

Section 3:
***Importance-Satisfaction
Analysis***

Importance-Satisfaction Analysis

TDOT 2006 Customer Satisfaction Survey

Overview

Importance-Satisfaction (IS) Analysis is a tool that can help TDOT leaders evaluate the priority that should be placed on transportation issues in Tennessee. Importance-Satisfaction Analysis is based on the concept that TDOT will maximize the impact that new investments have on customer satisfaction by emphasizing improvements in those areas where the level of satisfaction is relatively low and the perceived importance of the issue is relatively high.

Importance-Satisfaction RATING.

Methodology. The Importance Satisfaction Rating is calculated by summing the percentage of respondents who selected an item as one of the most important issues to emphasize. This sum is then multiplied by 1 minus the percentage of respondents who indicated they were satisfied with TDOT's performance in the 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. $[IS=Importance \times (1-Satisfaction)]$.

The maximum rating is 1.00 and would be achieved when 100% of the respondents select an issue as one of their top choices to emphasize and 0% indicate that they are satisfied with TDOT's performance.

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

- if 100% of the respondents were satisfied
- if none (0%) of the respondents selected the issue as one of the most important areas for to emphasize

Interpreting the Ratings. Ratings that are greater than or equal to 0.20 identify areas that residents and elected officials generally think 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 IS ratings for the resident and elected official surveys are provided on the following pages.

Importance-Satisfaction Rating

Tennessee Department of Transportation - 2006

OVERALL - Residents

Category of Service	Most Important %	Most Important Rank	Satis %	Satis Rank	Importance-Satisfaction Rating	I-S Rating Rank
High Priority (IS = .10 - .20)						
Minimizing congestion on highways in urban areas	26%	3	45%	21	0.1430	1
Surface of Interstate highways in good condition	31%	2	62%	15	0.1178	2
Highway road striping, visible in wet weather	25%	4	54%	19	0.1150	3
Surface of other state highways in good condition	31%	1	55%	19	0.1395	4
Medium Priority (IS < .10)						
Alternative modes of transportation along highways	14%	8	33%	22	0.0938	5
Roadway striping on highways, visible at night	22%	5	63%	14	0.0814	6
Water drains quickly from highways during storms	15%	7	57%	18	0.0645	7
Adequate lighting at Hwy. interchanges-rural areas	13%	10	54%	20	0.0598	8
Providing park and ride facilities	10%	15	41%	21	0.0590	9
Removing debris from highways	18%	6	71%	10	0.0522	10
Shoulders on highways in good condition	14%	9	68%	11	0.0448	11
Minimizing congestion on highways in rural areas	11%	13	61%	16	0.0429	12
Picking up trash/litter along highways	12%	11	66%	13	0.0408	13
Keeping bridges in good condition	11%	12	75%	7	0.0275	14
Mowing/trimming trees/grass/weeds along highways	9%	16	72%	9	0.0252	15
Removing snow/ice along highways	10%	14	78%	2	0.0220	16
Maintaining landscaping along highways	5%	20	60%	17	0.0200	17
Adequate lighting at Hwy. interchanges-urban areas	6%	18	67%	12	0.0198	18
Keeping guardrails in good condition	7%	17	73%	8	0.0189	19
Signs on highways are easy to see	6%	19	78%	4	0.0132	20
Keeping rest areas clean	4%	22	76%	6	0.0096	21
Roadway striping on highways, visible during day	4%	21	78%	1	0.0088	22
Signs are easy to understand	4%	23	78%	3	0.0088	23
Rest areas accessible to physically disabled	2%	24	76%	5	0.0048	24

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 Rating

Tennessee Department of Transportation - 2006

OVERALL - Elected Officials

Category of Service	Most Important %	Most Important Rank	Satisfaction %	Satisfaction Rank	Importance-Satisfaction Rating	I-S Rating Rank
<u>High Priority (IS .10-.20)</u>						
Adequate lighting at Hwy. interchanges-rural areas	25%	6	45%	22	0.1375	1
Minimizing congestion on highways in urban areas	25%	5	48%	21	0.1300	2
Highway road striping, visible in wet weather	26%	4	55%	20	0.1170	3
<u>Medium Priority (IS <.10)</u>						
Surface of Interstate highways in good condition	35%	1	73%	7	0.0945	4
Roadway striping on highways, visible at night	26%	3	65%	16	0.0910	5
Surface of other state highways in good condition	31%	2	74%	11	0.0806	6
Picking up trash/litter along highways	19%	8	62%	18	0.0722	7
Water drains quickly from highways during storms	19%	9	64%	17	0.0684	8
Mowing/trimming trees/grass/weeds along highways	20%	7	67%	15	0.0660	9
Shoulders on highways in good condition	15%	12	69%	14	0.0465	10
Alternative modes of transportation along highways	8%	16	42%	24	0.0464	11
Removing debris from highways	16%	10	74%	10	0.0416	12
Keeping bridges in good condition	16%	11	75%	9	0.0400	13
Providing park and ride facilities	5%	19	43%	23	0.0285	14
Minimizing congestion on highways in rural areas	9%	14	70%	13	0.0270	15
Adequate lighting at Hwy. interchanges-urban areas	9%	15	72%	12	0.0252	16
Maintaining landscaping along highways	6%	18	60%	19	0.0240	17
Removing snow/ice along highways	13%	13	87%	1	0.0169	18
Keeping guardrails in good condition	8%	17	81%	8	0.0152	19
Roadway striping on highways, visible during day	5%	20	84%	5	0.0080	20
Signs on highways are easy to see	4%	21	84%	4	0.0064	21
Rest areas accessible to physically disabled	3%	22	86%	2	0.0042	22
Keeping rest areas clean	2%	23	83%	6	0.0034	23
Signs are easy to understand	2%	24	85%	3	0.0030	24

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 Rating

Tennessee Department of Transportation - 2006

Transportation Services - Residents

Category of Service	Most Important %	Most Important Rank	Satisfaction %	Satisfaction Rank	Importance-Satisfaction Rating	I-S Rating Rank
<u>Very High Priority (IS >-.20)</u>						
Availability of public transportation	34%	1	25%	8	0.2550	1
<u>High Priority (IS .10-.20)</u>						
Avail. of public transportation-elderly/disabled	26%	2	36%	5	0.1664	2
Frequency of public transportation	21%	4	22%	9	0.1638	3
Pedestrian facilities/sidewalks along highways	23%	3	36%	6	0.1472	4
Biking facilities/lanes along highways	19%	6	28%	7	0.1368	5
<u>Medium Priority (IS <.10)</u>						
Availability of recreational trails/paths	16%	7	59%	2	0.0656	6
Services provided by HELP trucks	20%	5	69%	1	0.0620	7
Availability of passenger air services	11%	8	49%	3	0.0561	8
Quality of the State's freight rail services	6%	9	37%	4	0.0378	9

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.

The Importance-Satisfaction matrix is based on the concept that TDOT will maximize overall 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 issues that were assessed on the survey against satisfaction with TDOT's performance in the area. 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 TDOT is meeting expectations. Items in this area have a significant impact on overall satisfaction. TDOT should maintain (or slightly increase) emphasis on items in this area.
- *Exceeding Expectations (below average importance and above average satisfaction).* This area shows where TDOT is performing significantly better than expected. Items in this area do not significantly affect the overall level of satisfaction. TDOT 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 TDOT is not performing as well as residents expect the agency to perform. This area has a significant impact on satisfaction, and TDOT should DEFINITELY increase emphasis on items in this area.
- *Less Important (below average importance and below average satisfaction).* This area shows where TDOT is not performing well relative TDOT'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 because the items are less important. TDOT should maintain current levels of emphasis on items in this area.

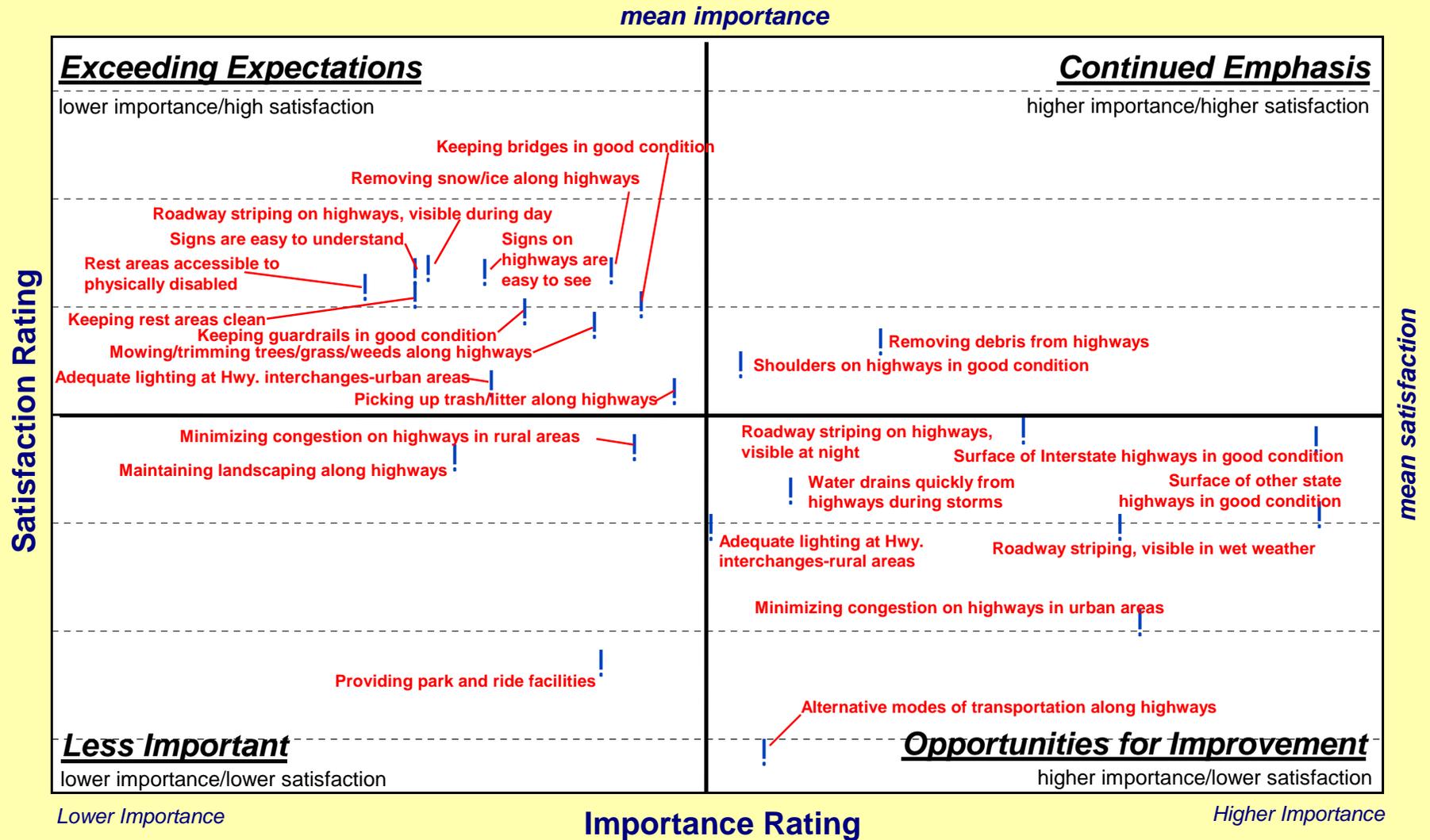
Matrices showing the results for TDOT are provided on the following pages.

2006 TDOT RESIDENT Survey

Importance-Satisfaction Assessment Matrix

-Overall-

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



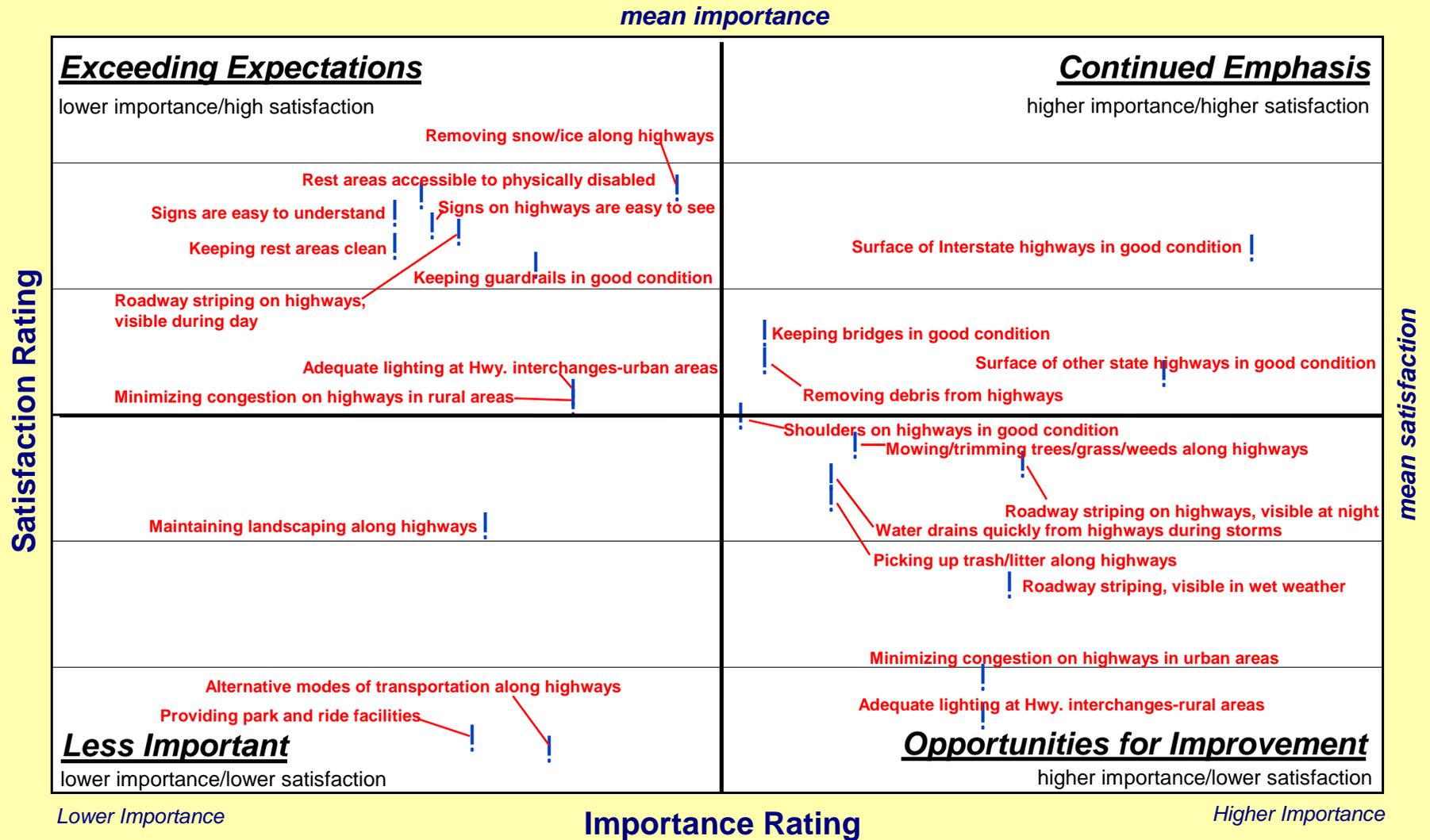
Source: ETC Institute (TDOT 2006 RESIDENT Survey)

2006 TDOT ELECTED OFFICIAL Survey

Importance-Satisfaction Assessment Matrix

-Overall-

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



Source: ETC Institute (TDOT 2006 ELECTED OFFICIAL Survey)

2006 TDOT RESIDENT Survey

Importance-Satisfaction Assessment Matrix

-Other Transportation (asked of residents only)-

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

mean importance

<u>Exceeding Expectations</u>		<u>Continued Emphasis</u>	
lower importance/high satisfaction	! <i>Services provided by HELP trucks</i>	higher importance/higher satisfaction	
<i>Availability of recreational trails/paths !</i>			
<i>Availability of passenger air services !</i>			
! <i>Quality of the State's freight rail services</i>	! <i>Avajl. of public transportation-elderly/disabled</i>	! <i>Pedestrian facilities/sidewalks along highways</i>	<i>mean satisfaction</i>
<i>Biking facilities/lanes along highways !</i>	<i>Availability of public transportation !</i>	! <i>Frequency of public transportation</i>	
<u>Less Important</u>		<u>Opportunities for Improvement</u>	
lower importance/lower satisfaction		higher importance/lower satisfaction	
<i>Lower Importance</i>	Importance Rating	<i>Higher Importance</i>	

Source: ETC Institute (TDOT 2006 RESIDENT Survey)