Department of Transportation and Public Works

2005 Customer Satisfaction Survey Provincial Highway System

Highlights Report

The 2005 Customer Satisfaction Survey - Provincial Highway System was conducted by the Marketing Research Centre for the Department of Transportation and Public Works.

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2005 Customer Satisfaction Survey - Provincial Highway System

The Nova Scotia Department of Transportation and Public Works conducts a Customer Satisfaction Survey to determine and evaluate the public's satisfaction with the provincial highway system. It is also used to determine the department's effectiveness in providing services on the provincial highway system. This report highlights the survey findings[1].

The 2005 Customer Satisfaction Survey is based on telephone interviews with 2068 residents of Nova Scotia, 16 years of age and older. This sample is segmented by four provincial transportation districts:

Central District
Halifax and Hants Counties.

Eastern District
Antigonish, Guysborough, Inverness, Victoria, Cape Breton, and Richmond Counties.

Northern District
Pictou, Cumberland, and Colchester Counties.

Western District
Kings, Annapolis, Digby, Yarmouth, Shelburne, Lunenburg, and Queens counties.

This allows for a comparison and analysis at the district level.

A random sample of 2068 respondents provides a sampling error of plus or minus 2.15%, with a 95% confidence level. The margin of error for each of the four districts is shown in the following table.

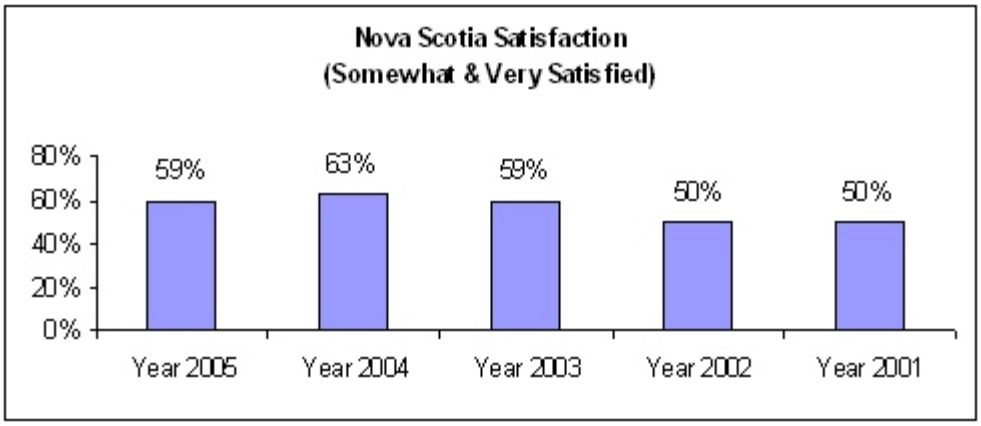
[1] As the data has been weighted to reflect the actual population by district, and percentages have been rounded to the nearest whole number, not all tables will add to 100%.

District	Population (Over 16)	Sample Size	Margin of Error (95% confidence level)
Central	390,637	518	±4.3
Eastern	139,333	517	±4.3
Northern	112,335	516	±4.3
Western	176,287	517	±4.3
Overall	818,592	2068	±2.15

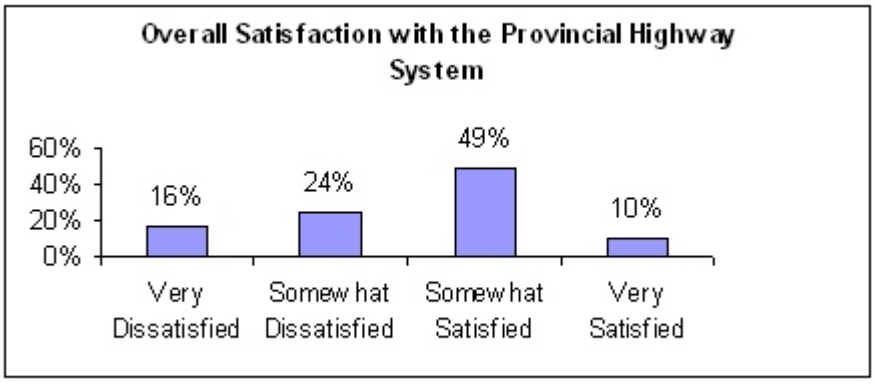
Overall Satisfaction

Overall satisfaction with the provincial highway system is a measurement of all the variables that make up customer satisfaction. There are many variables that can influence the way people respond, for example, the number of motor vehicle accidents that occur in the winter season.

Overall, Nova Scotians were generally satisfied with the provincial highway system. Almost six in ten residents from Nova Scotia (59%) felt very or somewhat satisfied with the provincial highway system. This has decreased by four percentage points since 2004.



The shift in satisfaction from 2004 to 2005 is a significant decrease, means of 2.61 and 2.55 respectively.



Residents in the Central, Northern and Western districts indicated a lower level of satisfaction as compared with the results from the 2004 survey (Central, 2.69 to 2.64; Northern, 2.57 to 2.49; Western, 2.63 to 2.41), and the Eastern district indicated a higher level of satisfaction as compared with the results from the 2004 survey (Eastern, 2.46 to 2.51). Central District expressed the highest level of satisfaction (64%), while Western District expressed the lowest amount of satisfaction (53%).

Three districts showed no significant[2] differences in satisfaction from 2004 to 2005. The Western District residents were significantly less satisfied[3] in 2005 than in 2004, 2.41 and 2.63 respectively. Residents in the Central District indicated a satisfaction mean[4] of 2.69 in 2004 and 2.64 in 2005. Residents in the Eastern District indicated a satisfaction mean of 2.46 in 2004 and 2.51 in 2005. Residents in the Northern District indicated a satisfaction mean of 2.57 in 2004 and 2.49 in 2005.

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2 Significance testing was done at the 95% confidence level.

3 Mean scores were used to calculate significant differences.

4 Scale: 1 (very dissatisfied), 2 (somewhat dissatisfied), 3 (somewhat satisfied), 4 (very satisfied).

District	Central		Eastern		Northern		Western	
Year	2005 %	2004 %	2005 %	2004 %	2005 %	2004 %	2005 %	2004 %
Very Satisfied	11	12	11	9	9	9	9	12
Somewhat Satisfied	53	54	46	47	48	53	44	51
Somewhat Dissatisfied	23	23	25	24	25	24	25	26
Very Dissatisfied	12	10	18	20	17	14	21	11

Why are Nova Scotians dissatisfied?

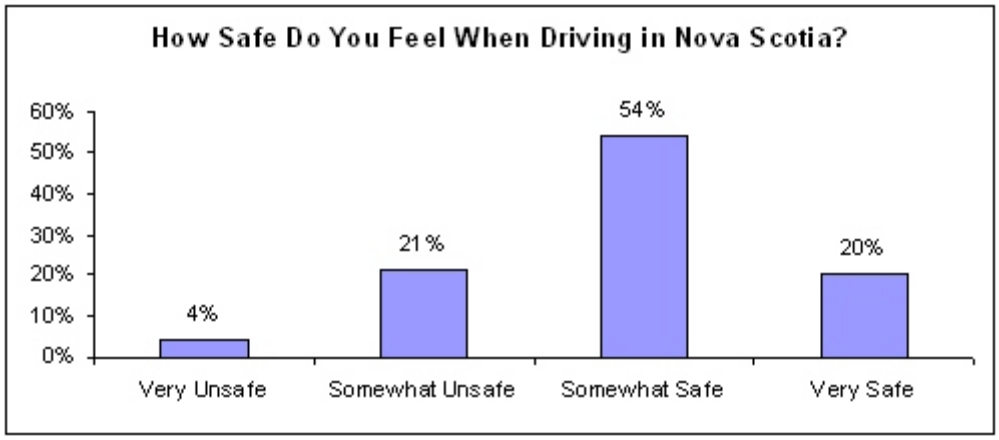
Nova Scotians were dissatisfied for various reasons. The most frequent responses were:

- Roads are poorly paved/maintained (28%)
- Potholes on the road (26%)
- Poor repair/condition (21%)

These responses were also the most frequent responses in the 2004 Customer Satisfaction Survey.

Safety - Driving

Seven in ten Nova Scotians (74%), indicated that they felt “very safe” or “somewhat safe” when driving on the provincial highways. There was a slight change in how safe residents felt driving in Nova Scotia from 2004, when it was 79%.



Percentage who feel safe when driving in Nova Scotia

	2005	2004	2003
Central	78%	81%	78%
Eastern	70%	74%	73%
Northern	75%	81%	74%
Western	71%	79%	71%

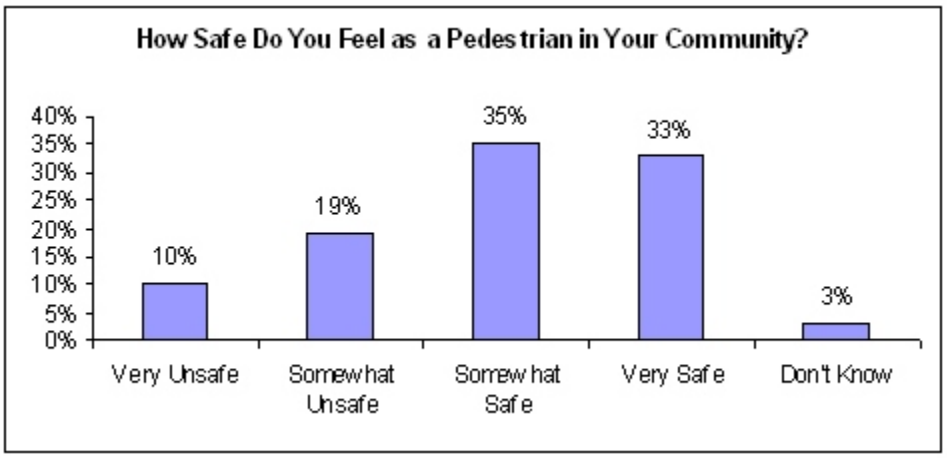
Within the districts, residents in the Northern and Central districts, 75% and 78% respectively, felt more safe while driving on provincial highway systems. During 2005, all districts had decreased their ratings of how safe they feel when driving in Nova Scotia, but only the Western District had a statistically significant decrease.

Some of reason for Nova Scotians feeling unsafe while driving include:

- Other drivers (25%)
- Traffic, road conditions, poor signage (24%)
- Lack of 4 lane highways (twinning) (19%)

Safety - Walking

Sixty-eight percent of residents indicated that they felt either very safe (33%) or somewhat safe (35%) when walking in their community, in Nova Scotia. Twenty-nine percent felt either somewhat unsafe (19%) or very unsafe (10%), another 3% indicated that they didn't know or declined to answer.



Percentage who feel safe when walking in the community in Nova Scotia

	2005
Central	66%
Eastern	67%
Northern	73%
Western	71%

Safety, as a pedestrian walking in their community varied slightly by district. Central District had the lowest safety factor at 66%, followed by the Eastern District at 67%, the Western District at 71% and the Northern District at 73%.

Residents indicated that the main reasons why they felt unsafe when walking in their community, in Nova Scotia, were speeding traffic (21%), maintain proper sidewalk (14%), and other drivers (14%).

Road Safety Measures

	Somewhat Agree 2005 %	Strongly Agree 2005 %
More Severe Penalties for driving Infractions	29	48
More Police Enforcement of Existing Regulations	32	51
Highway Improvements	25	69
Public Education Programs about Safe Driving Habits	36	47
Drivers Being More Careful and Responsible	15	83
Pedestrians Being More Careful and Responsible	33	56
Increased Government Spending on Roads and Highways	26	68

Residents of Nova Scotia agreed that the most important contribution to road safety were **drivers being more careful and responsible** (98%). This was closely followed by **highway improvements** (94%) and **increased government spending on roads and highways** (94%).

Pedestrians being more careful and responsible was rated at (89%), **public education programs about safe driving habits** (83%), **more police enforcement of existing regulations** (83%) and **more severe penalties for driving infractions** (77%).

The Following Will Improve Road Safety by District

	Central	Eastern	Northern	Western	Overall
	Means				
More Severe Penalties for driving Infractions	3.15	3.30	3.21	3.18	3.19
More Police Enforcement of Existing Regulations	3.33	3.39	3.22	3.27	3.31
Highway Improvements	3.57	3.68	3.66	3.63	3.61
Public Education Programs about Safe Driving Habits	3.22	3.37	3.25	3.24	3.25
Drivers Being More Careful and Responsible	3.81	3.83	3.77	3.81	3.81
Pedestrians Being More Careful and Responsible	3.43	3.49	3.44	3.35	3.43
Increased Government Spending on Roads and Highways	3.55	3.73	3.66	3.67	3.62

How important are highway services to Nova Scotians?

Nova Scotians felt that all of the seventeen highway services were important. Two services have significantly increased in importance[5] since the 2004 Customer Satisfaction Survey and eleven have significantly decreased in importance.

Significance Testing - Importance

Importance	2005	2004	Change
Amount of four lane divided highways	3.54	3.54	0
Filling cracks and potholes	3.85	3.87	-0.02
Resurfacing sections of the highway	**3.68**	**3.73**	**-0.05**
Snow and ice removal during a storm	**3.79**	**3.87**	**-0.08**
Timeliness of a cleanup after a storm	**3.78**	**3.82**	**-0.04**
Number of passing lanes	**3.36**	**3.53**	**-0.17**
Length of passing lanes	**3.43**	**3.54**	**-0.11**
All pavement markings	**3.78**	**3.74**	**0.04**
Roadside brush and tree clearing	3.41	3.40	0.01
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	**3.70**	**3.63**	**0.07**
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	**3.47**	**3.56**	**-0.09**
Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth	**3.50**	**3.61**	**-0.11**
Width of highway shoulders	**3.55**	**3.67**	**-0.12**
Surface condition of highway shoulders	**3.60**	**3.69**	**-0.09**
Grading and dust control of gravel	**3.31**	**3.45**	**-0.14**
Ditches and culverts	**3.40**	**3.45**	**-0.05**
Bridges	3.61	3.62	-0.01

*Scale 1(very unimportant), 2(somewhat unimportant), 3(somewhat important), 4(very important)

Significant differences are **bolded

[5] These are based on mean scores for importance ratings.

The eleven services that have significantly decreased in 2005 include:

- Number of passing lanes
- Grading and dust control of gravel
- Width of highway shoulders
- Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth
- Length of the passing lanes
- Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Surface condition of the shoulders
- Snow and ice removal during a storm
- Ditches and culverts
- Resurfacing sections of the highway
- Timeliness of a cleanup after a storm

The two services that have significantly increased in 2005 include:

- Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs, and so forth
- All pavement markings

How do Nova Scotians rate the importance of highway services?

The top seven services that received a high rating with somewhat important and very important include:

- Filling cracks and potholes (98%)
- Timeliness of a cleanup after a storm (97%)
- Snow and ice removal during a storm (96%)
- All pavement markings (96%)
- Resurfacing sections of the highway (95%)
- Surface condition of highway shoulders (94%)
- Width of highway shoulders (94%)

The seven lowest ranking services include:

- Amount of four lane divided highways (90%)
- Roadside brush and tree clearing (88%)
  Ditches and culverts (88%)
- Number of passing lanes (87%)
- Length of passing lanes (87%)
- Helpfulness of non-commercial highway signs (83%)
- Grading and dust control (77%)

Importance of Highway Services

Importance	Somewhat Important 2004%	Somewhat Important 2005%	Very Important 2004%	Very Important 2005 %
Amount of four lane divided highways	28	27	64	63
Filling cracks and potholes	10	11	88	87
Resurfacing sections of the highway	22	23	75	72
Snow and ice removal during a storm	11	13	87	83
Timeliness of a cleanup after a storm	16	16	83	81
Number of passing lanes	32	38	60	49
Length of passing lanes	32	33	60	54
All pavement markings	21	16	76	80
Roadside brush and tree clearing	34	33	53	55
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	27	19	67	64
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	32	33	62	58
Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth	29	32	66	60
Width of highway shoulders	25	33	70	61
Surface condition of highway shoulders	24	29	72	65
Grading and dust control of gravel roads	29	32	53	45
Ditches and culverts	35	38	53	50
Bridges	27	25	66	68

Significance Testing - Quality

Although 6 of 17 services had increased ratings in 2005, only three were significantly different from the ratings given in 2004. Five of seventeen services were rated significantly lower in 2005, than in 2004.

The services that showed significant decreases[6] in perceived quality between 2004 and 2005 were:

- Filling cracks and potholes
- Amount of four-lane divided highways
- Number of passing lanes
- Length of passing lanes
- Grading and dust control

The services that showed significant increases[6] in perceived quality between 2004 and 2005 were:

- Snow and ice removal during a storm
- Timeliness of a cleanup after a storm
- Helpfulness of non-commercial highway signs, such as speed limit signs, road exit signs, and so forth

[6] Significance testing was at the 95% confidence level.

Significance Testing - Quality

Quality	2005	2004	Change
Amount of four lane divided highways	**2.37**	**2.49**	**-0.12**
Filling cracks and potholes	**1.76**	**1.90**	**-0.14**
Resurfacing sections of the highway	2.25	2.26	-0.01
Snow and ice removal during a storm	**2.66**	**2.57**	**0.09**
Timeliness of a cleanup after a storm	**2.66**	**2.57**	**0.09**
Number of passing lanes	**2.38**	**2.48**	**-0.10**
Length of passing lanes	**2.35**	**2.45**	**-0.10**
All pavement markings	2.69	2.70	-0.01
Roadside brush and tree clearing	2.53	2.54	-0.01
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	**2.87**	**2.81**	**0.06**
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	2.75	2.73	0.02
Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth	2.79	2.77	0.02
Width of highway shoulders	2.36	2.36	0.00
Surface condition of highway shoulders	2.31	2.31	0.00
Grading and dust control of gravel	**2.22**	**2.29**	**-0.07**
Ditches and culverts	2.50	2.50	0.00
Bridges	2.65	2.63	0.02

*Significant differences are **bolded**.

**Scale: 1(poor), 2(only fair), 3(good), 4(excellent)

How do Nova Scotians rate the quality of highway services?

All of the seventeen highway services were important to Nova Scotians. Residents were asked to rate the services as Poor, Only Fair, Good and Excellent.

Very few residents rated the highway services as 'Excellent' although the majority rated most services as 'Good'.

Those services[7] rated highest among residents in 2005 were:

- Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth

Those services receiving the lowest rankings in 2005 were:

- Filling cracks and potholes
- Grading and dust control
- Resurfacing sections of the highway
- Surface condition of highway shoulders
- Length of passing lanes
- Width of highway shoulders
- Amount of four lane divided highways
- Number of passing lanes
- Ditches and culverts
- Roadside brush and tree clearing
- Bridges
- Snow and ice removal during a storm
- Timeliness of cleanup after a storm

[7] These are based upon the mean scores for quality ratings, a cutoff of 2.70 was used to separate the highest from the lowest services.

Quality of Highway Services

Quality	Good 2004 %	Good 2005 %	Excellent 2004 %	Excellent 2005 %
Amount of four lane divided highways	43	42	9	5
Filling cracks and potholes	21	17	3	2
Resurfacing Sections of the Highway	39	38	4	3
Snow and ice removal during a storm	49	51	10	11
Timeliness of a cleanup after a storm	49	52	9	11
Number of passing lanes	49	44	5	4
Length of passing lanes	47	42	5	4
All pavement markings	59	59	10	9
Roadside brush and tree clearing	51	50	7	8
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	66	47	9	15
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	64	64	7	8
Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth	67	67	7	8
Width of highway shoulders	43	45	4	3
Surface condition of highway shoulders	40	41	4	4
Grading and dust control of gravel roads	31	28	3	1
Ditches and culverts	49	52	3	3
Bridges	55	60	6	5

Where are the gaps in highway service?

We can use the information obtained from the 2005 survey results to assist in policy decision making and highway planning. One of the ways to determine service priorities, is to measure gaps that are present between the quality rating that Nova Scotians expressed and what services Nova Scotians consider being important. An important gap exists when the service is considered to be important and the service expectations of these same residents are not being met. Lower gap scores indicate that service expectations are being met, high gap scores show that there is a problem.

Factor	2004 %	2005 %
Amount of four lane divided highways	**56**	**59**
Filling cracks and potholes	86	86
Resurfacing sections of the Highway	71	69
Snow and ice removal during a storm	**78**	**73**
Timeliness of a cleanup after a storm	**75**	**71**
Number of passing lanes	**57**	**47**
Length of passing lanes	**57**	**51**
All pavement markings	**68**	**73**
Roadside brush and tree clearing	**48**	**51**
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	**60**	**42**
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	**57**	**52**
Maintenance of non-commercial signs such as speed limit signs, road exit signs and so forth	**60**	**54**
Width of highway shoulders	**67**	**59**
Surface condition of highway shoulders	**68**	**63**
Grading and dust control of gravel roads	**45**	**41**
Ditches and culverts	**50**	**48**
Bridges	**59**	**64**

*Significant differences are **bolded**.

There have been eleven significant[8] reductions in gap scores in Nova Scotia, four significant increases, and two scores with no change.

The significant decreases in gap scores in the following services:

- Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Number of passing lanes
- Width of highway shoulders
- Length of passing lanes
- Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Snow and ice removal during a storm
- Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth
- Surface condition of highway shoulders
- Timeliness of cleanup after a storm
- Grading and dust control of gravel roads
- Ditches and culverts

There have been significant increases in gap scores in the following services:

- All pavement markings
- Bridges
- Amount of four lane highways
- Roadside brush and tree clearing

It is the fifth year in a row that **filling cracks and potholes** has produced the largest gap value (86%). This is a strong indication that the Department of Transportation and Public Works is not providing sufficient services in regard to filling cracks and potholes. Across the province there were differences in gap scores for this service. The Northern District received the highest gap score with 89%, while Western showed the lowest gap score with 82%. The overall score has not changed from 2004 to 2005,

Surface condition of shoulders has decreased this year with a score of 63%. The gap score for this service has decreased from 68% in 2004. Northern District yielded the lowest gap score of 60%, the Eastern District had the highest gap score of 68% while the other two district's gap scores were 62%.

Width of highway shoulders produced a gap score of 59% in 2005. This is a decrease of 8 percentage points from the 2004 gap score. The district gap scores ranged from 57% (Northern) to 63% (Eastern).

[8] Significance testing was at the 95% confidence level.

All pavement markings including yellow and whites lines had increased by 5 percentage points from 2004, leaving it with a gap score of 73% in 2005. District gap scores ranged from 68% (Western) to 75% (Central).

The gap score for **snow and ice removal** had decreased 5 percentage points from last year, giving it a 73% gap score for 2005. The district level Snow and ice removal scored relatively the same within each district. Eastern being the highest with a gap score of 75%, Central being 74%. Northern and Western with the lower scores of 73% and 72%, respectively.

The gap for **timeliness for the clean up (after a storm)** with a score of 71%, decreased 4 percentage points from the 2004 score which was 75%. District gap scores ranged from 68% (Western) to 74% (Eastern).

Resurfacing sections of the highway, yielded a gap score of 69% in 2005. Western District showed the lowest gap score (66%) while Eastern District showed a score of 74%, Northern with 70%, and Central with 67%.

Ninety three percent of Nova Scotians indicated that **bridges** were somewhat important or very important. However, only 5% of these same residents indicated that they felt the Department of Transportation and Public Works was doing an excellent job in regard to bridges. This produced a gap of 64%, this score has increased 5 percentage points from last year, 2004, when it was 59%. Western District (59%) had a lower gap score than the other three Districts, which ranged from 63% to 69%.

Services regarding **helpfulness, amount** and **maintenance of non-commercial signs** produced gap scores of 42%, 52% and 54%, respectively, all of which showed a change from last year. Helpfulness decreased by 18 percentage points, maintenance decreased by 6 percentage points and the amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth decreased by 5 percentage points from the 2004 results. The Eastern District had the highest gap scores at 44%, 56% and 57% respectively.

The gap score for the **amount of four-lane divided highways** has increased in percentage, following a decreasing trend. The 2005 gap score showed a percentage of 59%, indicating that the Department of Transportation and Public Works was doing a good job. The Eastern District was the highest with a gap score of 62%.

The **number** and **length of passing lanes** had gap scores of 47% and 51%, respectively. The gap for the number of passing lanes has decreased 10 percentage points from last year, while the length of passing lanes has decreased by 6 percentage points . The Eastern District showed the highest gap scores for both the number and length of passing lanes with 52% and 54%, respectively.

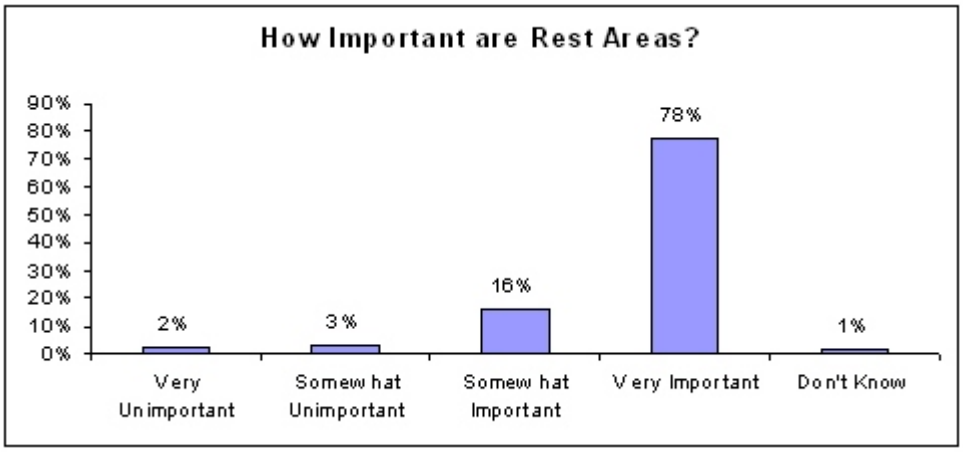
Roadside brush and tree clearing, and **grading and dust control of gravel roads** had gap scores of 51% and 41%, respectively. The roadside brush and tree clearing gap

score increased by 3 percentage points from 2004 results, while grading and dust control decreased 4 percentage points from the 2004 results.

Ditches and culverts produced a small gap score of 48%. A decrease of 2 percentage points for 2005 following a decrease of 1 percentage point from the 2004 gap score. This suggests the TPW is meeting expectations with regards to ditches and culverts. The Eastern and Northern Districts of the province showed the highest gap score of 50% each, and the Central and Western districts had the lowest (45%).

Rest Areas

When asked about how important rest stops were on our provincial highways, more than nine in ten residents indicated that they were somewhat (16%) or very (78%) important.



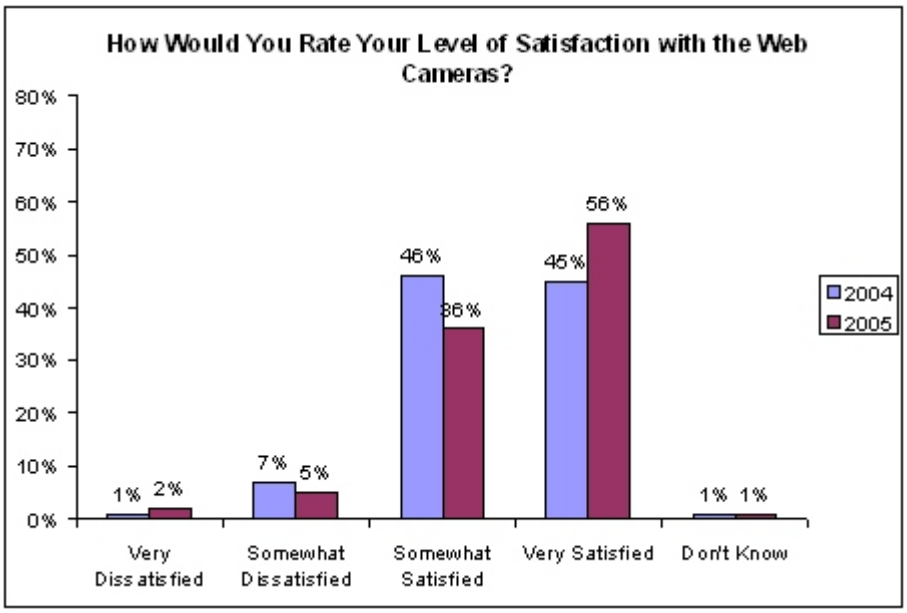
The top two reasons why residents felt that rest stops were not important are as follows:

- Many places to pull over (34%)
- Small province, short traveling, no need (21%)

Seven percent of the residents indicated that they had used the rest area on Highway 104, Exit 21, which is located between Salt Springs and Stellarton. Thirteen percent of residents indicated they had used the rest area on Highway 104, Exit 7, which is located between Oxford and Truro. More than nine in ten residents who used these rest areas felt somewhat (38%) or very (55%) satisfied.

Web Cameras

When asked if you have ever used the web cameras on TPW's website, 29% of Nova Scotia residents indicated yes. Forty-one percent of residents who drove over 40,000KM per year had used the web cameras.



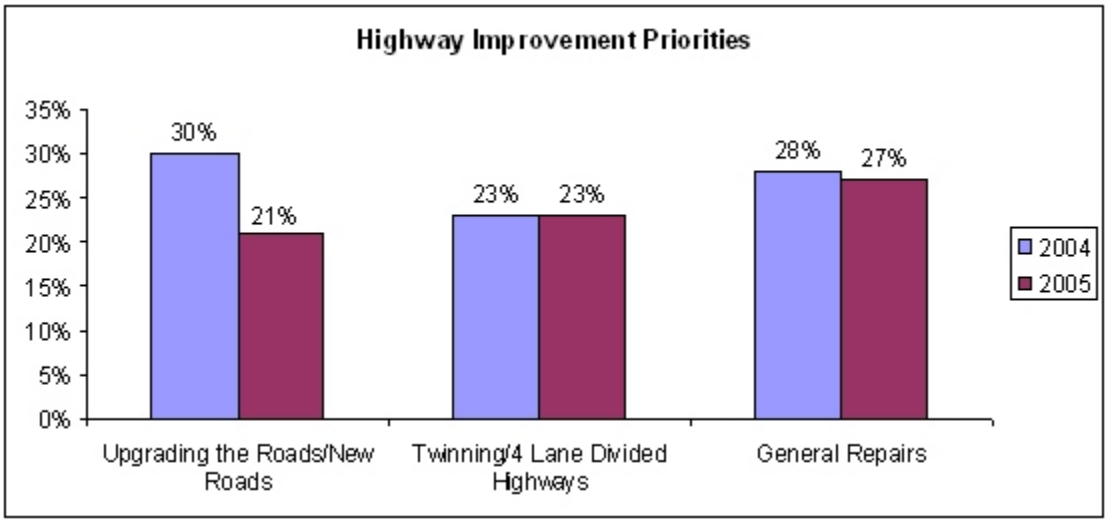
More than nine in ten of the 601 who have used web cameras indicated that they were somewhat (36%) or very (56%) satisfied with the web cameras on the Nova Scotia Department of Transportation and Public Works web site.

The top two reasons residents felt dissatisfied were:

- Cameras not up to date (23%)
- Cameras should be live (18%)

Highway Improvement Priorities

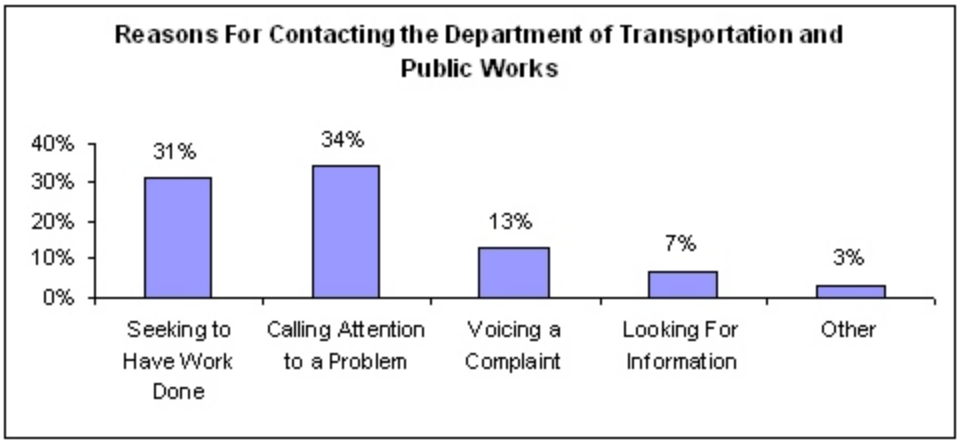
Overall, 27% of Nova Scotians indicated that they felt the top priority should be placed on **general repairs. Upgrading the roads/new roads** was also looked at by 21% of Nova Scotians as important and needing to be improved. Twenty-three percent of residents felt that **twinning/4 lane divided highways** should be the priority of the Nova Scotia Department of Transportation and Public Works.



Communication with Staff

Relatively few residents of Nova Scotia contacted the Department of Transportation and Public Works in the past year.

Overall, 17% of Nova Scotians indicated that they had contacted the Department of Transportation and Public Works in the past year, 82% indicated that they had not[9]. Nova Scotians indicated several reasons for the contact, the majority of those reasons related to calling attention to a problem (34%), or seeking to have work done (31%).



The majority (57%) of residents were either somewhat (27%) or very satisfied (30%) with the response from the department.

[9] May not add to 100% due to rounding.

How is this information used?

This Customer Satisfaction Survey assists the Department of Transportation and Public Works in several ways. This survey is used to:

- Assist TPW in finding ways to improve service delivery; for example, formulating service standards
- Report on TPW's performance in the area of customer satisfaction as part of the government-wide performance measurement process
- Support departmental planning and decision making

The identification of gaps between the level of service customers expected and what they believed they received revealed a number of service areas in which improvements could be made. This analysis provides the Department of Transportation and Public Works with a reliable tool for making choices on providing highway services in the future. Improvements in service delivery may be limited, due to budgetary or other constraints. However, through incremental improvements to services and by communicating the department's limitations TPW can begin to work toward addressing the existing gaps in the services in a systematic manner.