2004 TRAVELER OPINION AND PERCEPTION SURVEY

Summary Report

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by

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In November 2004 the Federal Highway Administration conducted the Traveler Opinion & Perception Survey (TOPS). This was a nationwide survey with the objective of understanding the needs and expectations of users of the nation's transportation system. To gain a better understanding of Oregonians' attitudes about the transportation system, the Oregon Department of Transportation (ODOT) funded additional interviews and expanded the survey to cover additional issues. This summary report presents findings of the Oregon survey, compared with results from the Pacific states and the nation as a whole. The report covers opinions on the following issues:

- What contributes to an effective and high quality transportation system;
- Satisfaction with the transportation system;
- Delays resulting from roadwork;
- Work zone management;
- Bridge conditions;
- Support for future transportation programs; and
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APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	millimeters squared	mm^2
ft^2	square feet	0.093	meters squared	m^2
yd^2	square yards	0.836	meters squared	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	kilometers squared	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	ml
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	meters cubed	m^3
yd^3	cubic yards	0.765	meters cubed	m^3
NOTE: Volumes greater than 1000 L shall be shown in m^3.				
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams	Mg
		TEMPERATURE (exact)		
°F	Fahrenheit	(F-32)/1.8	Celsius	°C

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	millimeters squared	0.0016	square inches	in^2
m^2	meters squared	10.764	square feet	ft^2
m^2	meters squared	1.196	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	kilometers squared	0.386	square miles	mi^2
		VOLUME		
ml	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	meters cubed	35.315	cubic feet	ft^3
m^3	meters cubed	1.308	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.205	pounds	lb
Mg	megagrams	1.102	short tons (2000 lb)	T
		TEMPERATURE (exact)		
°C	Celsius	1.8C+32	Fahrenheit	°F

*SI is the symbol for the International System of Measurement

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2004 TRAVELER OPINION AND PERCEPTION SURVEY
SUMMARY REPORT

TABLE OF CONTENTS

EXECUTIVE SUMMARY VII

1.0 INTRODUCTION AND BACKGROUND 1

2.0 AN EFFECTIVE AND HIGH QUALITY TRANSPORTATION SYSTEM 3

3.0 SATISFACTION WITH THE TRANSPORTATION SYSTEM 5

3.1 OVERALL SATISFACTION 5
3.2 SATISFACTION WITH ELEMENTS OF THE SYSTEM 6
3.3 OREGONIANS' VIEWS ON CHANGES IN SAFETY OF ROADS 6

4.0 DELAYS RESULTING FROM ROADWORK 9

4.1 EFFORTS TO REDUCE ROADWORK DELAY 9
4.2 OVERALL SATISFACTION WITH REDUCING ROADWORK DELAY 10

5.0 WORK ZONE MANAGEMENT 13

5.1 SATISFACTION WITH ELEMENTS OF WORK ZONE MANAGEMENT 13
5.2 OVERALL SATISFACTION WITH WORK ZONE MANAGEMENT 14
5.3 INFORMATION ABOUT ROADWAY CONSTRUCTION PROJECTS 15

6.0 BRIDGE CONDITIONS 17

7.0 FINANCING THE TRANSPORTATION SYSTEM 19

7.1 SUPPORT FOR FUTURE TRANSPORTATION PROGRAMS 19
7.2 VALUE OF THE SYSTEM FOR THE TAX DOLLAR 19
7.3 SOURCES OF FUNDS FOR TRANSPORTATION 20
7.4 FUNDING PRIORITIES 21

8.0 IMPACT OF TRANSPORTATION ON THE ENVIRONMENT 23

8.1 SATISFACTION WITH OVERALL IMPACT 23
8.2 SATISFACTION WITH SELECTED IMPACTS 24

9.0 CONCLUSION 25

List of Figures

Figure 3.1: Mean score for overall satisfaction with the transportation system....5
Figure 4.1: Percent of respondents giving a grade of 'B' or better for efforts to reduce delays from roadwork....10
Figure 4.2: Percent of respondents by ODOT region grading 'B' or better for efforts to reduce delays from roadwork....11
Figure 5.1: Percent of respondents giving a grade of 'B' or better for management of work zones....14
Figure 5.2: Percent of respondents by ODOT region grading 'B' or better for management of work zones....15
Figure 5.3: Satisfaction with public agencies keeping citizens informed....16
Figure 5.4: Preference of methods used for roadway construction updates....16
Figure 7.1: Perceptions of the value of the system for the tax dollar....20
Figure 7.2: Allocation of funds among roadway improvement options....22
Figure 8.1: Satisfaction with overall impact of transportation system on environment....23

List of Tables

Table 2.1: Importance of items in contributing to an effective and high quality transportation system....3
Table 3.1: Respondents grading 'B' or better for their region....6
Table 3.2: Oregonians' views on whether the roads and highways are becoming more dangerous....7
Table 3.3: Reasons given why Oregon roads and highways are becoming more dangerous....7
Table 4.1: Satisfaction on efforts and programs to reduce delays resulting from roadwork....9
Table 5.1: Satisfaction with elements of work zone management....13
Table 6.1: Satisfaction with bridge conditions....17
Table 7.1: Likelihood of support for future transportation programs and projects....19
Table 7.2: Perceptions of the sources of funds for transportation....20
Table 7.3: Level of support for options to finance transportation improvements....21
Table 8.1: Satisfaction with impacts of transportation on specific aspects of the environment....24
Table 8.2: Satisfaction with impacts of transportation on environment by ODOT region....24

EXECUTIVE SUMMARY

In November 2004 the Federal Highway Administration conducted the ***Traveler Opinion & Perception Survey (TOPS)***. This was a nationwide survey with the objective of understanding the needs and expectations of users of the nation's transportation system. To gain a better understanding of Oregonians' attitudes about the transportation system, the Oregon Department of Transportation (ODOT) funded additional interviews and expanded the survey to cover additional issues. Seven specific areas of opinion were addressed:

- What contributes to an effective and high quality transportation system;
- Satisfaction with the transportation system;
- Delays resulting from roadwork;
- Work zone management;
- Bridge conditions;
- Financing the transportation system; and
- Impact of transportation on the environment.

Findings of the Oregon survey compared with results from the Pacific states and the nation as a whole yielded the following observations:

- Oregonians, respondents in the Pacific Census Division, and respondents nationwide all said that *highway and roadway safety* was the most important factor contributing to an effective and high quality transportation system.

- While Oregonians were generally satisfied with most aspects of the transportation system, they gave the highest marks to the *management of work zones*, *traveler information*, and *bridge conditions*. They tended to give lower grades to *pavement conditions*, *efforts to reduce congestion*, and *transportation planning*.

- Oregonians tended to grade most elements of the transportation system as high as or higher than respondents in the Pacific states and the U.S. as a whole.

- A majority of Oregonians believed that roads and highways in the state were becoming more dangerous, due in large part to issues related to driver behavior and increased traffic and congestion.

- Oregonians expressed positive levels of satisfaction with all elements of managing delays from roadwork. Highest ratings statewide went to *making repairs during non-rush hour periods, including nights and weekends*; *number of flaggers with information signs*; and *the amount of time to clear accidents*. Six in ten Oregonians gave a grade of 'B' or better for their region's efforts and programs to reduce delays from roadwork. This was a

higher approval rating than that given by respondents from the rest of the country. Residents in ODOT Region 1 tended to give lower grades than respondents in other regions of the state.

- Oregonians expressed positive levels of satisfaction with all elements of work zone management, rating the following elements highest: *orange signs indicating ongoing construction*; *overall safety while traveling in work zones*; *safety features, such as visibility, lane widths, signs, and traffic speed*; and *detour signs and directions*. About two-thirds of Oregonians (66%) gave a grade of 'B' or better to the management of work zones. This grade was higher than those given by respondents from the Pacific states or those nationwide. Region 1 residents tended to grade the management of work zones lower than respondents in other ODOT regions.

- Eight out of ten Oregonians expressed satisfaction with how well public agencies keep citizens informed about roadway construction projects in their area. Radio, television and newspaper were all cited as important sources of information on roadway projects.

- Oregonians expressed positive levels of satisfaction with all elements of bridge conditions. The highest levels of satisfaction were with the *appearance*, *safety*, and *smoothness of ride* of bridges. Oregonians' satisfaction levels were similar to those of respondents in the Pacific states and in the nation as a whole.

- Oregonians expressed only tentative support for building or expanding various components of the transportation system, less than the Pacific states or the nation.

- When asked if they agreed or disagreed that they were getting their money's worth for their tax dollar to build and maintain their region's transportation infrastructure, Oregonians gave a middle-of-the-road response, with a '6', on a scale of '0' (*strongly disagree*) to '10'(*strongly agree*). This response was slightly more positive than the responses from the Pacific states or the nation as a whole.

- When Oregonians were asked about their level of support for various ways to finance highway construction and transportation improvements, a majority supported the use of the current methods of funding – vehicle registration fees and the fuel tax. No other funding methods received a majority of support.

- Given $100 to allocate among four major components of roadway improvement, Oregonians allocated the largest amounts to roadway pavement conditions and roadway safety features and lower amounts to environmental preservation and roadway beautification.

- Oregon respondents showed positive levels of satisfaction with the overall impact of the transportation system on the environment. They showed a slightly higher average level of satisfaction than did respondents in either the Pacific states or the nation. Within Oregon, the levels of satisfaction tended to be higher in rural regions than in urban regions.

1.0 INTRODUCTION AND BACKGROUND

This report is a summary of selected data taken from the ***Traveler Opinion & Perception Survey (TOPS)*** conducted in 2004 by the Northwest Research Group, Inc.[1] under the sponsorship of the Federal Highway Administration (FHWA). TOPS was a continuation of FHWA's National Quality Initiative (NQI) survey conducted in 1995 and a follow-on survey effort in 2000.

TOPS was a collaboration between the FHWA Office of Corporate and Professional Development and the five program offices at FHWA – Infrastructure, Operations, Safety, Federal Lands, and Planning, Environment and Realty. The study had the objective of understanding the needs and expectations of users of the nation's comprehensive transportation system and the extent to which the existing transportation system meets those needs. The study will be repeated about every five years.

The survey was conducted by telephone with a national sample of approximately 2,600 transportation system users. A transportation system user was defined as a randomly selected individual, 18 years of age or older, who had some recent experience traveling on the state's transportation system. The system includes highways, roads, public transportation, bikeways, walkways, and sidewalks. To gain a better understanding of Oregonians' attitudes about the transportation system, the Oregon Department of Transportation (ODOT) funded an additional 1,250 interviews and expanded the survey to cover additional issues.

The findings summarized in this report highlight seven specific areas of concern to Oregonians:

- What contributes to an effective and high quality transportation system;
- Satisfaction with the transportation system;
- Delays resulting from road work;
- Work zone management;
- Bridge conditions;
- Financing the transportation system; and
- Impact of transportation on the environment.

Comparisons are made between Oregon and the United States and between Oregon and the Pacific Census Division, which consists of the states of Alaska, California, Hawaii, Oregon and Washington.

Comparisons among ODOT Regions are also available, but with few exceptions, they are not included in this summary.

[1] Boise, Idaho

2.0 AN EFFECTIVE AND HIGH QUALITY TRANSPORTATION SYSTEM

The TOP Survey included a series of sixteen questions touching on a variety of topics, asking respondents how important each item was in "contributing to an effective and high quality transportation system." These questions used a scale from '0,' meaning *not at all important*, to '10,' meaning *extremely important*. The average (mean) scores for Oregon, the Pacific Census Division and the United States are shown in Table 2.1.

Table 2.1: Importance of items in contributing to an effective and high quality transportation system

Item	Mean Score on a Scale of 1-10 (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Highway and roadway safety	9.2	9.3	9.3
Ability to get where I need to go easily	8.6	8.8	8.8
Bridge conditions	8.5	8.8	8.8
Pavement conditions	8.5	8.6	8.6
Getting around as a pedestrian safely and easily	8.3	8.9	8.7
Efforts to improve flow of traffic	8.2	8.7	8.4
Planning for future transportation needs	8.2	8.8	8.6
Management of work zones	8.0	8.3	8.4
Efforts to reduce delays from congestion	8.0	8.6	8.4
Maintenance response times	7.8	8.4	8.3
Amenities such as rest areas	7.8	7.9	7.9
Consideration of the environment	7.6	8.4	8.2
Efforts to reduce delays from roadwork	7.3	8.1	8.0
Visual appeal/appearance of the highway	6.9	7.4	7.4
Traveler information	6.9	7.7	7.8
Getting around by bicycle safely and easily	6.6	7.6	7.2

Several observations may be made from these results:

- Items considered most important by Oregonians in contributing to an effective and high quality transportation system (with an average rating 8.5 or higher) included *highway and roadway safety*, *ability to get where I need to go easily*, *bridge conditions*, and *pavement conditions*.

- Various physical elements of the system (*bridge conditions* and *pavement conditions*), items related to safety (*highway and roadway safety* and *getting around as a pedestrian safely and easily*), and items related to system operations (*ability to get where I need to go easily, efforts to improve flow of traffic,* and *efforts to reduce delays from congestion*) were ranked highly in Oregon, the Pacific Census Division and the U.S., while some

ancillary elements of the system (*amenities such as rest areas, visual appeal/appearance,* and *traveler information*) ranked lower on the list.

- Oregonians consistently rated all sixteen elements about the same as or lower than respondents did in either the Pacific Census Division or in the U.S. as a whole.

- The relative agreement in the rankings between Oregon, the Pacific Census Division and the U.S. is noteworthy. For example, in all three geographic areas the most important factor in contributing to an effective and high quality transportation system was *highway and roadway safety*. At the other end of the scale, *being able to get around by bicycle safely and easily* was thought to contribute the least. In between these two extremes the relative rankings were also fairly similar.

- With every aspect of the transportation system, the Pacific Census Division opinions were more closely aligned with those of the nation, and the opinions of Oregonians tended to stand apart from these.

3.0 SATISFACTION WITH THE TRANSPORTATION SYSTEM

3.1 OVERALL SATISFACTION

Respondents were asked a general question about their satisfaction with the transportation system: "Overall, how satisfied are you with the transportation system in your region – including roads, streets and highways, public transportation, bikeways, walkways and sidewalks?" This question used a scale from '0,' meaning *not at all satisfied* to '10,' meaning *extremely satisfied*. The mean scores for the three groups are shown in Figure 3.1.

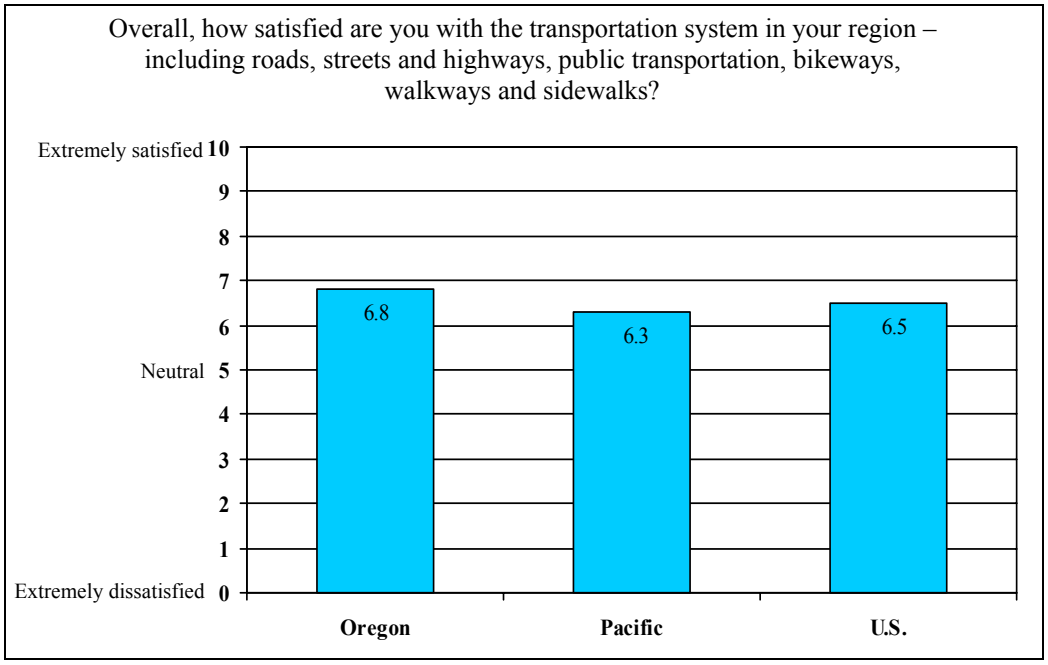

Figure 3.1: Mean score for overall satisfaction with the transportation system

Oregonians expressed moderate levels of satisfaction with the transportation system overall, with an average response of 6.8 on a scale of 0 to 10. The level of satisfaction was very similar among all three groups, with Oregon respondents expressing slightly higher satisfaction than respondents in the Pacific states or the nation as a whole.

Data for the five ODOT Regions on overall satisfaction with the transportation system (not shown here) revealed no statistically significant differences.

3.2 SATISFACTION WITH ELEMENTS OF THE SYSTEM

Respondents were also asked to give letter grades to several elements of their regional transportation system. The grades could range from 'A+' to 'F.' The percent of respondents in Oregon, the Pacific Census Division, and the United States giving a 'B' or better is shown in Table 3.1.

Table 3.1: Respondents grading 'B' or better for their region

Element of the Transportation System	Percent of Respondents Grading 'B' or Better (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Management of work zones	66	60	55
Traveler information	61	68	59
Bridge conditions	61	68	63
Roadway safety	59	62	58
Work to improve safety	56	56	55
Consideration of environment	56	56	52
Pavement conditions	52	46	46
Efforts to reduce congestion	50	50	49
Transportation planning	49	43	43

The following observations may be made from data presented in the table:

- Two-thirds of the Oregon respondents gave a grade of 'B' or better to the *management of work zones*, which was 6 percentage points higher than respondents from the Pacific Census Division and 11 points higher than respondents from the U.S. as a whole.

- Oregonians graded six of the nine elements of the transportation system as high as, or higher than, respondents in the Pacific states, and they graded eight of the nine elements as high as, or higher than, respondents in the U.S. as a whole.

- All three groups of respondents gave the lowest grades for *transportation planning* in their region.

3.3 OREGONIANS' VIEWS ON CHANGES IN SAFETY OF ROADS

The sample of Oregonians was asked two questions about the safety of roads and highways. Respondents were first asked their level of agreement with the statement: "Oregon roads and highways are becoming more dangerous." As shown in Table 3.2, a majority (57%) of Oregon residents statewide agreed (*somewhat agree* and *strongly agree*) that the state's roads and highways are becoming more dangerous. Opinions tended to vary markedly by ODOT region: in Regions 1 and 2 (primarily urban) 63% of respondents agreed with the statement, while in Region 5 (primarily rural) only 45% of respondents agreed.

Table 3.2: Oregonians' views on whether the roads and highways are becoming more dangerous

"Oregon roads and highways are becoming more dangerous."	Percent Response by ODOT Region*					Percent Response Statewide*
	Region 1	Region 2	Region 3	Region 4	Region 5	
Strongly agree	37	38	31	32	25	33
Somewhat agree	26	25	24	24	20	24
Neutral	1	3	3	1	3	2
Somewhat disagree	29	24	25	25	29	26
Strongly disagree	9	11	17	19	23	15

* Percentages may not total 100% due to rounding

The second question asked those respondents who agreed that the roads and highways are becoming more dangerous to give the reasons why they thought this was true. Table 3.3 shows the results statewide. Issues related to driver behavior and issues related to traffic and/or congestion were cited most frequently as the factors contributing to the roads and highways becoming more dangerous. The predominance of these reasons helps explain why more respondents in the urban regions saw the highways as becoming more dangerous.

Table 3.3: Reasons given why Oregon roads and highways are becoming more dangerous

Reason Given*	Percent of Total Responses
Issues related to driver behavior - Aggressive drivers / reckless drivers (careless) - Individuals not obeying speed limits - Lack of law enforcement (for all traffic violations) - Driver distractions (cell phones, eating, reading while driving) - Drivers under the influence (drugs or alcohol) - Speed limits too high - Young drivers (reckless, careless, speeding) - Semi's driving too fast	33
Issues related to increased traffic and/or congestion - Increased traffic/congestion (increased population) - Increased semi's on roads	32
Issues related to road conditions - Poor road conditions / maintenance of roads (not done, not timely) - Pavement conditions (weather, wet, dry, snow, ice) - Lane options (too short, not enough, too narrow) - Road construction - Traffic signals / signs (timing, not enough, location) - Old infrastructure	22
Other issues - Other - Accidents (general) - Allocation of funding (wrong places, not enough) - Don't know	13

* Reasons are listed in decreasing order of mention

4.0 DELAYS RESULTING FROM ROADWORK

4.1 EFFORTS TO REDUCE ROADWORK DELAY

Several questions were asked about efforts and programs to reduce delays resulting from roadwork. Respondents were asked how satisfied they were with each type of effort, which was represented by a five point scale on which '1' meant *very dissatisfied* and '5' meant *very satisfied*. Table 4.1 shows how Oregon respondents compared with those in the Pacific Census Division and the nation as a whole on these items.

Table 4.1: Satisfaction on efforts and programs to reduce delays resulting from roadwork

Type of Effort to Reduce Delay	Mean Score on a Scale of 1-5 (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Making repairs during non-rush hour periods, including nights and weekends	4.3	3.9	3.8
Number of flaggers with information signs	4.3	3.9	3.9
Amount of time to clear accidents	4.1	3.8	3.9
Road signs at the beginning to show delay times	4.0	3.5	3.5
Use of detours to re-route traffic	4.0	3.8	3.7
Phone numbers for traffic/road work updates	3.9	3.7	3.5
Durability of paving to make roads last longer	3.7	3.5	3.5
Time required to do roadway repairs	3.7	3.3	3.2

Several observations may be made from these results:

- Overall, Oregonians expressed positive levels of satisfaction with all efforts to reduce roadwork delay, given that the opinions on all items had average values higher than '3' (*neither satisfied nor dissatisfied*). This also held true for respondents in the Pacific Census Division and those in the U.S. as a whole.

- For all of the above issues, the Oregon respondents were more satisfied than respondents in the Pacific Census Division or the U.S.

- All three groups had the highest satisfaction with efforts in *making repairs during non-rush hour periods,* the *number of flaggers with information signs,* and the *amount of time to clear accidents.*

- All three groups were least satisfied with the *time required to do roadway repairs.*

- Oregon levels of satisfaction usually stood apart from those of the other two groups, running higher than those of either the Pacific states or those nationwide.

4.2 OVERALL SATISFACTION WITH REDUCING ROADWORK DELAY

The survey respondents were also asked what grade they would give their region for its efforts and programs to reduce roadwork-related delays. This question used the grading system ranging from 'A+' to 'F.' The percent of respondents giving a grade of 'B' or better is shown in Figure 4.1.

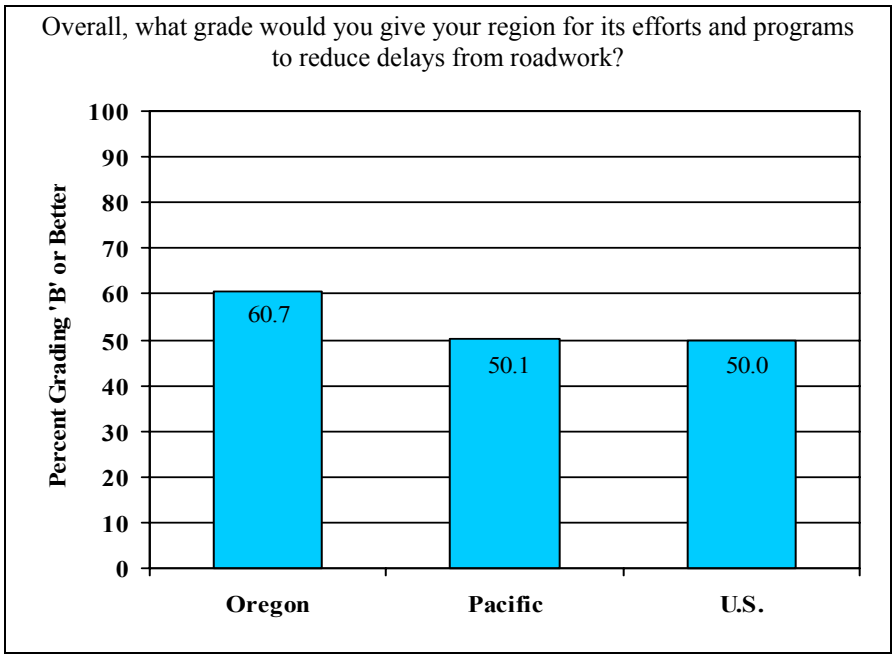

Figure 4.1: Percent of respondents giving a grade of 'B' or better for efforts to reduce delays from roadwork

Consistent with the previous questions, Oregon respondents tended to give somewhat higher grades on how their region managed delays due to roadwork than did respondents in either the Pacific Census Division or the U.S. as a whole. Again, the Pacific states opinions were more similar to those in the nation than to those of Oregonians.

Within Oregon, regional differences were found for this question. Figure 4.2 shows the percent of respondents in each ODOT Region giving a grade of 'B' or better and 'C' or worse.

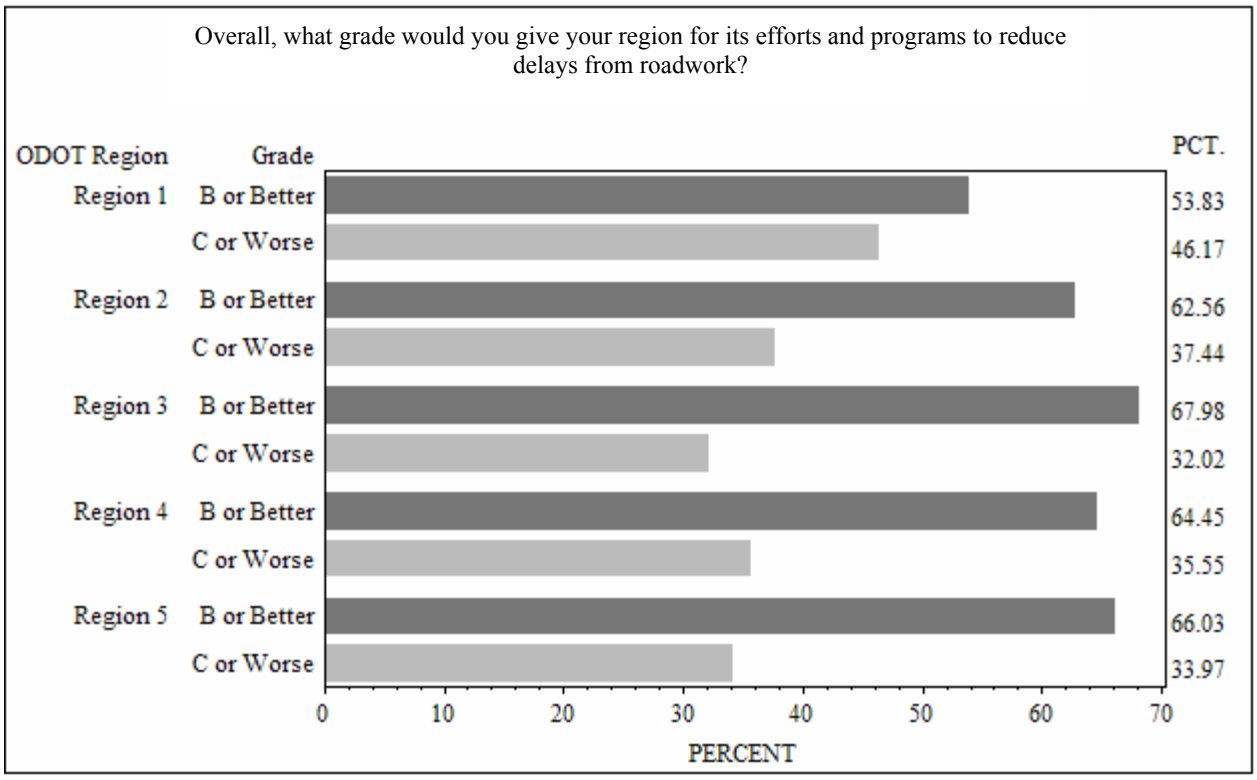

Figure 4.2: Percent of respondents by ODOT region grading 'B' or better for efforts to reduce delays from roadwork

Majorities of respondents in all regions gave a grade of 'B' or better for their region's efforts to manage roadwork delay. A statistical test for the difference of means found that respondents in Region 1, comprised mostly of the Portland Metro area, were significantly less likely to give grades 'A' or 'B' than were respondents in the other regions of the state.

5.0 WORK ZONE MANAGEMENT

5.1 SATISFACTION WITH ELEMENTS OF WORK ZONE MANAGEMENT

Several questions were asked about the management of work zones. Respondents were asked how satisfied they were with specific elements of work zone management, which was represented by a five point scale on which '1' meant *very dissatisfied* and '5' meant *very satisfied*. Table 5.1 shows how Oregon respondents compared with those in the Pacific Census Division and the nation as a whole on these issues.

Table 5.1: Satisfaction with elements of work zone management

Element of Work Zone Management	Mean Score on a Scale of 1-5 (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
The orange signs indicating ongoing construction	4.3	4.3	4.2
Overall safety while traveling in work zones	4.2	4.0	3.9
Safety features, such as visibility, lane widths, signs, and traffic speed	4.1	4.0	3.9
Detour signs and directions	4.1	3.9	3.7
Enforcement of traffic violations in work zones	3.8	3.9	3.7
Amount of time you are delayed in work zones	3.7	3.4	3.2
Amount of time required to complete repair	3.6	3.3	3.1
Amount of traffic congestion in work zones	3.5	3.0	3.0

Overall, Oregonians expressed positive levels of satisfaction with all elements of work zone management, given that the opinions on all elements had average values higher than '3' (*neither satisfied nor dissatisfied*).

While the scores for Oregon, the Pacific Census Division and the U.S. differed slightly, they were all in exactly the same rank order; that is, the levels of satisfaction on the various elements of work zone management followed the same pattern for all three geographic areas. Respondents in all areas were most satisfied with the use of *the orange signs indicating ongoing construction* and least satisfied with the *amount of traffic congestion.* As in the findings reported in earlier sections of this report, the Pacific states opinions tended to be more similar to those in the nation than to those of Oregonians.

5.2 OVERALL SATISFACTION WITH WORK ZONE MANAGEMENT

The survey respondents were also asked what grade they would give their region for work zone management. This question used the grading system ranging from 'A+' to 'F.' The percent of respondents giving a grade of 'B' or better is shown in Figure 5.1.

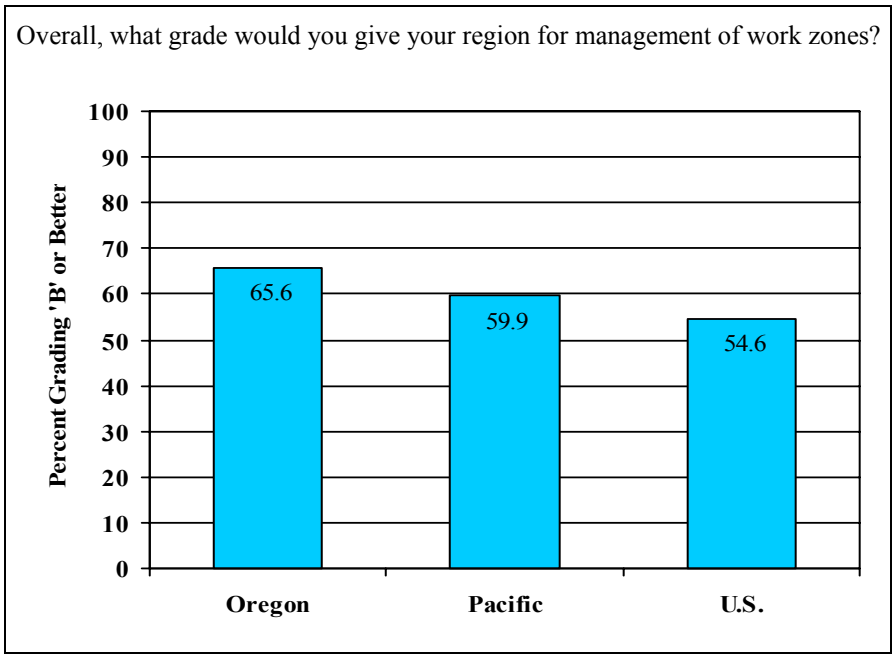

Figure 5.1: Percent of respondents giving a grade of 'B' or better for management of work zones

As with other issues, Oregonians graded the management of work zones higher than did respondents in the Pacific Census Division or those in the nation as a whole.

Within Oregon, regional differences were found for this question. Figure 5.2 shows the percent of respondents in each ODOT Region giving a grade of 'B' or better and 'C' or worse.

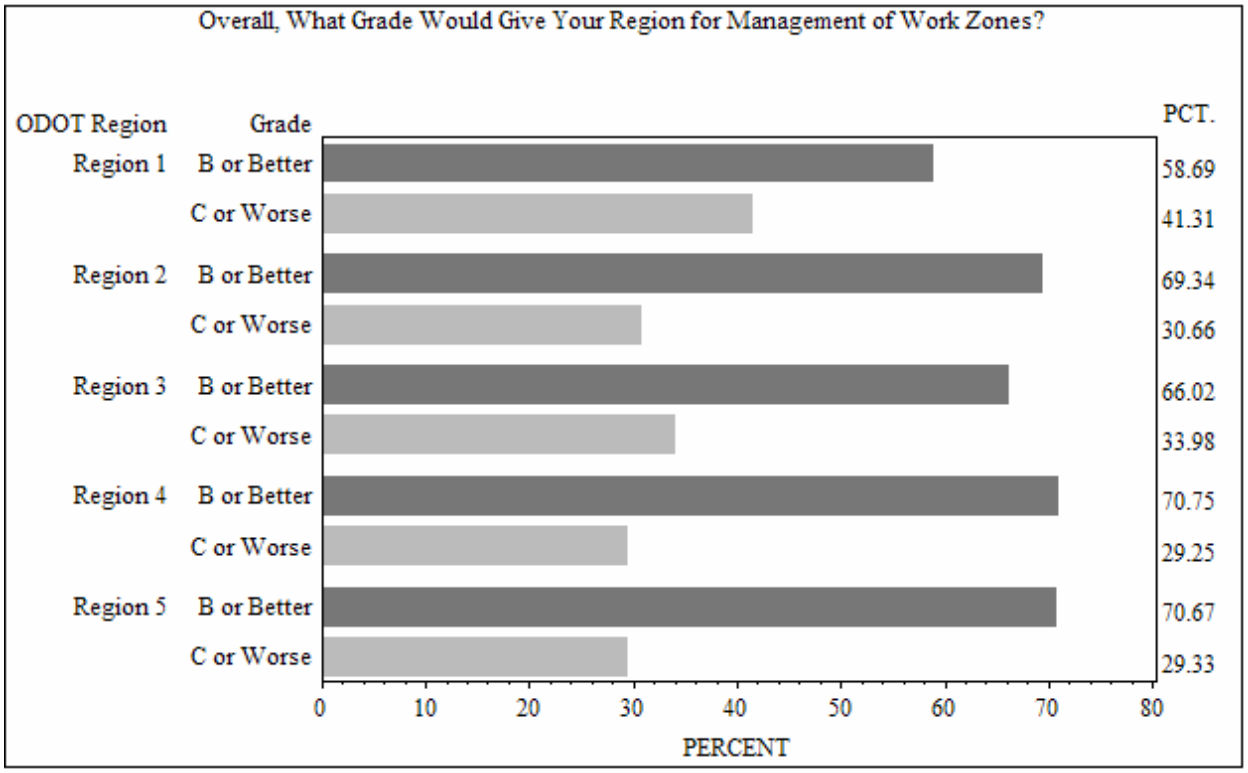

Figure 5.2: Percent of respondents by ODOT region grading 'B' or better for management of work zones

While majorities of respondents in all ODOT regions gave a grade of 'B' or better for the management of work zones, a statistical test for the difference of means showed that respondents in Region 1 were significantly less likely to give a grade of 'B' or better on this question than were respondents in the other regions of the state.

5.3 INFORMATION ABOUT ROADWAY CONSTRUCTION PROJECTS

Two additional questions related to construction projects were included in the survey of Oregonians. First, respondents were asked their level of satisfaction with the manner in which public agencies keep citizens informed about roadway construction projects in their area. Responses were represented with a 5-point scale where '1' meant *very dissatisfied* and '5' meant *very satisfied.* The findings are shown in Figure 5.3. About one-third (34%) of Oregonians were *very satisfied*, and nearly half (46%) were *somewhat satisfied*. Only 1 in 5 Oregonians (20%) were *dissatisfied.*

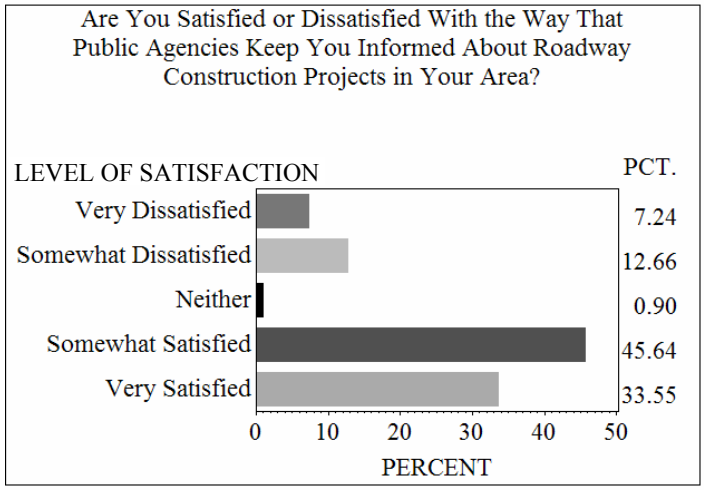

Figure 5.3: Satisfaction with public agencies keeping citizens informed

Second, respondents were asked how they would prefer to receive updates on the status of roadway construction projects. Each respondent was asked to mention all methods he or she preferred to receive construction updates. Figure 5.4 displays the percent of responses given for each method.

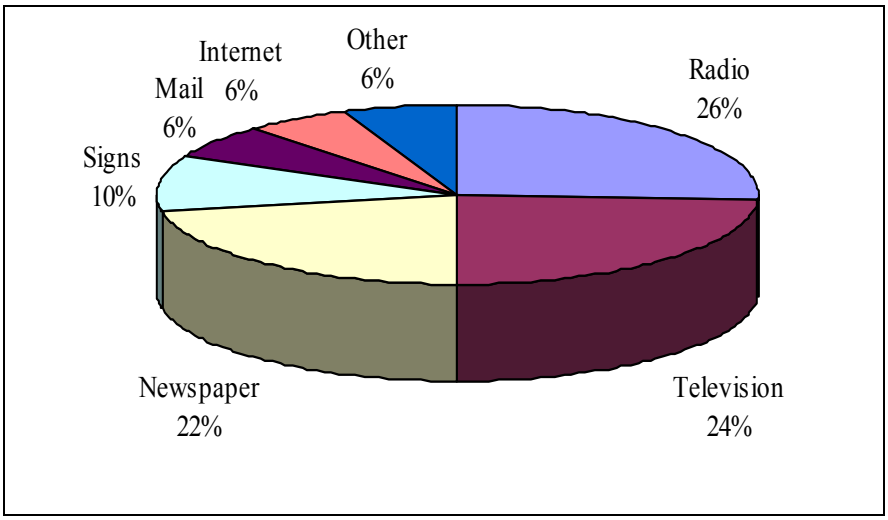

Figure 5.4: Preference of methods used for roadway construction updates

Oregonians cited *radio* (radio, radio news, radio traffic reports combined) most frequently. *Television* (TV news, TV traffic reports, TV commercials combined) and *newspaper* were also cited as important sources for receiving information about construction projects.

6.0 BRIDGE CONDITIONS

Bridges have been a special concern in Oregon for the past several years. The TOP Survey asked a series of six questions concerning satisfaction with bridge conditions, which was represented by a five point scale on which '1' meant *very dissatisfied* and '5' meant *very satisfied*. The mean scores for Oregon, the Pacific Census Division, and the United States are shown in Table 6.1.

Table 6.1: Satisfaction with bridge conditions

Element of Bridge Condition	**Mean Score on a Scale of 1-5** (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Appearance	4.3	4.3	4.1
Safety of bridges/bridge construction	4.0	4.2	4.0
Smoothness of ride	4.0	4.0	3.9
Durability	3.9	4.2	4.0
Lane and shoulder width	3.7	3.7	3.6
Availability of bike lanes and pedestrian walkways	3.5	3.4	3.0

Overall, Oregonians expressed positive levels of satisfaction with all elements of bridge conditions, given that the opinions on all elements had average values higher than '3' (*neither satisfied nor dissatisfied*).

Oregon respondents were in agreement with respondents of both the Pacific Census Division and the U.S. in expressing the highest levels of satisfaction with bridge *appearance* and in giving the lowest rating to the *availability of bike lanes and pedestrian walkways.*

7.0 FINANCING THE TRANSPORTATION SYSTEM

7.1 SUPPORT FOR FUTURE TRANSPORTATION PROGRAMS

A series of four questions was asked concerning how likely survey respondents were to support future transportation programs and projects to build or expand various components of the transportation system in their region. Respondents were allowed to scale their responses from '0,' meaning *not at all likely*, to'10,' meaning *extremely likely*. Table 7.1 shows the results for Oregon, the Pacific Census Division states, and the nation as a whole.

Table 7.1: Likelihood of support for future transportation programs and projects

Type of Transportation Program or Project	Mean Score on a Scale of 1-10 (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Projects to build or expand pedestrian walkways	6.6	7.2	7.1
Programs to build or expand public transportation services	6.4	7.3	7.0
Projects to build or expand bike lanes	6.2	6.9	6.7
Programs to build more roadways	5.7	6.7	6.4

Overall, Oregonians expressed only tentative support for building or expanding various components of the transportation system, with *pedestrian walkways* receiving the strongest support. Oregonians consistently showed less support for building or expanding various components of the transportation system than respondents in either the Pacific states or the nation as a whole. Respondents in the Pacific states and the nation tended to express similar levels of support for future transportation programs.

7.2 VALUE OF THE SYSTEM FOR THE TAX DOLLAR

Citizens frequently express concern about how their tax dollars are being spent. A question was designed to tap into that concern in terms of the transportation system. The question asked was, "To what extent do you agree or disagree that you are getting your money's worth for your tax dollar to build and maintain your region's transportation infrastructure?" Respondents were allowed to scale their responses from '0,' meaning *strongly disagree*, to'10,' meaning *strongly agree*. Figure 7.1 shows the results for Oregon, the Pacific Census Division states, and the nation as a whole.

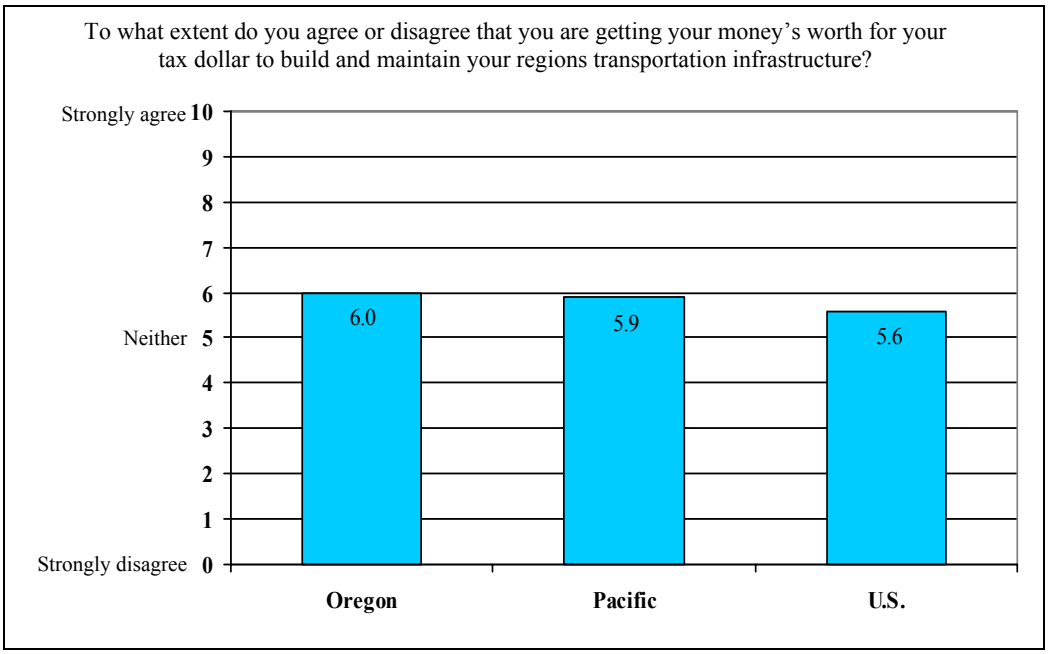

Figure 7.1: Perceptions of the value of the system for the tax dollar

On average, Oregon respondents showed mild agreement with the statement. Oregonians' views were similar to those of respondents in the Pacific Census Division. These groups had slightly more positive opinions about getting their money's worth than respondents in the U.S. overall.

7.3 SOURCES OF FUNDS FOR TRANSPORTATION

Oregon respondents were asked to indicate whether they thought various sources of funding are used to finance transportation projects in Oregon. Table 7.2 shows the results.

Table 7.2: Perceptions of the sources of funds for transportation

Source of Funds	Percent Who Think this Source is Used
Vehicle registration fees	81
Fuel tax	82
State income tax	60
Federal income tax	53
Property tax	42
User Fees	41
Toll Roads	24
Sales Tax	12

Most Oregonians were aware that *vehicle registration fees* and the *fuel tax* are used to fund transportation. Many Oregonians, however, showed they were uncertain about the sources of funding for transportation.

Oregonians were also asked about their level of support for various ways to finance highway construction and transportation improvements. They responded using a scale, where '0' meant *Do not support at all* and '10' meant *Strongly support.* Table 7.3 below shows the results of this question.

Table 7.3: Level of support for options to finance transportation improvements

To what extent do you support [each option] for funding of highway construction and transportation improvements?	Percentage of Responses†				Mean *
	Strongly Support (10)	Support (7-9)	In the Middle (4-6)	Do Not Support (0-3)	
Vehicle Registration Fees	23	32	31	14	6.6
Fuel Tax	22	30	29	18	6.2
Income Tax	8	18	36	38	4.3
Toll Roads	8	13	24	54	3.3
Mileage Use Fee	7	13	19	60	3.0
Sales Tax	6	10	16	67	2.5

* Mean based on 11-point scale where '0' meant *do not support at all* and '10' meant *strongly support*.
† Percentages may not total 100% due to rounding

The majority of Oregonians either *strongly supported* or *supported* the use of the current methods of funding – vehicle registration fees and the fuel tax – to finance transportation construction and improvements. No other funding methods received a majority of support. A sales tax was the least supported funding option.

7.4 FUNDING PRIORITIES

To determine Oregonians' funding priorities, respondents were asked to distribute $100 among four options – environmental preservation, roadway beautification, roadway safety features, and roadway pavement condition. Figure 7.2 shows how respondents statewide would allocate these funds.

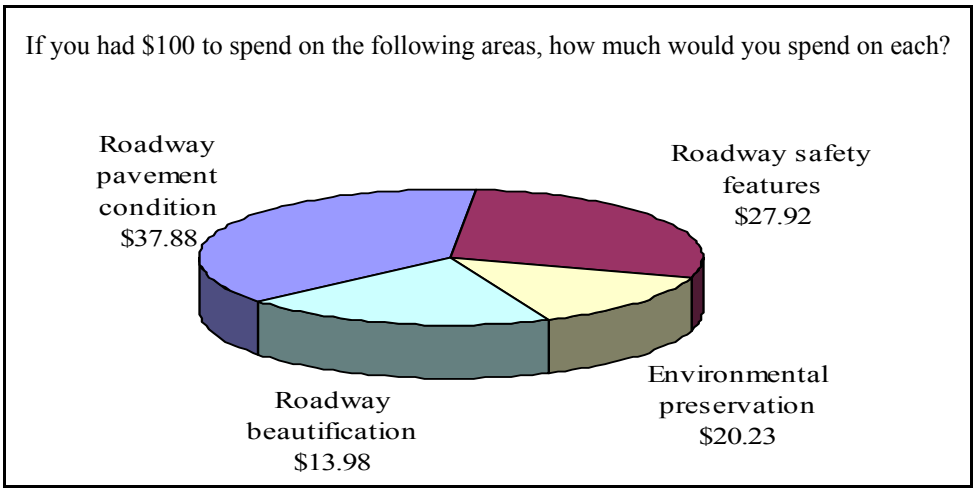

Figure 7.2: Allocation of funds among roadway improvement options

Oregonians allocated the most funding to roadway pavement condition ($37.88) and roadway safety features ($27.92). This response was consistent with their responses on the relative importance of items contributing to an effective and high quality transportation system (Table 2.1), in which *highway and roadway safety* and *pavement conditions* were rated well above *consideration of the environment* and *visual appeal/appearance of the highway*.

8.0 IMPACT OF TRANSPORTATION ON THE ENVIRONMENT

The TOP Survey asked respondents about their satisfaction levels with the impacts of transportation on certain aspects of the environment. These included the following: *air quality*; *water quality*; *the level of noise; wetlands, habitats, etc.*; and *the overall impact*. Responses to these questions used a five point scale in which '1' meant *very dissatisfied* and '5' meant *very satisfied*.

8.1 SATISFACTION WITH OVERALL IMPACT

First, concerning the level of satisfaction with the overall impact of the transportation system on the environment, Figure 8.1 shows the responses from Oregonians compared to responses in the Pacific states and nationwide.

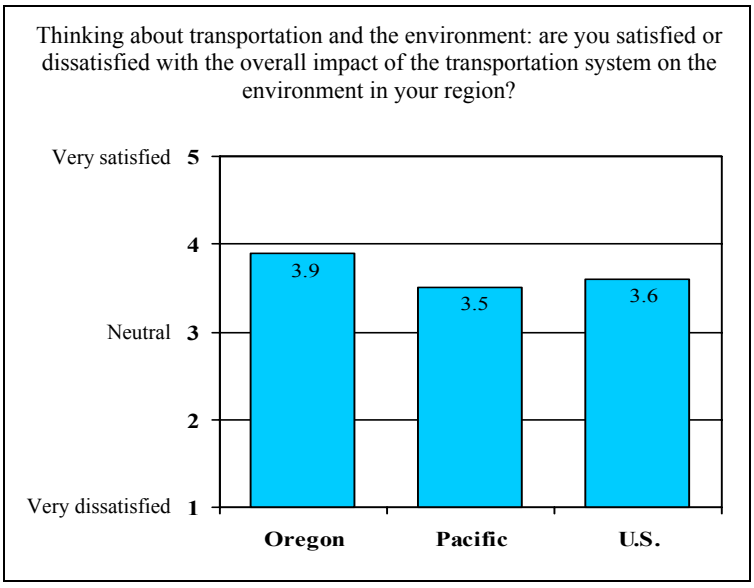

Figure 8.1: Satisfaction with overall impact of transportation system on environment

Oregon respondents, as well as those in the Pacific states and the U.S. as a whole, showed positive levels of satisfaction (i.e., above '3' on the scale) with the overall impact of the transportation system on environment. Oregonians showed a slightly higher average level of satisfaction than did respondents in either the Pacific states or the nation. This finding is consistent with the relative levels of satisfaction showed by the three groups with the transportation system overall (Section 3.1).

8.2 SATISFACTION WITH SELECTED IMPACTS

Table 8.1 shows Oregon responses compared to responses in the Pacific states and those nationwide concerning the level of satisfaction with the impacts of the transportation system on specific aspects of the environment.

Table 8.1: Satisfaction with impacts of transportation on specific aspects of the environment

Aspect of Environment	Mean Score on a Scale of 1-5 (Oregon values are shown in descending order)		
	Oregon	**Pacific States**	**U.S.**
Level Of Noise	4.0	3.6	3.8
Water Quality	4.0	3.6	3.7
Wetlands, Habitats, etc	3.9	3.6	3.7
Air Quality	3.8	3.5	3.5

As with the responses on the overall impact of transportation on the environment, all three groups showed positive levels of satisfaction with the impact of transportation on various aspects of the environment. Again, Oregonians indicated slightly higher levels of satisfaction than did respondents in the Pacific states or the nation as a whole.

Within Oregon, the findings for these questions by ODOT region are shown in Table 8.2.

Table 8.2: Satisfaction with impacts of transportation on environment by ODOT region

Aspect of Environment	Mean Level of Satisfaction by ODOT Region*					State
	Region 1	**Region 2**	**Region 3**	**Region 4**	**Region 5**	
Overall	3.7	3.8	4.0	4.2	4.2	3.9
Level Of Noise	3.8	3.8	4.0	4.0	4.3	4.0
Water Quality	3.6	3.8	4.1	4.3	4.3	4.0
Wetlands, Habitats, etc	3.6	3.7	4.0	4.1	4.2	3.9
Air Quality	3.4	3.8	4.0	4.1	4.2	3.8

* Mean based on 5-point scale where '1' meant *very dissatisfied* and '5' meant *very satisfied*.

Within Oregon, the levels of satisfaction tended to differ by ODOT region, with somewhat higher levels of satisfaction in the most rural regions of the state (Regions 4 and 5), compared to levels of satisfaction in the more urban regions (Regions 1 and 2).

9.0 CONCLUSION

This report has provided a brief summary of a larger study, the Traveler Opinion and Perception Survey (TOPS), conducted by the Federal Highway Administration in 2004. This summary report has covered about half the 125 questions asked of Oregonians. The full TOPS data is available from the ODOT Research Unit. It provides comparisons between Oregon and the Western region of the U.S. and a group of selected 'peer' states, in addition to the Pacific Census Division and the U.S.

Seven topics were selected for discussion is this summary report:

- What are the characteristics of an effective and high quality transportation system?
- How satisfied are Oregonians with the transportation system?
- What do they have to say about delays resulting from roadwork?
- How satisfied are Oregonians with the management of work zones?
- What are their opinions on bridge conditions?
- To what extent do they support future transportation programs and funding alternatives?
- How satisfied are Oregonians with the impacts of transportation on the environment?

Across all of the survey findings, Oregonians tended to reflect somewhat higher levels of satisfaction with the various aspects of the transportation system than did respondents in the Pacific states or the nation as a whole. The survey findings, however, often showed similar views among all three groups on the ranking of satisfaction among the various elements of the system. Oregonians' views tended to diverge from those of the Pacific states and the nation.

The views of Oregonians in the more urban regions of the state tended to differ somewhat from opinions in the more rural regions, with urban residents being a bit more critical of how various aspects of the system are managed. Higher concentrations of population and the accompanying stresses on the system in terms of traffic congestion are likely reasons for this difference.

Along with a higher level of satisfaction with current conditions, Oregonians expressed a relatively more positive view of the value of the transportation system for the tax dollar spent, in comparison to survey respondents in the Pacific states and the nation as a whole. Oregonians also expressed a somewhat lower level of support for future transportation programs and projects than did respondents in the Pacific states or the nation, perhaps reflecting a somewhat lower sense of urgency for improvements among Oregonians.

In addition to the topics covered in this summary report, the full TOPS report touches on several other areas as well:

- The general use or travel characteristics of various parts of the transportation system;
- The frequency of long distance or extended travel;
- Bicycle and pedestrian mobility issues;

- Additional aspects of transportation operations and infrastructure;
- Additional planning and environmental issues; and
- Characteristics of the respondents, such as age, employment and income.

Readers with an interest in further analyses of these data are invited to contact the ODOT Research Unit, 200 Hawthorne Avenue SE, Salem, OR 97301; telephone 503-986-2700.