



WSDOT Maintenance Survey Summary Report

July 2012

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EXECUTIVE SUMMARY

Purpose:

The Washington State Department of Transportation (WSDOT) was interested in evaluating customer satisfaction with state highway maintenance activities. In order to obtain public input, information regarding perceptions of maintenance activities in general, and public priorities in particular needed to be obtained. In addition, WSDOT wanted to compare customer perceptions in 2012 with those from the 2000 and 2005 surveys, thereby allowing for a trend analysis.

Methodology:

PRR was contracted to develop, implement, and analyze data from a statistically valid telephone survey administered to residents of the State of Washington. PRR in consultation within WSDOT:

- Developed a statistically valid telephone survey of Washington State residents
- Pre-tested the survey questions and made necessary revisions before final fielding
- Fielded the telephone survey to a random sample of 750 Washington State residents (divided equally into three geographic regions) who drive 50 or more miles per week on state highways

Key Results:

- Most (74%) respondents in 2012 were satisfied with highway maintenance, decreasing very slightly since 2000.
- The issue of roadway surfaces is still the number 1 improvement desired, and in fact, increased since 2005, with 84% now mentioning it.

- A gap analysis was performed by determining how satisfied respondents were with WSDOT maintenance activities, and how important the respondents reported those activities to be to them. By subtracting the mean satisfaction score from the mean importance score, either a positive or negative gap score is created. The maintenance activities with the highest negative gap scores would be the activities viewed as top priorities by the respondents.
 - The one area where WSDOT was exceeding the respondents' expectations was the maintenance of roadside vegetation (how plants, grasses, flowers by the roadside appear).
 - The largest negative gap scores for the state as a whole (and particularly for those in the western urban region of Washington) was the condition of roadway surfaces. This was also the case in 2000 and in 2005.
 - Also consistent with the 2000 and 2005 surveys are the following other maintenance activities with larger negative gap scores:
 - Road stripes and pavement markings (particularly in western urban Washington in 2012)
 - Maintaining drainage (especially in western urban and non-urban Washington in 2012)
 - Snow and ice removal (especially in eastern Washington and western urban Washington in 2012)
- Analysis of variance was used to identify the following significant changes over time:
 - Changes in satisfaction over time:
 - Satisfaction with maintaining roadway surfaces increased from 2000 to 2005, but then decreased from 2005 to 2012
 - Satisfaction with road stripes and pavement markings was essentially the same from 2000 to 2005, but then decreased from 2005 to 2012

- Satisfaction with maintaining rest areas decreased from 2000 to 2005, but then increased from 2005 to 2012
 - Changes in importance over time:
 - The importance of maintaining roadway surfaces decreased from 2000 to 2005, but then increased from 2005 to 2012
 - The importance of maintaining drainage decreased from 2000 to 2005, but then increased from 2005 to 2012
 - The importance of maintaining roadside vegetation increased from 2000 to 2005 and then remained essentially the same from 2005 to 2012
 - The importance of maintaining road stripes and pavement markings decreased from 2000 to 2005, but then remained essentially the same from 2005 to 2012
 - The importance of maintaining roadway signs remained essentially the same from 2000 to 2005, but then increased from 2005 to 2012
 - The importance of maintaining guardrail remained essentially the same from 2000 to 2005, but then increased from 2005 to 2012
 - The importance of maintaining highway lighting decreased from 2000 to 2012
 - The importance of maintaining rest areas decreased from 2000 to 2005, but then increased from 2005 to 2012
- The majority (51%) of respondents rated highway maintenance above average or excellent in 2012. However, since 2000, the rating of overall maintenance decreased, especially among females.
- Response to emergencies by maintenance crews was highly rated in 2012, with 62 percent rating it excellent or above average, just slightly lower since 2000.
- The majority (62%) of respondents rated state highways better maintained than local roads in 2012, slightly lower since 2000.

- Maintenance of WA state highways rated better than other states' by almost half (49%) and has remained about the same since 2000.
- In 2012, 14.3% of respondents had contacted WSDOT about maintenance issues. This was almost twice as many as reported contacting WSDOT in the 2005 survey. Among those who had, well more than half (62%) were satisfied with the response they received from WSDOT.

I. Purpose

The Washington State Department of Transportation (WSDOT) was interested in evaluating customer satisfaction with state highway maintenance activities. In order to obtain public input, information regarding perceptions of maintenance activities in general, and public priorities in particular needed to be obtained. In addition, WSDOT wanted to compare customer perceptions in 2012 with those from the two previous waves of this survey (2000 and 2005), thereby allowing for a trend analysis.

PRR was contracted to develop, implement, and analyze data from a statistically valid telephone survey administered to residents of Washington State who drive on state highways at least 50 miles per week. The survey results provided representative data on the following survey objectives:

- Satisfaction with and importance of highway maintenance activities
- Priorities for improved maintenance

This report summarizes the results of the 2012 survey, as well as comparisons to the 2000 and 2005 surveys.

II. Methodology

PRR in consultation with WSDOT:

- Developed a statistically valid telephone survey of Washington State residents from three geographic areas (see survey in Appendix A)
- Pre-tested the survey and made necessary revisions before final fielding
- Fielded the telephone survey to a sample of 750 Washington State residents who traveled at least 50 miles per week on state highways

III. Sampling

We used both random digit dial (RDD) sample and cell phone sample for Washington Stateⁱ.

Potential respondents in each of the three geographic areas were randomly selected from the sampling frames for inclusion in the telephone survey. A disproportionate, stratified random sample (stratified by the three geographic areas) was used. This stratification allowed for a final sample that had an overall margin of error of ± 3.58 percent and had sufficient numbers of respondents from each of the three geographic areas to produce within each area a margin of error of ± 6.2 percent. The final sample of 750 respondents was randomly selected with the following quotas operating:

- One-third of the sample was called “Western Non-urban,” and it included the following counties: San Juan, Island, Whatcom, Skagit, Clallam, Jefferson, Kitsap, Grays Harbor, Mason, Thurston, Pacific, Wahkiakum, Lewis, Cowlitz, Clark, and Skamania.
- One-third of the sample was called “Eastern,” and it included the following counties: Okanogan, Chelan, Kittitas, Yakima, Klickitat, Douglas, Grant, Benton, Franklin, Walla Walla, Columbia, Garfield, Asotin, Whitman, Adams, Lincoln, Spokane, Ferry, Stevens, and Pend Oreille.
- One-third of the sample was called “Western Urban,” and it included Pierce, King, and Snohomish Counties.

In order to reduce non-response bias, up to six attempts per potential respondent were made to establish telephone contact at different times of the day and different days of the week. A person in the household who reported driving on a state highway 50 miles or more per week was interviewed. If no one in the household drove that distance on a

ⁱ The final sample included 6% cell-only households, 14% landline-only households, and 80% of households with both landline and cell phones. With the landline/cell phone combination households, 29% were cell-mostly, 34% were landline-mostly, and 37% were households where calls were taken about equally on cell and landline phones.

weekly basis, then no one from that household was interviewed. The survey took an average of twelve minutes to complete. The response rate was 5%ⁱⁱ and the cooperation rate was 46%ⁱⁱⁱ.

IV. Data Processing and Analysis

Data processing consisted of coding and entering quantitative and qualitative responses with the use of a CATI (Computer Assisted Telephone Interview) system, performing response range and logic checks on quantitative variables in order to check for miscoded variables, and cleaning the final data file.

Data analysis was performed with SPSS (formerly known as Statistical Package for the Social Sciences) and involved the use of appropriate descriptive statistical techniques (frequencies, percentages, means) and explanatory statistical techniques (Kendall's tau c, Cramer's V, and Analysis of Variance). Throughout this report, relationships between variables that are statistically significant at the .05 level or better, and which are meaningful to an understanding of the project objectives are reported (accompanied in footnotes by the statistical test, the respective coefficient, and the significance level)^{iv}.

ⁱⁱ Using the approved American Association of Public Opinion Research approach, response rate is defined as the number of completed surveys plus partial or suspended surveys divided by the number of completed surveys, plus partial or suspended surveys, plus qualified refusals, plus break-offs, plus no answer, plus busy signal, plus answering machine, plus soft refusals, plus hard refusals, plus scheduled callbacks, plus unspecified callbacks.

ⁱⁱⁱ Cooperation rate is defined as the number of completed surveys divided by the number of completed surveys plus refusals plus break-offs. Therefore, it is the percent of those contacted who qualified and who completed the survey.

^{iv} *Cramer's V* is a measure of the relationship between two variables and is appropriate to use when one or both of the variables are at the nominal level of measurement. *Cramer's V* ranges from 0 to +1 and indicates the strength of a relationship. The closer to +1, the stronger the relationship between the two variables. The *Kendall's tau c* statistic is a measure of the relationship between two variables and is appropriate to use with ordinal level variables or with dichotomous nominal level variables. *Tau c* ranges from -1 to +1 and indicates the strength and direction (inverse or direct) of a relationship. The closer to either +1 or -1, the stronger the relationship between the two variables. The accompanying "p" scores presented in this report for *Cramer's V* and *Kendall's tau c* indicate the level of statistical significance. *Analysis of Variance* was used to compare many of the 2012, 2005 and 2000 surveys on a number of scaled variables.

V. Sample Characteristics

The information in this section of the report provides an overview of the respondents for the 2012 survey. Compared to the 2000 and 2005 surveys, the 2012 respondents were more likely to be older¹, to come from small town or rural areas,² somewhat more likely to use state highways fewer days per week³, to have just one vehicle⁴, and slightly more likely to travel fewer miles per week on state highways⁵.

A. Demographics

1. Gender:

- Female (50.4%)
- Male (49.6%)

2. Age:

- Under 25 (4.8%)
- 25 to 34 (7.6%)
- 35 to 44 (11.3%)
- 45 to 54 (17.9%)
- 55 to 64 (26.4%)
- 65 to 74 (20.0%)
- 75 and older (10.8%)
- Refused (1.2%)

3. Type of residence area:

- Metropolitan area (16.0%)
- Suburban (20.9%)
- Small town or rural (63.1%)

4. Years lived in WA:

- Less than 6 months (0.9%)
- 6 months to 11 months (0.4%)
- 1 to 4 years (4.1%)
- 5 to 9 years (6.3%)
- 10 or more years (88.3%)

5. Primary language spoken:

- English (98.9%)
- Other [Arabic, Bosnian, Spanish, German, Tagalog] (0.9%)
- Don't know (0.1%)

B. Travel Behavior

1. Approximate days per week traveled on state highways:

- 1 day (5.3%)
- 2 days (11.6%)
- 3 days (13.5%)
- 4 days (11.3%)
- 5 days (21.2%)
- 6 days (13.7 %)
- 7 days (28.3%)

2. Number of working vehicles in household:

- None (0.8%)
- One (21.2%)
- Two (37.5%)
- Three (23.2%)
- Four (9.5%)
- Five (3.6%)
- Six (2.0%)
- 7 or more (2.3%)

3. Miles traveled on state highways per week:

- 50-100 miles (45.5%)
- 101-150 miles (10.7%)
- 151-200 miles (13.3%)
- 201-250 miles (5.2%)
- 251 or more miles (25.3%)

VI. Results

Because differences between the three regions of the state were generally not statistically significant and because a major focus of this report is to look at trends since the 2000 survey, charts and tables are presented with results broken out by the year of the survey and not by areas of the state. Where statistically significant differences were found among the three regions of the state, those results are discussed within the body of the report. (Appendix B presents the results of all survey questions broken out by region.)

A. Satisfaction with Level of Maintenance

Most Drivers are Satisfied with Highway Maintenance

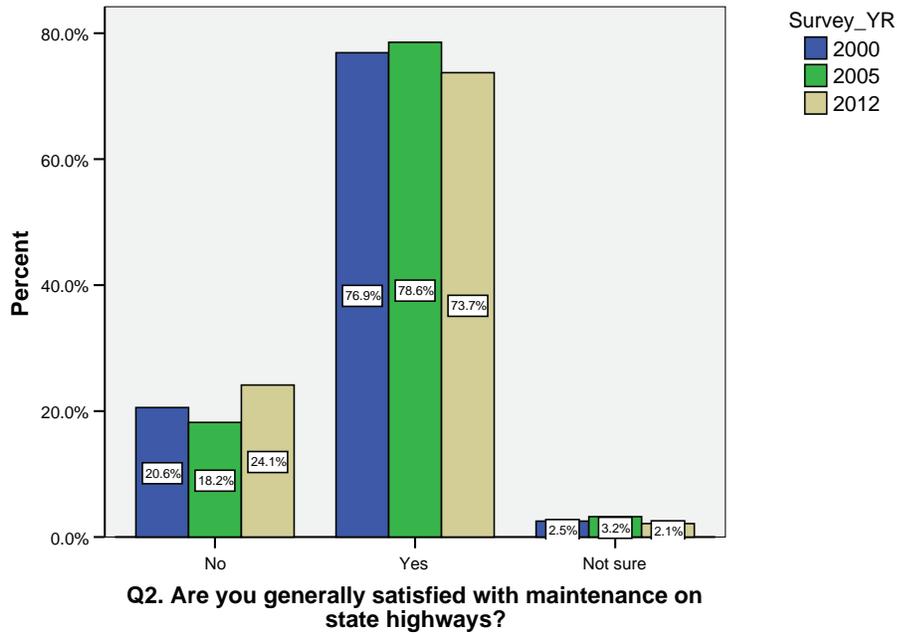
Respondents were asked if they were generally satisfied with the level of maintenance on state highways. Chart 1 indicates that almost three-quarters (74%) are generally satisfied with highway maintenance. However, almost one-quarter (24%) of the respondents reported they were not satisfied.

The percent of respondents generally satisfied with highway maintenance decreased very slightly from 2000 (77%) and 2005 (79%) to 74% in 2012.⁶

Those who were more satisfied were more likely to be:

- Males (79%) compared to females (69%).⁷

Chart 1 - General Satisfaction with Highway Maintenance



Roadway Surfaces Still the Number 1 Improvement Desired

Of those respondents who indicated that they were not generally satisfied with the level of maintenance or reported that they were not sure, 84% said that the maintenance of roadway surfaces needed to be improved (an increase from the 69% in 2005 and the 71% in 2000). Of much less concern were signs, signals, lane striping, lighting, and pavement reflectors (14%, down slightly from 17% in 2005). Thirteen percent (similar to the 15% in 2005 and the 14% in 2000) indicated that the amount of litter, debris, and overgrown vegetation is an area that needs to be improved.

Table 1: Improvements desired in maintenance services

	Year of survey		
	2000	2005	2012
Roadway surface - potholes, cracks, rough road	71.2%	69.2%	84.3%
Signs, signals, lane striping, lighting, pavement reflectors	12.3%	17.4%	13.7%
Litter, debris, overgrown vegetation	14.4%	15.1%	13.2%
Snow / ice removal not done effectively	4.1%	7.0%	7.6%
Rest areas not well-maintained	2.1%	2.3%	1.5%
Poor drainage	2.7%	2.3%	1.5%
Shoulders are dangerous	3.4%	0%	0%
More/bigger lanes/roads	0%	7.0%	5.1%
General maintenance/have more/better maintenance	0%	4.7%	0%
Construction takes too long	0%	5.8%	0%
Congestion/traffic/traffic flow	0%	7.6%	0%
Other	19.9%	12.2%	8.6%

*Percentages do not add up to 100% because respondents could give more than one response.

B. Gap Analysis (Evaluating What's Important and How Satisfied Highway Users Are)

A gap analysis was performed by determining how satisfied respondents were with WSDOT maintenance activities and how important the respondents reported those activities to be to them. Each item in this section of the survey was rated on a scale of 1 to 4, with 1 being either “very dissatisfied” or “very unimportant” and 4 being “very satisfied” or “very important”. By subtracting the mean satisfaction score from the mean importance score, either a positive or negative gap score is created (unless the two means are equal).

- A positive gap indicates that the WSDOT maintenance activity in question exceeds the respondents’ expectations
- A negative gap indicates that the WSDOT maintenance activity does not live up to the respondents’ expectations

This gap analysis can be helpful in assigning priorities, especially considering how the question was posed to the respondents: “if I had \$200 worth of work to do but only \$100 to spend, which work activities would I spend the money on and which would not get accomplished?” The maintenance activities with the highest *negative* gap scores would be the activities viewed as top priorities by the respondents.

Charts 2-5 present the satisfaction ratings, the importance ratings, and the gap scores for the entire state and for each geographical area of the state.

- For the state as a whole, the one area where WSDOT was exceeding respondents' expectations was the maintenance of roadside vegetation (how plants, grasses, flowers by the roadside appear). Although there was a positive gap, the average importance scores for this activity were not very high relative to other maintenance activities. This indicates that although there is a moderate level of satisfaction with maintaining roadside vegetation, it was not a very important activity to the respondents.
- The largest negative gap scores for the state as a whole was the condition of roadway surfaces. This was also the case in 2000 and in 2005.
- Also consistent with the 2000 and 2005 surveys are the following other maintenance activities with larger gap scores:
 - Road stripes and pavement markings
 - Maintaining drainage
 - Snow and ice removal

Differences between the geographic areas were generally not statistically significant, except as noted below:

- Those in the eastern area were slightly more satisfied with *maintaining drainage* than those in the western urban and western non-urban areas.⁸
- Those in the eastern area rated *maintaining drainage* slightly less important than those in the western urban and western non-urban areas.⁹
- Those in the eastern area were more satisfied with *litter and trash removal* than those in the western urban and western non-urban areas.¹⁰
- Those in the eastern area were slightly more satisfied with *snow and ice removal* than those in the western urban and western non-urban areas.¹¹
- Those in the eastern area rated the importance of *snow and ice removal* more important than those in the western urban and western non-urban areas.¹²
- Those in the eastern and western non-urban areas were more satisfied with *road stripes and pavement markings* than those in the western urban areas.¹³

There were also some statistically significant differences by respondent demographics:

- Females were significantly more likely to rate the following maintenance activities as more important than males:
 - Litter and trash removal¹⁴
 - Maintaining roadside vegetation¹⁵
 - Snow and ice removal¹⁶
 - Maintaining road stripes and pavement markings¹⁷
 - Maintaining roadway signs¹⁸
 - Maintaining highway lighting¹⁹
 - Maintaining rest areas²⁰
- The older the respondent, the more likely they were to rate higher the importance of:
 - Maintaining roadside vegetation²¹
 - Maintaining guardrail²²
 - Maintaining highway lighting²³
 - Maintaining rest areas²⁴
- Those who lived in suburban or rural areas rated higher the importance of maintaining rest areas.²⁵

Analysis of variance was used to identify the following significant changes over time. (See Appendix C for the full ANOVA results.)

- Changes in *satisfaction* over time:
 - Satisfaction with maintaining roadway surfaces increased from 2000 to 2005, but then decreased from 2005 to 2012.²⁶
 - Satisfaction with road stripes and pavement markings was essentially the same from 2000 to 2005, but then decreased from 2005 to 2012.²⁷
 - Satisfaction with maintaining rest areas decreased from 2000 to 2005, but then increased from 2005 to 2012.²⁸

- Changes in *importance* over time:
 - The importance of maintaining roadway surfaces decreased from 2000 to 2005, but then increased from 2005 to 2012.²⁹
 - The importance of maintaining drainage decreased from 2000 to 2005, but then increased from 2005 to 2012.³⁰
 - The importance of maintaining roadside vegetation increased from 2000 to 2005 and then remained essentially the same from 2005 to 2012.³¹
 - The importance of maintaining road stripes and pavement markings decreased from 2000 to 2005, but then remained essentially the same from 2005 to 2012.³²
 - The importance of maintaining roadway signs remained essentially the same from 2000 to 2005, but then increased from 2005 to 2012.³³
 - The importance of maintaining guardrail remained essentially the same from 2000 to 2005, but then increased from 2005 to 2012.³⁴
 - The importance of maintaining highway lighting decreased from 2000 to 2012.³⁵
 - The importance of maintaining rest areas decreased from 2000 to 2005, but then increased from 2005 to 2012.³⁶

Chart 2: Statewide Gap Analysis (n=750)

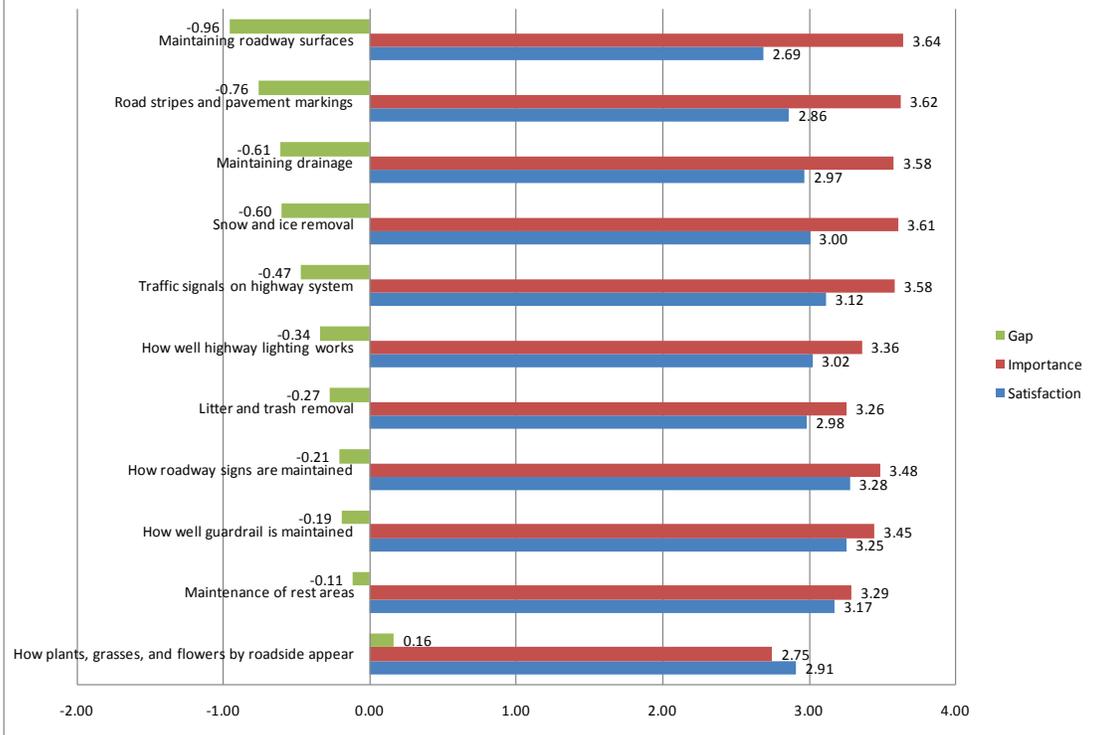


Chart 3: Western Non-urban Washington Gap Analysis (n= 250)

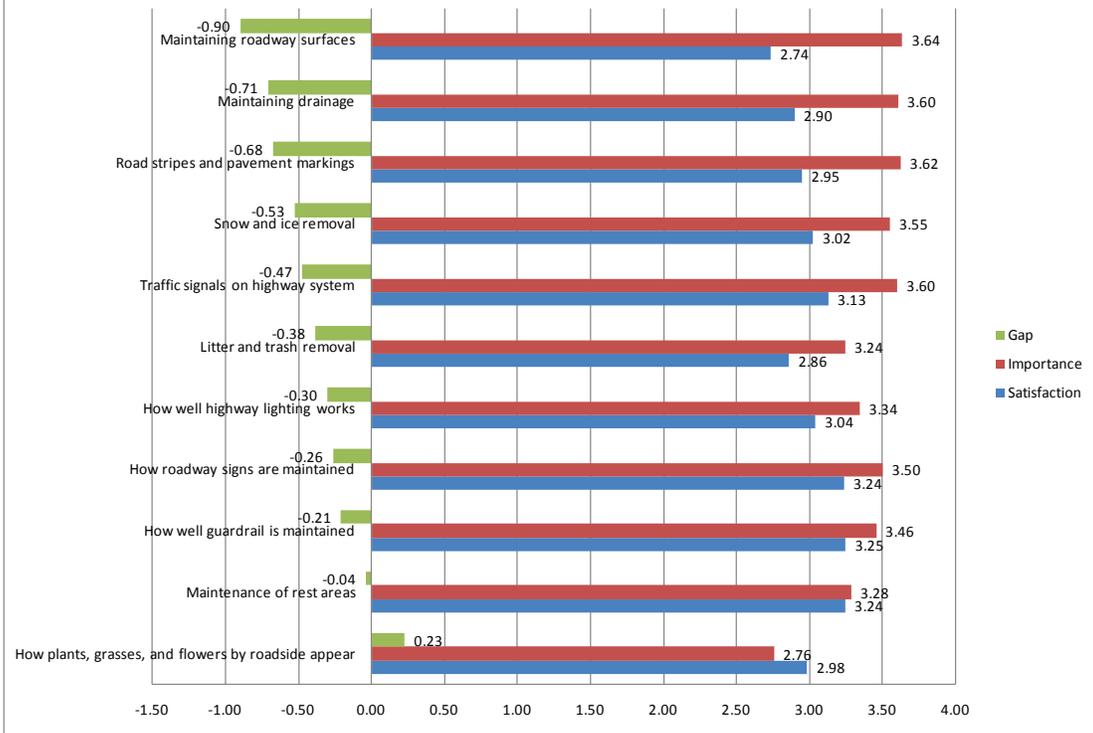


Chart 4: Western Urban Washington Gap Analysis (n=250)

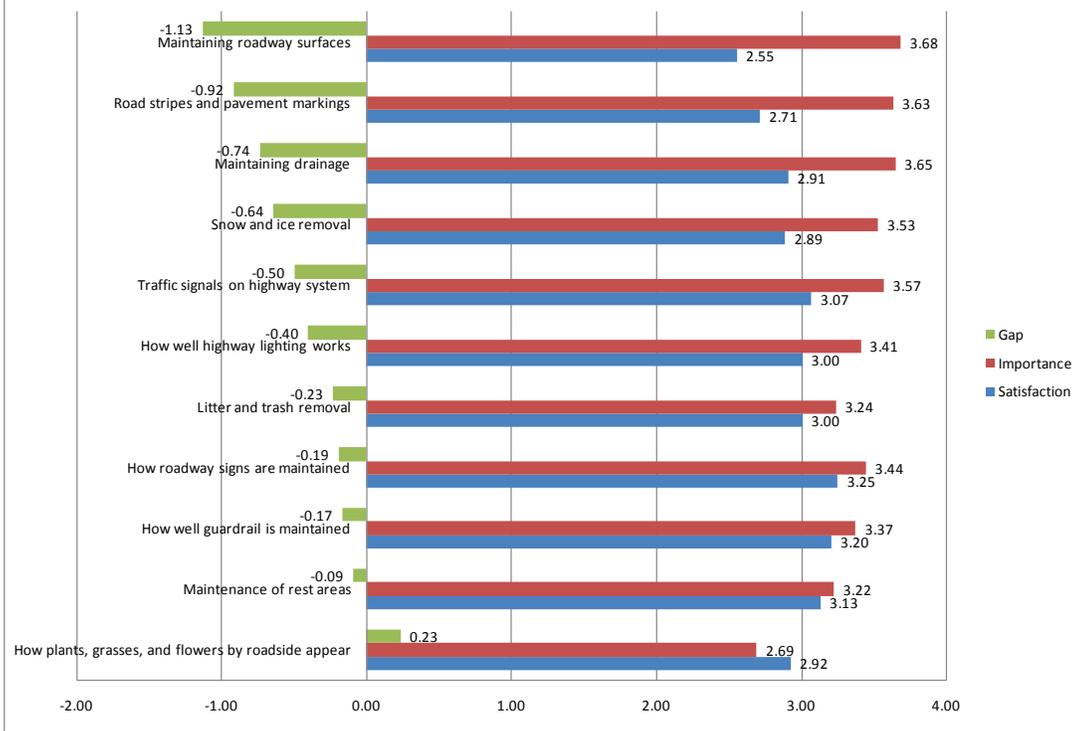
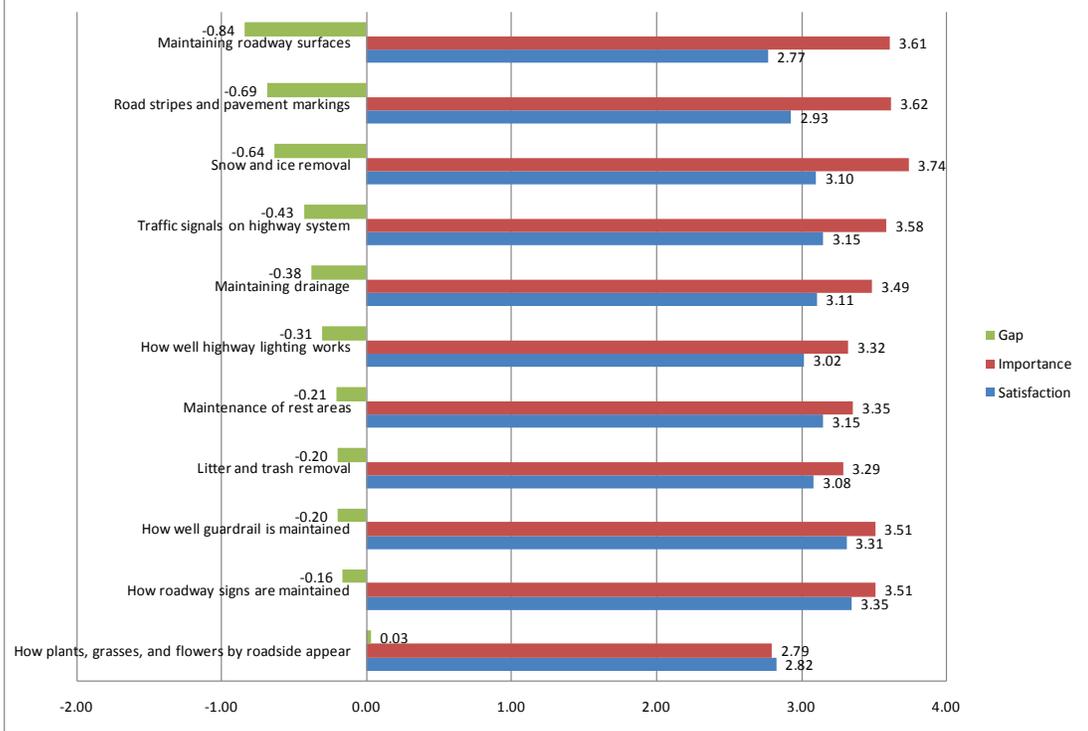


Chart 5: Eastern Washington Gap Analysis (n=250)



C. Road Surfaces, Pavement Striping, Roadside Litter Identified as Top Areas Needing Improvement

Respondents were asked what needed to be further improved about the two maintenance activities that they had given the lowest satisfaction ratings to. As can be seen in Table 2, the following issues emerged as desired further maintenance improvements:

- Road surface/potholes/cracks/rough roads (33.6%)
- Lane lines/hard to see/in poor condition/need more (22.4%)
- Litter/debris/picking up litter on side of roads (15.7%)

It should also be noted that when pressed to identify more specifically what needed to be improved about the two maintenance activities that they rated lowest in satisfaction, almost a quarter (22.7%) could not provide more specific details.

Table 2: Other Improvements Needed	2012%
Roadway surface/potholes/cracks/rough roads	33.6
Lane lines/ hard to see/ in poor condition/need more	22.4
Litter/debris/picking up litter on side of roads	15.7
Water drainage/better drainage to help with standing water	14.7
Weeds and vegetation/overgrown/get rid of weeds	14.0
Cleanliness/clean it up/get rid of the graffiti	13.5
Lighting/better headlights/more lighting	12.9
Maintenance/better up keep (non specific)	11.3
Snow removal/ice removal/more plows/faster removal	10.9
Signs/additional signs/signs in poor condition	8.5
Traffic signals/need more traffic signals/timing of traffic signals	4.2
Better guardrails/additional guardrails	3.9
More maintenance (non specific)	3.5
More plants/maintain plants	2.5
Do it faster/more often (non-specific)	2.5
Traffic/congestion	1.9
Rest areas/cleaner rest stops/additional rest stops	1.1
Less traffic signals/too many traffic signals in unnecessary areas	0.5
Other	8.7
Don't know	0.5

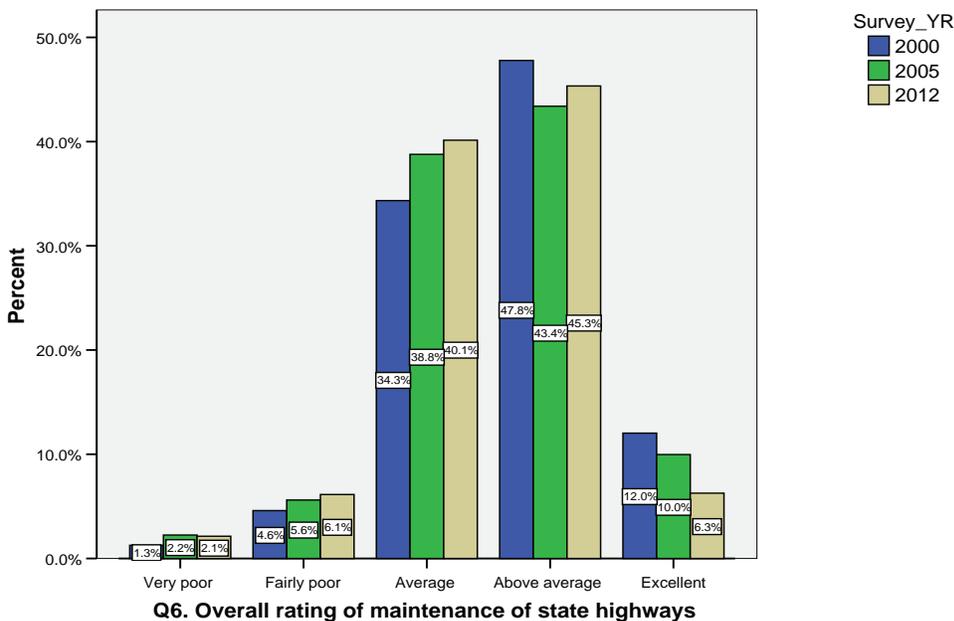
D. Overall Maintenance and Response to Emergencies

Most Rate Maintenance Above Average or Better

This question asked respondents to rate highway maintenance “in light of all the topics” that were discussed in the gap analysis questions. Six percent reported overall maintenance as being “excellent,” with another 45% reporting maintenance activities to be *above average*. Eight percent rated overall maintenance as *fairly poor* or *very poor*.

Since 2000, the rating of overall maintenance of state highways decreased,³⁷ especially among females.³⁸

Chart 6 -Overall Rating of Highway Maintenance

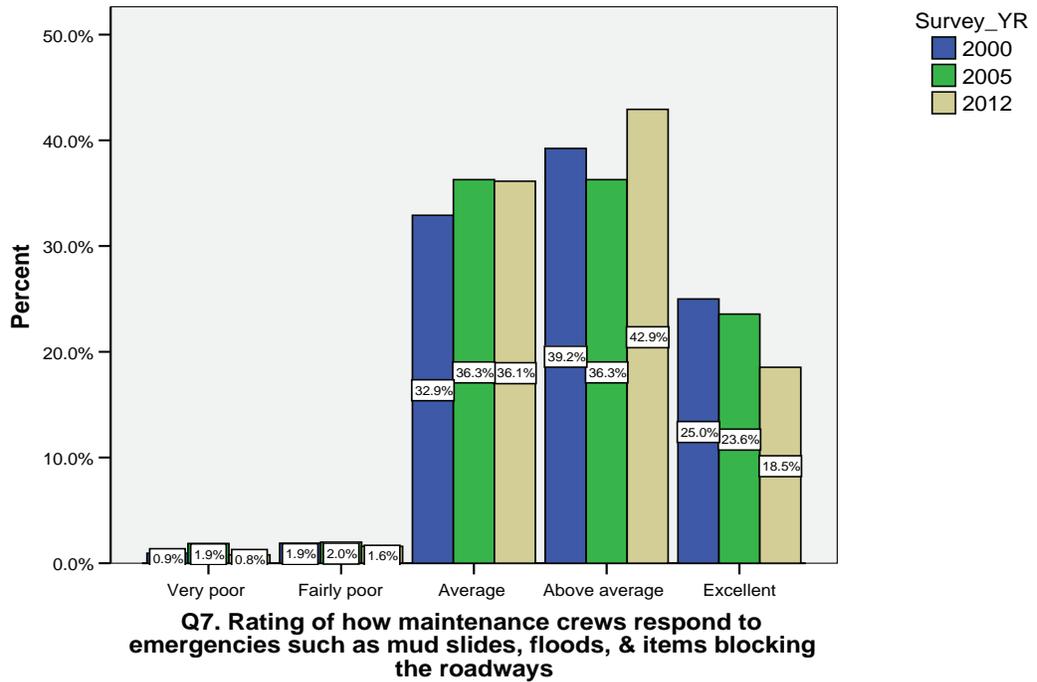


Response to Emergencies Rated Highly

This question asked respondents to rate the way State maintenance crews responded to emergencies (such as mud slides, floods, and items blocking the roadway). Almost a fifth (19%), reported emergency response to be *excellent*, with another 43 percent reported it was *above average*. Less than 3 percent rated emergency response to be *fairly poor* or *very poor*.

The overall rating of maintenance crews’ response to emergencies decreased slightly from 2000 to 2012.³⁹

Chart 7 - Rating of Maintenance Crews Handling of Emergencies



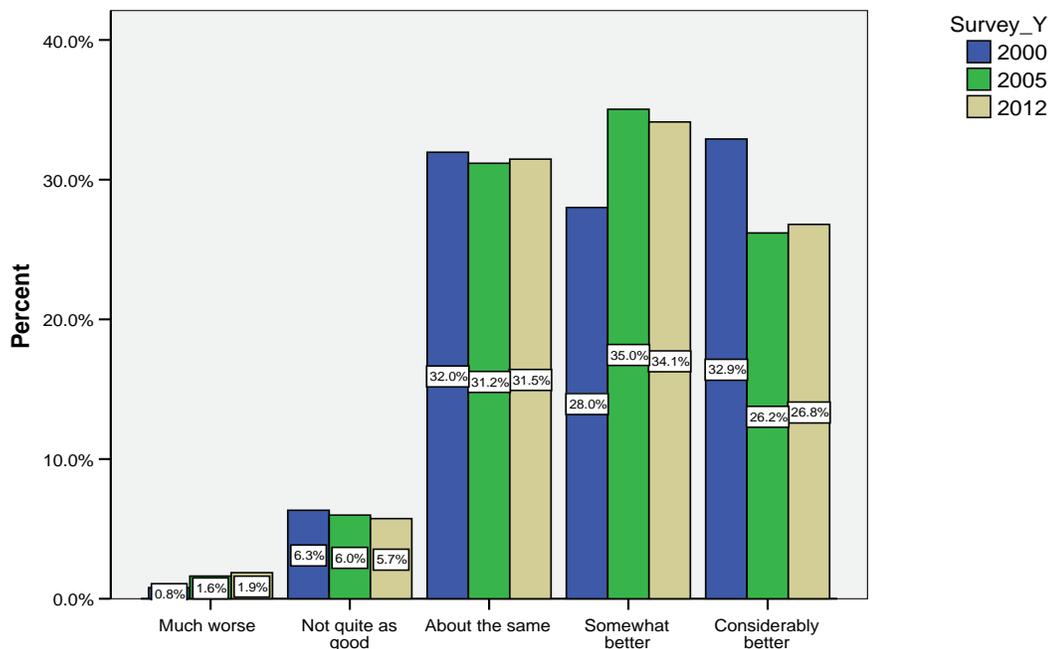
E. State Highways Compared to Local Roads and Other State Highways

Majority Rates State Highways Better Maintained than Local Roads

Statewide, well more than half of respondents (62%) thought state highways were better maintained than local roads, with more than a quarter (27%) rating them *considerably better*. About 8 percent rated state highway maintenance either *not quite as good or much worse*.

The overall rating of maintenance of Washington state highways compared to local roads decreased slightly from 2000 to 2012⁴⁰, especially among females.⁴¹

Chart 8 - Maintenance of Highways Compared to Local Roads



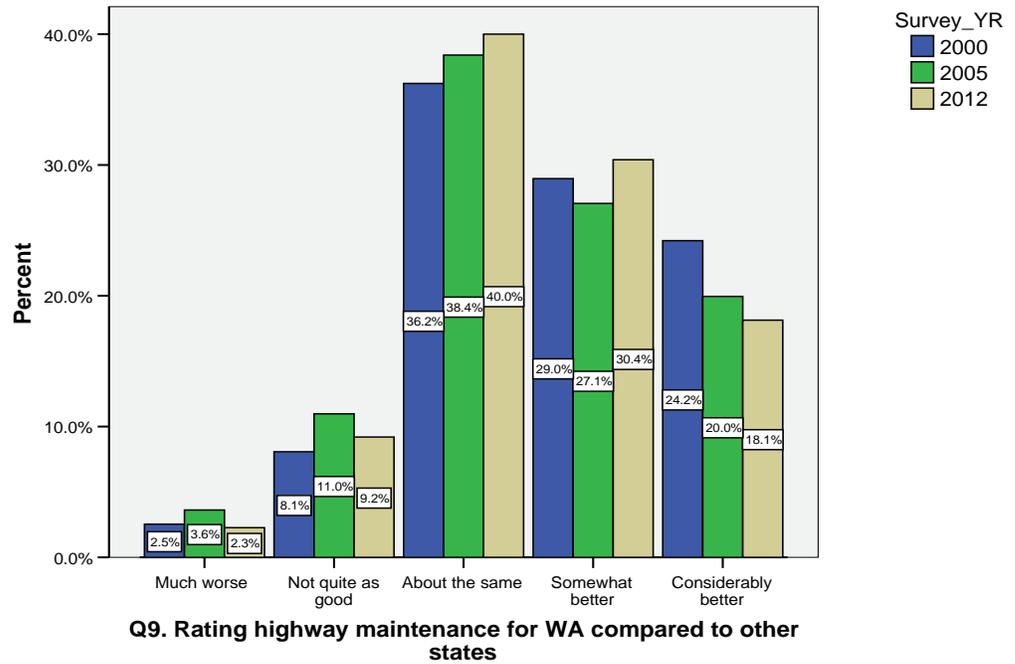
Q8. Highway maintenance compared to the maintenance of local roads and streets in your area

Maintenance of WA State Highways Rated Better than Other States by Almost Half

Almost half (49%) of respondents statewide thought that maintenance of state highways in Washington were better than maintenance of other states’ highways, with almost a fifth (18%) rating them *considerably better*. However, almost 12 percent rated maintenance of Washington state highways *not quite as good* or *much worse*.

Those in western non-urban Washington rated maintenance of Washington state highways compared with other states better than those respondents in the eastern and western urban areas,⁴² especially among those who lived in suburban and small town or rural areas.⁴³

Chart 9 - Maintenance of WA Highways Compared to Other States

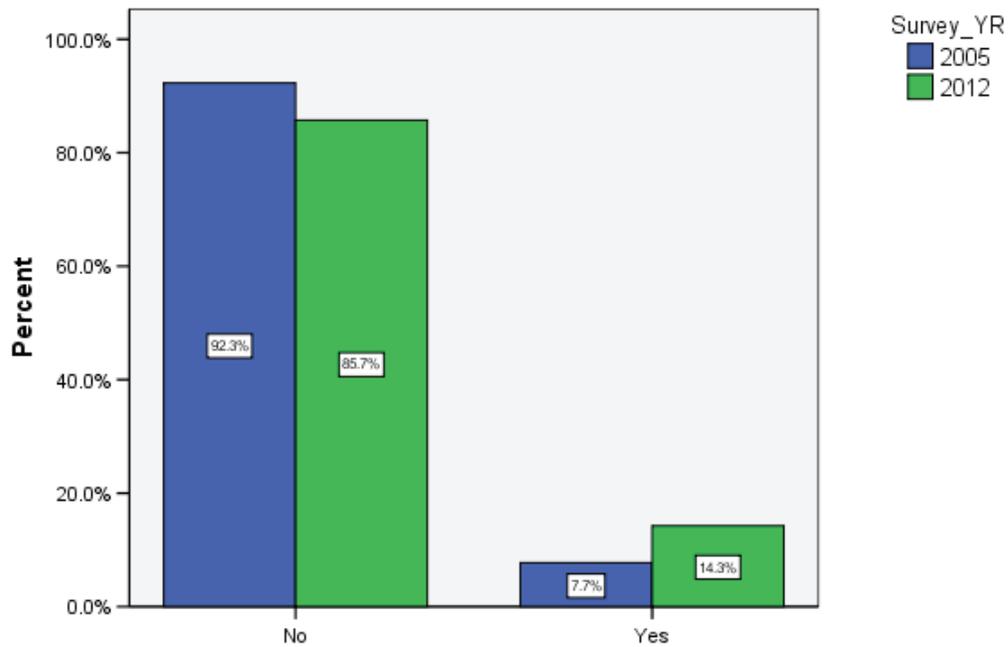


F. Initiating Contact with WSDOT about Maintenance Issues

Only 14 percent had ever contacted WSDOT (either by telephone or e-mail) about highway maintenance issues. Of those who have contacted WSDOT, well more than half (62%) reported being satisfied with WSDOT’s response. However, more than a third (34%) of those who contacted WSDOT were not satisfied.

The percent of respondents who reported contacting WSDOT about maintenance issues almost doubled from 2005 (8%) to 2012 (14%)⁴⁴, more so among those who drove 251 or more miles a month on state highways.⁴⁵

Chart 10 - Ever Contacted WSDOT About Maintenance Issue?



Q10. Have you ever called or e-mailed WSDOT about a highway maintenance issue?

Appendix A: Final Survey Questions

WSDOT MAINTNENACE CUSTOMER SURVEY QUESTIONNAIRE -2012

Hello, I'm calling for the Washington State Department of Transportation to learn more about public perceptions and attitudes concerning highway maintenance in the State of Washington. We are talking with Washington citizens about the condition of highways that are maintained by the State. These State highways include U.S., Interstate, and State Routes, but not the arterials and streets maintained by cities and counties.

This survey is not about the construction of highways, congestion, or if we need more lanes.

I assure you we are only seeking opinions and there will be no attempt to sell you anything or solicit a donation. Your answers will be completely anonymous and the survey should take no more than 12 minutes of your time.

Do you travel at least 50 miles a week in a motor vehicle on a State Highway? (IF NOT, ASK IF YOU MAY TALK WITH SOMEONE ELSE IN THE HOUSE WHO DOES)

SCREENER QUESTIONS

Does anyone in your household or family work for the Washington State Department of Transportation?

- a. No
- b. Yes (thank and terminate)

1 a. Does your household have:

1. Just a landline phone (skip to Q19)
2. Just a cell phone(s)(skip to Q19)
3. Both landline and cell phones
4. Refused

1b. Would you say:

1. most calls are taken on the cell phones (count toward cell phone quota)
2. most calls are taken on the landline (count toward landline quota)
3. calls are taken about equally on both (count toward landline quota)
4. Refused

OK, let's get started.

2. Highway maintenance involves activities such as patching potholes, maintaining signs and signals, doing snow and ice removal, and picking up litter. Thinking about the State highways you have recently traveled on, are you generally satisfied with the level of maintenance of these highways?

- a. Yes SKIP TO QUESTION 3
- b. No
- c. Not sure

2b. What would you like to see improved? (DON'T READ LIST; PROBE)

- a. Roadway surface - potholes, cracks, rough roads
- b. Signs, signals, lane striping, lighting, reflectors in poor condition
- c. Snow/ice removal not done effectively
- d. Rest areas not well-maintained
- e. Poor drainage
- f. Litter, debris, overgrown vegetation
- g. Other (please specify _____)

3. I am going to read through a list of categories concerning the level of maintenance of highways in the State. For each category, I would like you to rate your current level of satisfaction or dissatisfaction on a scale of one to four. One would mean that you are extremely dissatisfied, two means that you are dissatisfied, three means that you are satisfied, and four means that you are extremely satisfied.

After you rate your current level of satisfaction for a maintenance category, I'm going to then ask you to rate the importance of that category to you. For each category, I would like you to rate how important the category is to you on a scale of one to four. One would mean that it is extremely unimportant, two means that it is unimportant, three means that it is important, and four means that it is extremely important. The relative importance of different maintenance categories is useful when making decisions on utilizing limited funds. As you consider the importance rating, you may want to think of it in terms of "if I had \$200 worth of work to do but only \$100 to spend, which work activities would I spend the money on and which would not get accomplished"

ROTATE A-K

- a. How about the roadway surfaces, in general, where maintenance efforts focus on patching potholes, sealing cracks in the pavement, and repairing other minor flaws in the pavement surface. On the scale from one to four, how satisfied are you with the maintenance level of roadway surfaces on state highways?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining roadway surfaces?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

- b. What is your level of satisfaction with how well drainage is handled on the highways?

This relates to how well stormwater drains from the highway surface so that no puddles form.

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining drainage features?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

- c. What is your level of satisfaction with the level of litter and trash removal from the roadside?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of removing litter from the roadside?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

- d. What is your level of satisfaction with how the plants, grasses, and flowers by the roadside appear?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining roadside vegetation?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

e. How about your level of satisfaction with snow and ice removal?
1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of snow and ice removal activities?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

f. How would you rate your level of satisfaction with road stripes and pavement markings?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining road stripes and pavement markings?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

h. What is your level of satisfaction with how roadway signs are maintained?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining roadway signs?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

i. How about your level of satisfaction with how well guardrail is maintained?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining guardrail?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

j. How satisfied are you with the traffic signals on the highway system?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining traffic signals?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

k. How would you rate your level of satisfaction with how well highway lighting works?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining highway lighting?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

l. How satisfied are you with the maintenance of rest areas.?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

And the importance of maintaining rest areas?

1 2 3 4 5 (DON'T KNOW/NOT SURE - DO NOT READ)

(PROGRAMMING NOTE: LOOKING AT THE LIST OF THIRTEEN ITEMS, NOTE THE TWO WHICH HAVE THE LOWEST RATINGS. IF MORE THAN TWO, SELECT THE FIRST TWO LOWEST. THEN ROTATE EACH TIME THIS OCCURS. IF EVERYTHING IS RATED A ONE, SKIP TO QUESTION 6.

4a. I notice you gave _____ one of the lower satisfaction ratings
(MARK FROM ABOVE)

- a. roadway surfaces
- b. drainage facilities
- c. litter
- d. roadside vegetation
- e. snow and ice removal
- f. road stripes and pavement marking
- g. roadway signs
- h. guardrail
- i. traffic signals
- j. highway lighting
- k. rest areas

4b. What needs to be improved?

5a. And how about _____ (MARK FROM ABOVE)

- a. roadway surfaces
- b. drainage facilities
- c. litter
- d. roadside vegetation
- e. snow and ice removal
- f. road stripes and pavement marking
- g. roadway signs
- h. guardrail
- i. traffic signals
- j. highway lighting
- k. rest areas

5b. What needs to be improved?

6. Thinking about all of the different State highway maintenance activities we've talked about, overall would you rate maintenance of the Washington highways as: (READ)

- a. Excellent
- b. Above average
- c. Average
- d. Fairly poor or
- e. Very poor

7. How would you rate the way State highway maintenance crews respond to emergencies such as mud slides, floods, and items blocking the roadways? Would you say they are usually: (READ LIST)

- a. Excellent
- b. Above average
- c. Average
- d. Fairly poor or
- e. Very poor

8. Compared to the maintenance of local roads and streets in your area, would you say the maintenance of State highways is... (READ)

- a. Considerably better
- b. Somewhat better
- c. About the same
- d. Not quite as good
- e. Much worse

9. And how would you rate the level of maintenance for Washington State highways in comparison to highways in other states? Would you say they are:
(READ)

- a. Considerably better
- b. Somewhat better
- c. About the same
- d. Not quite as good
- e. Much worse

10. Have you ever called or e-mailed the Washington State Department of Transportation about a highway maintenance issue?

YES NO (if no, skip to question 12)

11. If YES, were you satisfied with the response?

YES NO DON'T KNOW

Now, I would like to ask just a few more questions for statistical analysis purposes only. These answers will in no way be identified with your name.

12. Approximately how many miles do you travel on state highways per week? (DO NOT READ)

- a. 50-100 miles
- b. 101-150 miles
- c. 151-200 miles
- d. 201- 250 miles
- e. 251 or more miles

13. Approximately how many days per week do you use state highways? (DO NOT READ)

- a. 1 day
- b. 2 days
- c. 3 days
- d. 4 days
- e. 5 days
- f. 6 days
- g. 7days

14. How long have you been a resident of Washington State (DO NOT READ)

- a. Less than 6 months
- b. 6 months to 11 months
- c. 1 to 4 years
- d. 5 to 9 years
- e. 10 or more years

15. Do you live in a metropolitan area (SUCH AS SEATTLE, TACOMA, EVERETT, OLYMPIA, BELLEVUE, SPOKANE), a medium-sized suburban area (SUCH AS PORT ANGELES, YAKIMA, OR ELLENSBURG), or a small town or rural area?

- a. Metropolitan area
- b. Suburban
- c. Small town or rural

16. What is your home zip code?

17. How many working motor vehicles are in your household?

18. Is English the primary language spoken in your household?

- Yes (skip to 23)
- No (continue onto 21)
- Don't know (skip to Q 20)

19. What is the primary language spoken?

20. And finally, what is your age? (IF PERSON HESITATES, READ THE RANGES)

- a. Under 25
- b. 25-34
- c. 35-44
- d. 45-54
- e. 55-64
- f. 65-74
- g. 75 and older
- h. Refused

THANK YOU VERY MUCH FOR TAKING THE TIME TO RESPOND TO THIS SURVEY

(TO BE COMPLETED AFTER THE INTERVIEW)

21. Gender of respondent

- Male
- Female

22. RECORD COUNTY FROM SAMPLING LIST

Appendix B: Survey Questions Cross-tabbed by State Region

Q2. Are you generally satisfied with maintenance on state highways? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q2. Are you generally satisfied with maintenance on state highways?	No	Count % within Q25. Section of the State	61 24.4%	57 22.8%	63 25.2%	181 24.1%
	Yes	Count % within Q25. Section of the State	186 74.4%	188 75.2%	179 71.6%	553 73.7%
	Not sure	Count % within Q25. Section of the State	3 1.2%	5 2.0%	8 3.2%	16 2.1%
Total		Count % within Q25. Section of the State	250 100.0%	250 100.0%	250 100.0%	750 100.0%

Q3_a. Satisfaction with maintaining roadway surfaces * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_a. Satisfaction with maintaining roadway surfaces	Extremely dissatisfied	Count % within Q25. Section of the State	15 6.0%	19 7.6%	30 12.1%	64 8.6%
	Dissatisfied	Count % within Q25. Section of the State	72 28.8%	62 24.9%	75 30.2%	209 28.0%
	Satisfied	Count % within Q25. Section of the State	127 50.8%	126 50.6%	119 48.0%	372 49.8%
	Extremely satisfied	Count % within Q25. Section of the State	36 14.4%	42 16.9%	24 9.7%	102 13.7%
Total		Count % within Q25. Section of the State	250 100.0%	249 100.0%	248 100.0%	747 100.0%

Q3_aa. Importance of maintaining roadway surfaces * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_aa. Importance of maintaining roadway surfaces	Extremely unimportant	Count % within Q25. Section of the State	0 .0%	4 1.6%	1 .4%	5 .7%
	Unimportant	Count % within Q25. Section of the State	10 4.0%	9 3.6%	7 2.8%	26 3.5%
	Important	Count % within Q25. Section of the State	71 28.4%	68 27.2%	62 24.8%	201 26.8%
	Extremely important	Count % within Q25. Section of the State	169 67.6%	169 67.6%	180 72.0%	518 69.1%
Total		Count % within Q25. Section of the State	250 100.0%	250 100.0%	250 100.0%	750 100.0%

Q3_b. Satisfaction with maintaining drainage * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_b. Satisfaction with maintaining drainage	Extremely dissatisfied	Count % within Q25. Section of the State	14 5.6%	4 1.6%	12 4.8%	30 4.0%
	Dissatisfied	Count % within Q25. Section of the State	58 23.2%	40 16.2%	57 23.0%	155 20.8%
	Satisfied	Count % within Q25. Section of the State	118 47.2%	129 52.2%	121 48.8%	368 49.4%
	Extremely satisfied	Count % within Q25. Section of the State	60 24.0%	74 30.0%	58 23.4%	192 25.8%
Total		Count % within Q25. Section of the State	250 100.0%	247 100.0%	248 100.0%	745 100.0%

Q3_bb. Importance of maintaining drainage * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_bb. Importance of maintaining drainage	Extremely unimportant	Count % within Q25. Section of the State	1 .4%	1 .4%	2 .8%	4 .5%
	Unimportant	Count % within Q25. Section of the State	11 4.4%	24 9.6%	10 4.0%	45 6.0%
	Important	Count % within Q25. Section of the State	73 29.4%	77 30.9%	62 24.9%	212 28.4%
	Extremely important	Count % within Q25. Section of the State	163 65.7%	147 59.0%	175 70.3%	485 65.0%
Total		Count % within Q25. Section of the State	248 100.0%	249 100.0%	249 100.0%	746 100.0%

Q3_c. Satisfaction with litter and trash removal * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_c. Satisfaction with litter and trash removal	Extremely dissatisfied	Count % within Q25. Section of the State	13 5.2%	9 3.6%	11 4.4%	33 4.4%
	Dissatisfied	Count % within Q25. Section of the State	63 25.2%	41 16.5%	37 14.9%	141 18.9%
	Satisfied	Count % within Q25. Section of the State	120 48.0%	119 47.8%	141 56.6%	380 50.8%
	Extremely satisfied	Count % within Q25. Section of the State	54 21.6%	80 32.1%	60 24.1%	194 25.9%
Total		Count % within Q25. Section of the State	250 100.0%	249 100.0%	249 100.0%	748 100.0%

Q3_cc. Importance of litter and trash removal * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_cc. Importance of litter and trash removal	Extremely unimportant	Count	5	1	6	12
		% within Q25. Section of the State	2.0%	.4%	2.4%	1.6%
	Unimportant	Count	37	32	32	101
		% within Q25. Section of the State	14.8%	12.9%	12.8%	13.5%
	Important	Count	100	111	109	320
		% within Q25. Section of the State	40.0%	44.6%	43.6%	42.7%
	Extremely important	Count	108	105	103	316
		% within Q25. Section of the State	43.2%	42.2%	41.2%	42.2%
Total		Count	250	249	250	749
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_d. Satisfaction with how plants, grasses, and flowers by roadside appear * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_d. Satisfaction with how plants, grasses, and flowers by roadside appear	Extremely dissatisfied	Count	9	19	16	44
		% within Q25. Section of the State	3.6%	7.8%	6.5%	6.0%
	Dissatisfied	Count	44	46	50	140
		% within Q25. Section of the State	17.8%	18.9%	20.4%	19.0%
	Satisfied	Count	136	138	116	390
		% within Q25. Section of the State	55.1%	56.6%	47.3%	53.0%
	Extremely satisfied	Count	58	41	63	162
		% within Q25. Section of the State	23.5%	16.8%	25.7%	22.0%
Total		Count	247	244	245	736
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_dd. Importance of maintaining roadside vegetation * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_dd. Importance of maintaining roadside vegetation	Extremely unimportant	Count % within Q25. Section of the State	26 10.4%	18 7.3%	28 11.2%	72 9.7%
	Unimportant	Count % within Q25. Section of the State	62 24.9%	71 28.6%	73 29.3%	206 27.6%
	Important	Count % within Q25. Section of the State	108 43.4%	103 41.5%	96 38.6%	307 41.2%
	Extremely important	Count % within Q25. Section of the State	53 21.3%	56 22.6%	52 20.9%	161 21.6%
Total		Count % within Q25. Section of the State	249 100.0%	248 100.0%	249 100.0%	746 100.0%

Q3_e. Satisfaction with snow and ice removal * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_e. Satisfaction with snow and ice removal	Extremely dissatisfied	Count % within Q25. Section of the State	12 5.0%	11 4.5%	19 7.7%	42 5.7%
	Dissatisfied	Count % within Q25. Section of the State	38 15.7%	40 16.3%	42 17.1%	120 16.3%
	Satisfied	Count % within Q25. Section of the State	124 51.2%	108 43.9%	133 54.1%	365 49.7%
	Extremely satisfied	Count % within Q25. Section of the State	68 28.1%	87 35.4%	52 21.1%	207 28.2%
Total		Count % within Q25. Section of the State	242 100.0%	246 100.0%	246 100.0%	734 100.0%

Q3_ee. Importance of snow and ice removal * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_ee. Importance of snow and ice removal	Extremely unimportant	Count	5	2	5	12
		% within Q25. Section of the State	2.0%	.8%	2.0%	1.6%
	Unimportant	Count	16	8	13	37
		% within Q25. Section of the State	6.5%	3.2%	5.2%	5.0%
Important	Count	64	43	77	184	
	% within Q25. Section of the State	25.9%	17.3%	30.8%	24.7%	
Extremely important	Count	162	195	155	512	
	% within Q25. Section of the State	65.6%	78.6%	62.0%	68.7%	
Total		Count	247	248	250	745
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_f. Satisfaction with road stripes and pavement markings * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_f. Satisfaction with road stripes and pavement markings	Extremely dissatisfied	Count	11	13	19	43
		% within Q25. Section of the State	4.4%	5.2%	7.6%	5.7%
	Dissatisfied	Count	44	55	76	175
		% within Q25. Section of the State	17.6%	22.0%	30.4%	23.3%
Satisfied	Count	142	119	113	374	
	% within Q25. Section of the State	56.8%	47.6%	45.2%	49.9%	
Extremely satisfied	Count	53	63	42	158	
	% within Q25. Section of the State	21.2%	25.2%	16.8%	21.1%	
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_ff. Importance of maintaining road stripes and pavement markings * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_ff. Importance of maintaining road stripes and pavement markings	Extremely unimportant	Count % within Q25. Section of the State	0 .0%	3 1.2%	4 1.6%	7 .9%
	Unimportant	Count % within Q25. Section of the State	11 4.4%	8 3.2%	6 2.4%	25 3.3%
	Important	Count % within Q25. Section of the State	72 28.8%	71 28.4%	68 27.3%	211 28.2%
	Extremely important	Count % within Q25. Section of the State	167 66.8%	168 67.2%	171 68.7%	506 67.6%
Total	Count % within Q25. Section of the State	250 100.0%	250 100.0%	249 100.0%	749 100.0%	

Q3_g. Satisfaction with how roadway signs are maintained * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_g. Satisfaction with how roadway signs are maintained	Extremely dissatisfied	Count % within Q25. Section of the State	5 2.0%	1 .4%	4 1.6%	10 1.3%
	Dissatisfied	Count % within Q25. Section of the State	19 7.6%	18 7.2%	26 10.5%	63 8.4%
	Satisfied	Count % within Q25. Section of the State	137 55.0%	124 49.8%	122 49.2%	383 51.3%
	Extremely satisfied	Count % within Q25. Section of the State	88 35.3%	106 42.6%	96 38.7%	290 38.9%
Total	Count % within Q25. Section of the State	249 100.0%	249 100.0%	248 100.0%	746 100.0%	

Q3_gg. Importance of maintaining roadway signs * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_gg. Importance of maintaining roadway signs	Extremely unimportant	Count	3	4	5	12
		% within Q25. Section of the State	1.2%	1.6%	2.0%	1.6%
	Unimportant	Count	15	14	14	43
		% within Q25. Section of the State	6.0%	5.6%	5.6%	5.7%
Important	Count	86	82	96	264	
	% within Q25. Section of the State	34.4%	32.9%	38.4%	35.2%	
Extremely important	Count	146	149	135	430	
	% within Q25. Section of the State	58.4%	59.8%	54.0%	57.4%	
Total	Count	250	249	250	749	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q3_h. Satisfaction with how well guardrail is maintained * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_h. Satisfaction with how well guardrail is maintained	Extremely dissatisfied	Count	4	4	7	15
		% within Q25. Section of the State	1.6%	1.6%	2.9%	2.0%
	Dissatisfied	Count	22	19	21	62
		% within Q25. Section of the State	8.9%	7.6%	8.6%	8.4%
Satisfied	Count	129	123	131	383	
	% within Q25. Section of the State	52.4%	49.2%	53.7%	51.8%	
Extremely satisfied	Count	91	104	85	280	
	% within Q25. Section of the State	37.0%	41.6%	34.8%	37.8%	
Total	Count	246	250	244	740	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q3_hh. Importance of maintaining guardrail * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_hh. Importance of maintaining guardrail	Extremely unimportant	Count % within Q25. Section of the State	5 2.0%	3 1.2%	6 2.4%	14 1.9%
	Unimportant	Count % within Q25. Section of the State	19 7.6%	18 7.2%	23 9.2%	60 8.0%
	Important	Count % within Q25. Section of the State	83 33.2%	78 31.2%	92 36.9%	253 33.8%
	Extremely important	Count % within Q25. Section of the State	143 57.2%	151 60.4%	128 51.4%	422 56.3%
Total		Count % within Q25. Section of the State	250 100.0%	250 100.0%	249 100.0%	749 100.0%

Q3_i. Satisfaction with the traffic signals on highway system * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_i. Satisfaction with the traffic signals on highway system	Extremely dissatisfied	Count % within Q25. Section of the State	10 4.1%	4 1.7%	15 6.0%	29 4.0%
	Dissatisfied	Count % within Q25. Section of the State	28 11.6%	24 10.0%	26 10.4%	78 10.7%
	Satisfied	Count % within Q25. Section of the State	125 51.7%	143 59.8%	135 54.2%	403 55.2%
	Extremely satisfied	Count % within Q25. Section of the State	79 32.6%	68 28.5%	73 29.3%	220 30.1%
Total		Count % within Q25. Section of the State	242 100.0%	239 100.0%	249 100.0%	730 100.0%

Q3_ii. Importance of maintaining traffic signals * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_ii. Importance of maintaining traffic signals	Extremely unimportant	Count % within Q25. Section of the State	5 2.0%	2 .8%	5 2.0%	12 1.6%
	Unimportant	Count % within Q25. Section of the State	9 3.6%	17 6.9%	11 4.4%	37 5.0%
	Important	Count % within Q25. Section of the State	66 26.6%	63 25.4%	71 28.5%	200 26.8%
	Extremely important	Count % within Q25. Section of the State	168 67.7%	166 66.9%	162 65.1%	496 66.6%
Total		Count % within Q25. Section of the State	248 100.0%	248 100.0%	249 100.0%	745 100.0%

Q3_j. Satisfaction with how well highway lighting works * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_j. Satisfaction with how well highway lighting works	Extremely dissatisfied	Count % within Q25. Section of the State	6 2.5%	8 3.4%	11 4.5%	25 3.5%
	Dissatisfied	Count % within Q25. Section of the State	40 16.7%	34 14.5%	40 16.2%	114 15.8%
	Satisfied	Count % within Q25. Section of the State	131 54.8%	139 59.1%	133 53.8%	403 55.9%
	Extremely satisfied	Count % within Q25. Section of the State	62 25.9%	54 23.0%	63 25.5%	179 24.8%
Total		Count % within Q25. Section of the State	239 100.0%	235 100.0%	247 100.0%	721 100.0%

Q3_jj. Importance of maintaining highway lighting * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_jj. Importance of maintaining highway lighting	Extremely unimportant	Count	7	10	6	23
		% within Q25. Section of the State	2.8%	4.1%	2.4%	3.1%
	Unimportant	Count	30	30	20	80
		% within Q25. Section of the State	12.0%	12.2%	8.1%	10.8%
	Important	Count	83	76	89	248
		% within Q25. Section of the State	33.2%	31.0%	35.9%	33.4%
	Extremely important	Count	130	129	133	392
		% within Q25. Section of the State	52.0%	52.7%	53.6%	52.8%
Total		Count	250	245	248	743
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_k. Satisfaction with the maintenance of rest areas * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_k. Satisfaction with the maintenance of rest areas	Extremely dissatisfied	Count	3	8	9	20
		% within Q25. Section of the State	1.4%	3.4%	4.1%	3.0%
	Dissatisfied	Count	20	26	32	78
		% within Q25. Section of the State	9.2%	10.9%	14.4%	11.5%
	Satisfied	Count	115	127	102	344
		% within Q25. Section of the State	53.0%	53.4%	45.9%	50.8%
	Extremely satisfied	Count	79	77	79	235
		% within Q25. Section of the State	36.4%	32.4%	35.6%	34.7%
Total		Count	217	238	222	677
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q3_kk. Importance of maintaining rest areas * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q3_kk. Importance of maintaining rest areas	Extremely unimportant	Count	8	6	7	21
		% within Q25. Section of the State	3.3%	2.4%	2.8%	2.8%
	Unimportant	Count	25	21	35	81
		% within Q25. Section of the State	10.3%	8.5%	14.2%	11.0%
	Important	Count	100	100	100	300
		% within Q25. Section of the State	41.2%	40.3%	40.7%	40.7%
	Extremely important	Count	110	121	104	335
		% within Q25. Section of the State	45.3%	48.8%	42.3%	45.5%
Total	Count	243	248	246	737	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q4b and Q5b - Improvements needed by Region

		Q25. Section of the State			Total	
		WESTERN NON-URBAN	EASTERN	WESTERN URBAN		
\$improvements4b5b	Lighting/better headlights/more lighting	Count	36	30	31	97
		Column %	14.4	12.0	12.4	12.9
	Signs/additional signs/signs in poor condition	Count	22	22	20	64
		Column %	8.8	8.8	8.0	8.5
	Lane lines/ hard to see/ in poor condition/need more	Count	49	52	67	168
		Column %	19.6	20.8	26.8	22.4
	Traffic signals/need more traffic signals/timing of traffic signals	Count	8	13	10	31
		Column %	3.2	5.2	4.0	4.1
	Better guardrails/additional guardrails	Count	12	9	8	29
		Column %	4.8	3.6	3.2	3.9
	Less traffic signals/too many traffic signals in unnecessary areas	Count	1	1	2	4
		Column %	.4	.4	.8	.5
	Maintenance/better up keep (non specific)	Count	17	36	32	85
		Column %	6.8	14.4	12.8	11.3
	Roadway surface/potholes/cracks/rough roads	Count	79	87	86	252
		Column %	31.6	34.8	34.4	33.6
	Snow removal/ice removal/more plows/faster removal	Count	24	34	24	82
		Column %	9.6	13.6	9.6	10.9
	Weeds and vegetation/overgrown/get rid of weeds	Count	36	37	32	105
		Column %	14.4	14.8	12.8	14.0
	Litter/debris/people picking up litter on side of roads	Count	49	37	32	118
		Column %	19.6	14.8	12.8	15.7
	Cleanliness/clean it up/get rid of the graffiti	Count	32	30	39	101
		Column %	12.8	12.0	15.6	13.5
	More plants/maintain plants	Count	6	10	3	19
		Column %	2.4	4.0	1.2	2.5
	Traffic/congestion	Count	7	3	4	14
		Column %	2.8	1.2	1.6	1.9
	Water drainage/better drainage to help with standing water	Count	45	25	40	110
		Column %	18.0	10.0	16.0	14.7
	Do it faster/more often (non-specific)	Count	5	6	8	19
		Column %	2.0	2.4	3.2	2.5
	More (non specific)	Count	7	11	8	26
		Column %	2.8	4.4	3.2	3.5
	Rest areas/cleaner rest stops/additional rest stops	Count	2	4	2	8
		Column %	.8	1.6	.8	1.1
	Other	Count	26	19	20	65
		Column %	10.4	7.6	8.0	8.7
	None/nothing/don't want money spent on improvements/no further improvements are needed	Count	56	59	55	170
		Column %	22.4	23.6	22.0	22.7
	Don't know	Count		2	2	4
		Column %		.8	.8	.5
Total	Count		250	250	250	750
	Column %		100.0	100.0	100.0	100.0

Q6. Overall rating of maintenance of state highways * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q6. Overall rating of maintenance of state highways	Very poor	Count	5	3	8	16
		% within Q25. Section of the State	2.0%	1.2%	3.2%	2.1%
	Fairly poor	Count	15	11	20	46
		% within Q25. Section of the State	6.0%	4.4%	8.0%	6.1%
	Average	Count	99	95	107	301
% within Q25. Section of the State	39.6%	38.0%	42.8%	40.1%		
Above average	Count	114	120	106	340	
	% within Q25. Section of the State	45.6%	48.0%	42.4%	45.3%	
Excellent	Count	17	21	9	47	
	% within Q25. Section of the State	6.8%	8.4%	3.6%	6.3%	
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q7. Rating of how maintenance crews respond to emergencies such as mud slides, floods, & items blocking the roadway * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q7. Rating of how maintenance crews respond to emergencies such as mud slides, floods, & items blocking the roadways	Very poor	Count	3	1	2	6
		% within Q25. Section of the State	1.2%	.4%	.8%	.8%
	Fairly poor	Count	6	3	3	12
		% within Q25. Section of the State	2.4%	1.2%	1.2%	1.6%
	Average	Count	84	90	97	271
% within Q25. Section of the State	33.6%	36.0%	38.8%	36.1%		
Above average	Count	103	110	109	322	
	% within Q25. Section of the State	41.2%	44.0%	43.6%	42.9%	
Excellent	Count	54	46	39	139	
	% within Q25. Section of the State	21.6%	18.4%	15.6%	18.5%	
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q8. Highway maintenance compared to the maintenance of local roads and streets in your area * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q8. Highway maintenance compared to the maintenance of local roads and streets in your area	Much worse	Count	4	2	8	14
		% within Q25. Section of the State	1.6%	.8%	3.2%	1.9%
	Not quite as good	Count	17	11	15	43
		% within Q25. Section of the State	6.8%	4.4%	6.0%	5.7%
	About the same	Count	74	78	84	236
	% within Q25. Section of the State	29.6%	31.2%	33.6%	31.5%	
	Somewhat better	Count	90	76	90	256
	% within Q25. Section of the State	36.0%	30.4%	36.0%	34.1%	
	Considerably better	Count	65	83	53	201
	% within Q25. Section of the State	26.0%	33.2%	21.2%	26.8%	
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q9. Rating highway maintenance for WA compared to other states * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q9. Rating highway maintenance for WA compared to other states	Much worse	Count	2	4	11	17
		% within Q25. Section of the State	.8%	1.6%	4.4%	2.3%
	Not quite as good	Count	20	22	27	69
		% within Q25. Section of the State	8.0%	8.8%	10.8%	9.2%
	About the same	Count	84	108	108	300
	% within Q25. Section of the State	33.6%	43.2%	43.2%	40.0%	
	Somewhat better	Count	82	73	73	228
	% within Q25. Section of the State	32.8%	29.2%	29.2%	30.4%	
	Considerably better	Count	62	43	31	136
	% within Q25. Section of the State	24.8%	17.2%	12.4%	18.1%	
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q10. Have you ever called or e-mailed WSDOT about a highway maintenance issue? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q10. Have you ever called or e-mailed WSDOT about a highway maintenance issue?	No	Count	219	207	217	643
		% within Q25. Section of the State	87.6%	82.8%	86.8%	85.7%
	Yes	Count	31	43	33	107
		% within Q25. Section of the State	12.4%	17.2%	13.2%	14.3%
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q11. Were you satisfied with the response? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q11. Were you satisfied with the response?	No	Count	11	16	9	36
		% within Q25. Section of the State	37.9%	37.2%	30.0%	35.3%
	Yes	Count	18	27	21	66
		% within Q25. Section of the State	62.1%	62.8%	70.0%	64.7%
Total		Count	29	43	30	102
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q12. How many miles do you travel on state highways per week? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q12. How many miles do you travel on state highways per week?	50 - 100 miles	Count	96	115	130	341
		% within Q25. Section of the State	38.4%	46.0%	52.0%	45.5%
	101 - 150 miles	Count	26	29	25	80
		% within Q25. Section of the State	10.4%	11.6%	10.0%	10.7%
	151 - 200 miles	Count	44	27	29	100
		% within Q25. Section of the State	17.6%	10.8%	11.6%	13.3%
	201 - 250 miles	Count	13	16	10	39
		% within Q25. Section of the State	5.2%	6.4%	4.0%	5.2%
	251 or more miles	Count	71	63	56	190
		% within Q25. Section of the State	28.4%	25.2%	22.4%	25.3%
Total	Count	250	250	250	750	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q13. Approximately how many days per week do you use state highways? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q13. Approximately how many days per week do you use state highways?	1 day	Count % within Q25. Section of the State	12 4.8%	18 7.2%	10 4.0%	40 5.3%
	2 days	Count % within Q25. Section of the State	31 12.4%	32 12.8%	24 9.6%	87 11.6%
	3 days	Count % within Q25. Section of the State	27 10.8%	41 16.4%	33 13.2%	101 13.5%
	4 days	Count % within Q25. Section of the State	34 13.6%	21 8.4%	30 12.0%	85 11.3%
	5 days	Count % within Q25. Section of the State	51 20.4%	49 19.6%	59 23.6%	159 21.2%
	6 days	Count % within Q25. Section of the State	39 15.6%	24 9.6%	40 16.0%	103 13.7%
	7 days	Count % within Q25. Section of the State	56 22.4%	65 26.0%	54 21.6%	175 23.3%
Total	Count % within Q25. Section of the State	250 100.0%	250 100.0%	250 100.0%	750 100.0%	

Q14. How long have you been a resident of Washington State? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q14. How long have you been a resident of Washington State?	Less than 6 months	Count	1	4	2	7
		% within Q25. Section of the State	.4%	1.6%	.8%	.9%
	6 months to 11 months	Count	1	1	1	3
		% within Q25. Section of the State	.4%	.4%	.4%	.4%
	1 to 4 years	Count	12	9	10	31
	% within Q25. Section of the State	4.8%	3.6%	4.0%	4.1%	
	5 to 9 years	Count	23	16	8	47
	% within Q25. Section of the State	9.2%	6.4%	3.2%	6.3%	
	10 or more years	Count	213	220	229	662
	% within Q25. Section of the State	85.2%	88.0%	91.6%	88.3%	
Total	Count	250	250	250	750	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q15. Type of area you live in * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q15. Type of area you live in	Metropolitan	Count	18	17	85	120
		% within Q25. Section of the State	7.2%	6.8%	34.0%	16.0%
	Suburban	Count	43	42	72	157
	% within Q25. Section of the State	17.2%	16.8%	28.8%	20.9%	
	Small town or rural	Count	189	191	93	473
	% within Q25. Section of the State	75.6%	76.4%	37.2%	63.1%	
Total	Count	250	250	250	750	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q17. Does your household have: * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q17. Does your household have:	Just a landline phone	Count	45	39	22	106
		% within Q25. Section of the State	18.0%	15.6%	8.8%	14.1%
	Just a cell phone(s)	Count	16	13	16	45
		% within Q25. Section of the State	6.4%	5.2%	6.4%	6.0%
	Both landline and cell phones	Count	189	198	212	599
		% within Q25. Section of the State	75.6%	79.2%	84.8%	79.9%
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q18. Would you say: * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q18. Would you say:	most calls are taken on the cell phones	Count	50	51	73	174
		% within Q25. Section of the State	26.5%	25.8%	34.4%	29.0%
	most calls are taken on the landline	Count	70	78	53	201
		% within Q25. Section of the State	37.0%	39.4%	25.0%	33.6%
	calls are taken about equally on both	Count	69	69	86	224
		% within Q25. Section of the State	36.5%	34.8%	40.6%	37.4%
Total		Count	189	198	212	599
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

**Q19. How many working motor vehicles are in your household? * Q25. Section of the State
Crosstabulation**

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q19. How many working motor vehicles are in your household?	0	Count	3	3	0	6
		% within Q25. Section of the State	1.2%	1.2%	.0%	.8%
	1	Count	55	50	54	159
		% within Q25. Section of the State	22.0%	20.0%	21.6%	21.2%
	2	Count	87	94	100	281
		% within Q25. Section of the State	34.8%	37.6%	40.0%	37.5%
	3	Count	60	53	61	174
		% within Q25. Section of the State	24.0%	21.2%	24.4%	23.2%
	4	Count	24	27	20	71
		% within Q25. Section of the State	9.6%	10.8%	8.0%	9.5%
	5	Count	11	11	5	27
	% within Q25. Section of the State	4.4%	4.4%	2.0%	3.6%	
6	Count	3	5	7	15	
	% within Q25. Section of the State	1.2%	2.0%	2.8%	2.0%	
7	Count	1	2	3	6	
	% within Q25. Section of the State	.4%	.8%	1.2%	.8%	
8	Count	3	2	0	5	
	% within Q25. Section of the State	1.2%	.8%	.0%	.7%	
9	Count	1	0	0	1	
	% within Q25. Section of the State	.4%	.0%	.0%	.1%	
10	Count	2	3	0	5	
	% within Q25. Section of the State	.8%	1.2%	.0%	.7%	
Total	Count	250	250	250	750	
	% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%	

Q20. Is English the primary language spoken in this household? * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q20. Is English the primary language spoken in this household?	No	Count % within Q25. Section of the State	1 .4%	1 .4%	5 2.0%	7 .9%
	Yes	Count % within Q25. Section of the State	249 99.6%	248 99.6%	245 98.0%	742 99.1%
Total		Count % within Q25. Section of the State	250 100.0%	249 100.0%	250 100.0%	749 100.0%

Q21. What is the primary language spoken? * Q25. Section of the State Crosstabulation

		Q25. Section of the State			Total	
		WESTERN NON-URBAN	EASTERN	WESTERN URBAN		
Q21. What is the primary language spoken?		Count % within Q25. Section of the State	249 99.6%	249 99.6%	245 98.0%	743 99.1%
	ARABIC	Count % within Q25. Section of the State	0 .0%	0 .0%	1 .4%	1 .1%
	BOSNIAN	Count % within Q25. Section of the State	0 .0%	0 .0%	1 .4%	1 .1%
	GERMAN	Count % within Q25. Section of the State	1 .4%	0 .0%	0 .0%	1 .1%
	SPANISH	Count % within Q25. Section of the State	0 .0%	1 .4%	1 .4%	2 .3%
	TAGALOG	Count % within Q25. Section of the State	0 .0%	0 .0%	1 .4%	1 .1%
	TAGALOG AND ENGLISH	Count % within Q25. Section of the State	0 .0%	0 .0%	1 .4%	1 .1%
Total		Count % within Q25. Section of the State	250 100.0%	250 100.0%	250 100.0%	750 100.0%

Q22. Age * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q22. Age	Under 25	Count	7	8	21	36
		% within Q25. Section of the State	2.8%	3.3%	8.5%	4.9%
	25 - 34	Count	18	19	20	57
		% within Q25. Section of the State	7.3%	7.7%	8.1%	7.7%
	35 - 44	Count	28	33	24	85
		% within Q25. Section of the State	11.3%	13.4%	9.7%	11.5%
	45 - 54	Count	37	45	52	134
		% within Q25. Section of the State	14.9%	18.3%	21.1%	18.1%
	55 - 64	Count	63	69	66	198
		% within Q25. Section of the State	25.4%	28.0%	26.7%	26.7%
	65 - 74	Count	60	48	42	150
		% within Q25. Section of the State	24.2%	19.5%	17.0%	20.2%
	75 and older	Count	35	24	22	81
		% within Q25. Section of the State	14.1%	9.8%	8.9%	10.9%
Total		Count	248	246	247	741
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Q22. Gender * Q25. Section of the State Crosstabulation

			Q25. Section of the State			Total
			WESTERN NON-URBAN	EASTERN	WESTERN URBAN	
Q24. Gender	Male	Count	131	110	131	372
		% within Q25. Section of the State	52.4%	44.0%	52.4%	49.6%
	Female	Count	119	140	119	378
		% within Q25. Section of the State	47.6%	56.0%	47.6%	50.4%
Total		Count	250	250	250	750
		% within Q25. Section of the State	100.0%	100.0%	100.0%	100.0%

Endnotes

- ¹ Cramer's V = .178, p = .000
- ² Cramer's V = .133, p = .000
- ³ Cramer's V = .117, p = .000
- ⁴ Cramer's V = .113, p = .001
- ⁵ Cramer's V = .081, p = .000
- ⁶ Cramer's V = .047, p = .047
- ⁷ Cramer's V = .114, p = .008
- ⁸ Cramer's V = .091, p = .052
- ⁹ Cramer's V = .093, p = .047
- ¹⁰ Cramer's V = .107, p = .008
- ¹¹ Cramer's V = .099, p = .026
- ¹² Cramer's V = .113, p = .004
- ¹³ Cramer's V = .114, p = .003
- ¹⁴ Cramer's V = .137, p = .003
- ¹⁵ Cramer's V = .188, p = .000
- ¹⁶ Cramer's V = .125, p = .008
- ¹⁷ Cramer's V = .141, p = .002
- ¹⁸ Cramer's V = .144, p = .001
- ¹⁹ Cramer's V = .154, p = .001
- ²⁰ Cramer's V = .187, p = .000
- ²¹ Kendall's tau-c = .143, p = .000
- ²² Kendall's tau-c = .076, p = .007
- ²³ Kendall's tau-c = .105, p = .000
- ²⁴ Kendall's tau-c = .152, p = .000
- ²⁵ Cramer's V = .106, p = .011
- ²⁶ F = -9.877, p = .000
- ²⁷ F = 6.673, p = .001
- ²⁸ F = 6.840, p = .001
- ²⁹ F = 11.113, p = .000
- ³⁰ F = 8.017, p = .000
- ³¹ F = -3.8637.989, p = .000
- ³² F = 4.809, p = .008
- ³³ F = 10.503, p = .000
- ³⁴ F = 3.052, p = .047
- ³⁵ F = 4.718, p = .009
- ³⁶ F = 7.778, p = .000
- ³⁷ Cramer's V = .070, p = .007
- ³⁸ Cramer's V = .134, p = .009
- ³⁹ Cramer's V = .064, p = .024
- ⁴⁰ Cramer's V = .060, p = .044
- ⁴¹ Cramer's V = .127, p = .017
- ⁴² Cramer's V = .127, p = .002
- ⁴³ Cramer's V = .107, p = .027
- ⁴⁴ Cramer's V = .105, p = .000
- ⁴⁵ Kendall's tau-c = .060, p = .038

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