	70%	3	0.0330	11
Provide signage along highways that is easy to understand	6%	12	84%	1	0.0100	12

**Note:** The I-S Rating is calculated by multiplying the "Most Important" % by (1-'Satisfaction' %)

**Most Important %:**

The "Most Important" percentage represents the sum of the first, second, third and fourth most important responses for each item. Respondents were asked to identify the items they thought should receive the most emphasis over the next two years.

**Satisfaction %:**

The "Satisfaction" percentage represents the sum of the ratings "4" and "5" excluding 'don't knows.' Respondents ranked their level of satisfaction with the each of the items on a scale of 1 to 5 with "5" being very satisfied and "1" being very dissatisfied.

## **Importance-Satisfaction Matrix Analysis**

The Importance-Satisfaction rating is based on the concept that public agencies will maximize overall customer satisfaction by emphasizing improvements in those areas where the level of satisfaction is relatively low and the perceived importance of the service is relatively high. ETC Institute developed an Importance-Satisfaction Matrix to display the perceived importance of major services that were assessed on the survey against the perceived quality of service delivery. The two axes on the matrix represent Satisfaction (vertical) and relative Importance (horizontal).

The I-S (Importance-Satisfaction) matrix should be interpreted as follows.

- Continued Emphasis (above average importance and above average satisfaction). This area shows where MoDOT is meeting customer expectations. Items in this area have a significant impact on the customer's overall level of satisfaction. MoDOT should maintain (or slightly increase) emphasis on items in this area.
- Exceeding Expectations (below average importance and above average satisfaction). This area shows where MoDOT is performing significantly better than customers expect MoDOT to perform. Items in this area do not significantly affect the overall level of satisfaction that residents have with MoDOT services. MoDOT should maintain (or slightly decrease) emphasis on items in this area.
- Opportunities for Improvement (above average importance and below average satisfaction). This area shows where MoDOT is not performing as well as residents expect MoDOT to perform. This area has a significant impact on customer satisfaction, and MoDOT should DEFINITELY increase emphasis on items in this area.
- Less Important (below average importance and below average satisfaction). This area shows where MoDOT is not performing well relative to MoDOT's performance in other areas; however, this area is generally considered to be less important to residents. This area does not significantly affect overall satisfaction with MoDOT services because the items are less important to residents. The agency should maintain current levels of emphasis on items in this area.

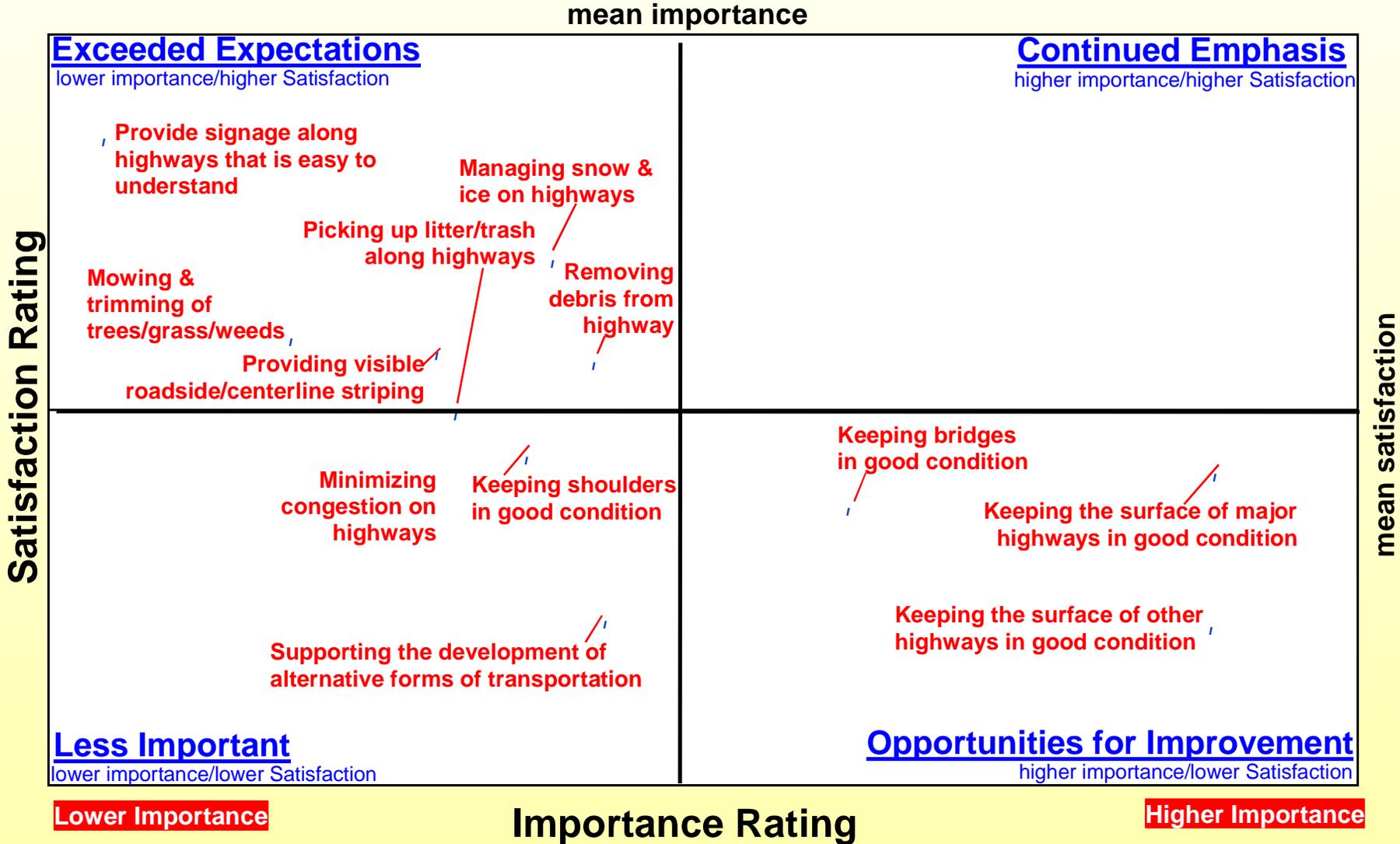
The matrix showing the results for MoDOT are provided on the following page.

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## Importance-Satisfaction Assessment Matrix

### -Satisfaction With MoDOT Efforts to Provide Highway Services-

(points on the graph show deviations from the mean importance and Satisfaction ratings given by respondents to the survey)



Source: ETC Institute (2011)