



Eastside Corridor Tolling Study

Online Survey Report



**Washington State
Department of Transportation**

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Executive Summary

Introduction

In 2009, the Washington State Legislature directed WSDOT to prepare a traffic and revenue study for Eastside Corridor express toll lanes and to seek input from mayors and the public. A report is due to the legislature and the governor by January 2010. The study began in June 2009.

The Eastside Corridor is the only north-south freeway alternative to I-5 in the Puget Sound region. It is made up of sections of Snohomish, King and Pierce counties, stretching down I-405 and SR 167 to SR 512. The Eastside Corridor Tolling Study project limits encompass the I-405 and SR 167 corridors. Tolling is a possible next step to implementing the I-405 Corridor Master Plan and connecting I-405 to the SR 167 HOT lanes, thereby creating a north-south Eastside Corridor Express Toll Lane System and a bypass to I-5.

As gathering public input is a major part of the Eastside Corridor Tolling Study, WSDOT in collaboration with PRR, conducted an online survey between August 4th 2009 and September 4th, 2009. The survey was fielded using WSDOT's Survey Monkey account. This report presents a comprehensive summary of the findings from the online survey.

Method

PRR, in collaboration with WSDOT, developed questions for the online survey. The survey questions were then pre-tested and were found to be working well. No major changes were made to the survey. The pretest surveys were not included in the final sample.

Over 220,000 postcards were mailed during the first week of August with the link to the online survey and information about public open houses that were held in mid-August. Postcards were sent to all carrier routes within a two-mile radius of the I-405 and SR 167 corridors. Additionally, the survey was advertised on the project Web site and via advertisements in local print and online publications.

The survey link was posted on the Eastside Corridor Tolling Study Web site from August 4 until September 4, 2009. The total number of completed surveys was 2,584.

Key Findings

The key findings include:

I-405 Usage Patterns

- The vast majority (96.4%) used I-405 at least once in the last seven days. Of these, almost two-thirds (65.7%) reported traveling on I-405 four or more times in the previous week.
- Ninety-three percent said they traveled on I-405 during the weekdays, with three-fourths (74.8%) reporting traveling during the PM peak hours (3 pm to 7 pm) and 56.9% during the AM peak hours (5 am to 9 am). Also, 51.1 percent traveled during the mid-day (after 9 am to before 3 pm).
- Four-fifths (79.4%) used I-405 during the weekends.
- The top two travel modes that respondents used regularly to travel on I-405 included driving alone (mean = 3.32 days) and carpooling with household members (mean = 1.73 days).
- The top two reasons why respondents travelled on I-405 included commuting to work (mean = 3.29 days) and running errands/ shopping (mean = 1.95 days).

- Over three-fifths (62.8%) felt that traffic was moderately congested when they traveled on I-405 during the previous week. Another 29% said they thought the congestion was ‘serious’ or ‘very serious.’

SR 167 Usage Patterns

- Over two-fifths (43.9%) used SR 167 at least once in the last seven days. Of these, over one-third (37.6%) reported traveling on SR 167 four or more times in the previous week.
- 81% said they traveled on SR 167 during the weekdays, with over three-fifths (63.4%) reporting that they traveled during the PM peak hours (3 pm to 7 pm) and 42.8% traveling during the AM peak hours (5 am to 9 am). Also, 50.2% traveled during the mid-day (after 9 am to before 3 pm).
- Over three-fifths (64%) used SR 167 during the weekends.
- The top two travel modes that respondents used regularly to travel on SR 167 included driving alone (mean = 2.43 days) and carpooling with household members (mean = 1.28 days).
- The top two trip reasons why respondents travelled on SR 167 included commuting to work (mean = 2.30 days) and running errands/ shopping (mean = 1.23 days).
- Over three-fifths (61.1%) felt that the traffic was moderately congested when they traveled on SR 167 during the previous week. Another one-fifth (20.3%) said they thought the congestion was ‘serious’ or ‘very serious’.
- When asked if they had ever used the HOT lanes on SR 167, two-fifths (41.5%) of the respondents said yes. However, it should be noted that the wording of this survey question did not specify if they had used the HOT lanes as a carpool or paid a toll to use as a single occupancy vehicle. Given that only 8.5% reported having a *Good to Go!*TM account, it is likely that the percent paying to use the HOT lanes is much lower than 41.5%.

Support for Express Toll Lanes

- Two-fifths (39.9%) reported being supportive (rating of '8' or more on a 0 to 10 scale) of adding up to two new express toll lanes on I-405 that would connect with HOT lanes on SR 167, with almost a quarter (22.9%) indicating very high support (rating of '10' on a 0 to 10 scale).
- Almost two-fifths (38.7%) were much more likely to support express toll lanes when they know that there will be no toll booths and tolls will be collected electronically as vehicles travel at regular highway speeds.
- More than a quarter (28.6%) indicated that they would have been likely (rating of '8' or more on a 0 to 10 scale) to have used express toll lanes for a faster trip on their previous peak time travel on I-405 or SR 167, with almost a fifth (17.0%) reported being very likely (rating of '10' on a 0 to 10 scale) to have used the lanes for a faster trip.
- Of those who said they would use the express toll lanes, 15% said they were likely to use express toll lanes on I-405 or SR 167 for four or more days a week.
- Over three-fifths (61%) thought that it was important (rating of '8' or above on a 0 to 10 scale) that revenue collected from express toll lanes on I-405 and SR 167 be used to fund improvements in the Eastside Corridor as opposed to funding improvements in other travel corridors, with almost half (47.8%) rating it as very important (rating of '10' on a 0 to 10 scale).
- The average additional speed that respondents reported wanting to be able to travel, for them to decide to pay a toll and travel in the express toll lanes, was 26 miles per hour (median additional speed = 25 mph; range = 1 to 50 mph more).
- The average toll amount that respondents were willing to pay to go from Renton to Bellevue (or from Renton to Auburn), if they could increase their speed to 45 mph, was 96 cents (median toll amount = 50 cents; range = 1 cent to \$30).

- The vast majority (79.7%) reported that they had not watched the express toll lanes video before they had taken the survey. Of those who had watched the video before taking the survey (19.5%),
 - More than two-thirds (69.6%) said it increased their understanding of express toll lanes.
 - More than one-fifth (22.1%) said it increased their support for express toll lanes.
- A cluster analysis was performed to identify market segments relative to support for express toll lanes. Four clusters were identified:
 - Cluster #1- No Way (17%; n = 433)
 - Cluster #2- Possibly (32%; n = 818)
 - Cluster #3- Probably (15%; n = 386)
 - Cluster #4- I'm Sold (36%; n = 900)

There are gradations of support for express toll lanes based on different characteristics:

- “No Ways” are those who:
 - Were least likely to have used express toll lanes during the previous week,
 - Show little support for addition of express toll lanes on I-405
 - Show little support for express toll lanes after they know that tolls will be collected electronically
 - Think it is very unimportant that toll revenue be used for I-405/SR 167 corridor improvements only.
 - Were less likely to have *Good To Go!*™ accounts,
 - Are only willing to pay less than half a dollar toll to use the express toll lanes,
 - Are least likely to think that traffic is congested on I-405 or have used HOT lanes on SR 167.
 - Are more likely to be the older.

- “Possibles” are those who:
 - Are less likely to have used express toll lanes during previous week,
 - Show little support for the addition of express toll lanes on I-405,
 - Show moderate support for express toll lanes after they know that tolls will be collected electronically
 - Think it is very important that toll revenue be used for I-405/SR 167 corridor improvements only.
 - Are least likely to have *Good To Go!*™ accounts,
 - Are only willing to pay less than a dollar toll to use the express toll lanes
 - Are least likely to have used HOT lanes on SR 167
 - Are more likely to think that traffic is congested on I-405
 - Are more likely to be middle aged.
- “Probables” are those who:
 - Were highly likely to have used express toll lanes during the previous week
 - Show a high level of support for the addition of express toll lanes on I-405
 - Show a high level of support for express toll lanes after they know that tolls will be collected electronically.
 - Think it is very unimportant that toll revenue be used for I-405/SR 167 corridor improvements only.
 - Are less likely to have *Good To Go!*™ accounts,
 - Are willing to pay a little over two dollars to use the express toll lanes
 - Are more likely to think that traffic is congested on I-405 and to have used HOT lanes on SR 167.
 - Are most likely to be the younger.

- “I’m Solds” are those who:
 - Were highly likely to have used express toll lanes during the previous week
 - Show very high support for the addition of express toll lanes on I-405
 - Show high support for express toll lanes after they know that tolls will be collected electronically
 - Think it is very important that toll revenue be used for Eastside Corridor improvements only.
 - Are more likely to have *Good To Go!*™ accounts,
 - Are willing to pay a little over two dollars to use the express toll lanes, and
 - Are most likely to think that traffic is congested on I-405 and to have used HOT lanes on SR 167.
 - Are more likely to be the younger.

Based on these gradations, one may say that there is the need to customize outreach strategies based on what segment one belongs to. Whereas it may be very difficult to win over the “No Ways” and the “I’m Solds” may be relatively easy to approach, there may be a need for different outreach plans for the “Possibles” and the “Probables”. While the “Possibles” can be potentially persuaded to support express toll lanes by providing information about the advantages of using express toll lanes and how toll revenue will be used for improvement in the I-405/SR 167 corridor, the “Probables” may be won over by informing them of the advantages of *Good To Go!*™ accounts.

- To further understand the relationship of support for express toll lanes with other variables while controlling for interaction effects, a logistical regression analysis was performed. It was found that one’s support for express toll lanes on I-405 increased:
 - When one had previous experience of using HOT lanes on SR 167.

- With increase in the level of traffic congestion one had experienced on SR 167 during the previous week.
- With decrease in one's age.

While people's attitude towards different aspects of express toll lanes and tolling create gradations in support for express toll lanes on I-405/SR 167 corridor, it is experience that acts as one of the most important factors in one's support toward express toll lanes on I-405. Consequently, outreach should especially involve those who have experience using HOT lanes to negotiate traffic congestion on SR 167 to act as advocates and help generate further support for express toll lanes on I-405/SR 167 corridor.

Introduction and Methodology

Background and Objectives

In 2009, the Washington State Legislature directed WSDOT to prepare a traffic and revenue study for Eastside Corridor express toll lanes and to seek input from mayors and the public. A report is due to the legislature and the governor by January 2010. The study began in June 2009.

The Eastside Corridor is the only north-south freeway alternative to I-5 in the Puget Sound region. It is made up of sections of Snohomish, King and Pierce counties, stretching down I-405 and SR 167 to SR 512. The Eastside Corridor Tolling Study project limits encompass only the I-405 and SR 167 corridors. Tolling is a possible next step to implementing the I-405 Corridor Master Plan and connecting I-405 to the SR 167 HOT lanes, thereby creating a north-south Eastside Corridor Express Toll Lane System and a bypass to I-5.

As gathering public input is a major part of the Eastside Corridor Tolling Study, WSDOT held five public open houses throughout the I-405 and SR 167 corridors as part of the outreach process. As part of the follow up to these open houses, WSDOT, in collaboration with PRR, conducted an online survey between August 4th 2009 and September 4th, 2009. This report presents a comprehensive summary of the findings from this online survey.

Survey Methodology

Survey Development

PRR, in collaboration with WSDOT, developed questions for the online survey. This process involved several initial drafts of survey questions. WSDOT team members reviewed all drafts and a final draft of the online survey questions was achieved (see Appendix A).

The online survey questions were programmed into Survey Monkey software using the WSDOT account. The survey questions were then pre-tested and the survey questions were found to be working well. No major changes were made to the survey questions. The pretest surveys were not included in the final sample.

Survey Fielding

As part of the open houses invitation, WSDOT mailed over 220,000 postcards during the first week of August with the Web site and survey information. Postcards were sent to all carrier routes within a two-mile radius of the I-405 and SR 167 corridors. Additionally, the survey was advertised on the project Web site and via advertisements in local print and online publications.

The survey link was posted on the WSDOT Eastside Corridor Tolling Study Web page on August 4, 2009 and continued until September 4, 2009. The total number of completed survey was 2584.

Data Processing and Analysis

Data processing consisted of downloading the online survey data into an Excel file and then importing the data into an SPSS (Statistical Package for the Social Sciences) file. Response range and logic checks were performed in order to check for miscoded variables thereby cleaning the final data file. Data analysis was conducted with SPSS software.

Data analysis involved the use of appropriate descriptive statistical techniques (frequencies, percentages and means) and explanatory statistical techniques (in this case Cramer's V and Kendall's Tau c) to test for the statistical significance of relationships between variables¹. Finally, logistical regression and cluster analysis were performed to identify significant predictors and market segments relative to people's support for express toll lanes.

Throughout this report, relationships between variables that are statistically significant at the .05 level or better, and that are meaningful to an understanding of the data are reported.

1 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. Kendall's Tau c is a measure of the relationship between two variables and is appropriate to use when both of the variables are at the ordinal level of measurement. Tau c ranges from -1 to +1 and indicates the strength and direction of a relationship. The accompanying "p" scores presented in this report for Cramer's V and Tau c indicate the level of statistical significance.

Sample Profile

Table 1 presents the sample demographics.

	Sample %
Gender	<i>(n = 2584)</i>
Female	31.4
Male	58.2
Refused	10.3
Age	<i>(n = 2584)</i>
Under 18	0.1
18 - 24	2.2
25 - 34	17.0
35 - 44	21.2
45 - 54	25.0
55 - 64	17.4
65 or older	9.0
Refused	8.2
Household Income before taxes	<i>(n = 2584)</i>
Under \$20,000	1.1
\$20,000 - \$29,999	2.2
\$30,000 - \$54,999	9.6
\$55,000 - \$74,999	12.5
\$75,000 - \$89,999	12.2
\$90,000 - \$124,999	21.8
\$125,000 - \$149,999	8.9
\$150,000 and above	15.09
Refused	15.9

	Sample %
Ethnic background	<i>(n = 2584)</i>
White / Caucasian (not Hispanic / Latino background)	72.6
White / Caucasian (Hispanic / Latino background)	1.6
Black / African American	0.9
Asian / Pacific Islander	5.8
Hispanic / Latino	0.7
Native American	0.4
Multi-racial	1.8
Other	3.2
Refused	12.9
Routes used in past week	<i>(n = 2584)</i>
I-405 only	56.9
SR 167 only	3.0
Both I-405 and SR 167	40.1
Have Good To Go!™ account	<i>(n = 2584)</i>
No	87.0
Yes	8.1
Refused	4.9

I-405 Usage Patterns

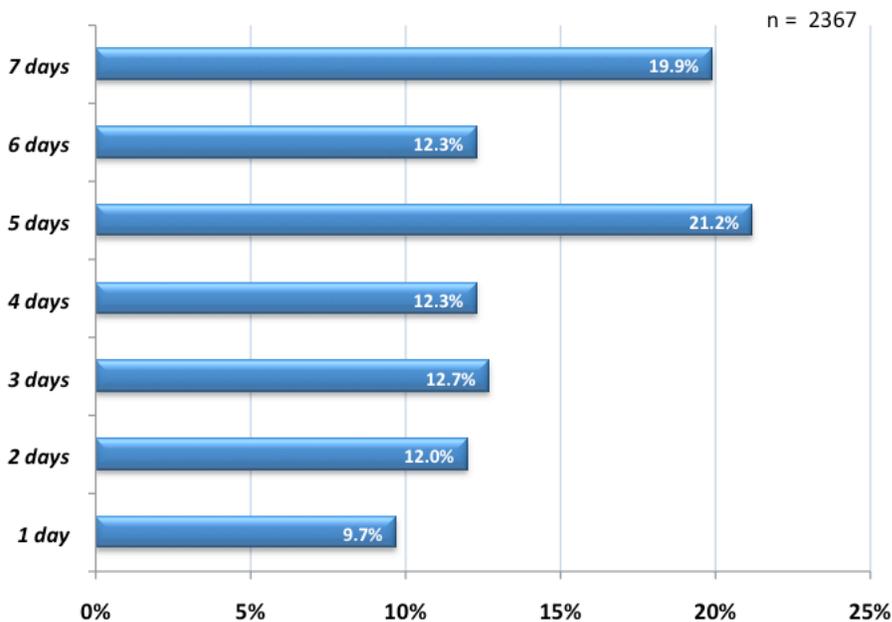
Survey respondents were asked to indicate the number of days they had used I-405 in the last 7 days, whether they traveled during the weekdays and/or weekends, the time of their travel on these trips, the modes of transportation they used to travel on I-405, trip purposes for using I-405 in the last 7 days and the level of congestion when they traveled on I-405.

Vast majority uses I-405 at least once a week

The vast majority (96.4%) reported using I-405 at least once in the last 7 days. Of these, almost two-thirds (65.7%) reported traveling on I-405 four or more times in the previous week.

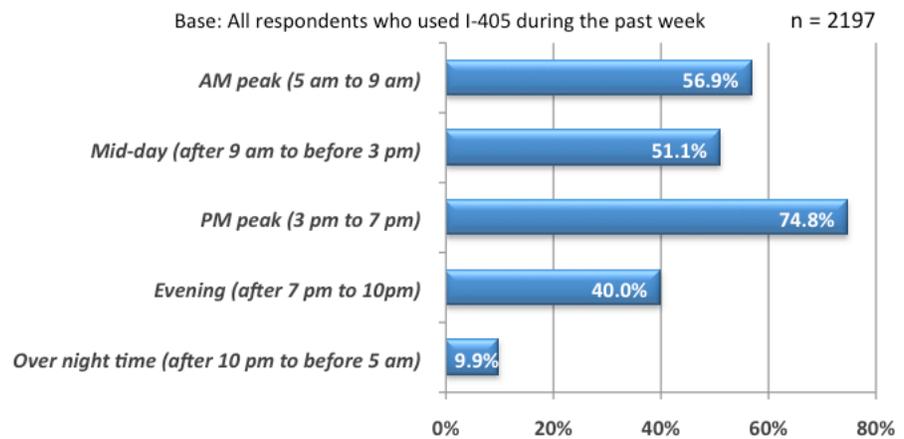
Figure 1: Frequency of I-405 usage

Base: All respondents who used I-405 during the previous week



Further, 93 percent said they traveled on I-405 during the weekdays, with three-fourths (74.8%) reporting traveling during the PM peak hours (3 pm to 7 pm) and 56.9% during the AM peak hours (5 am to 9 am). Also, 51.1 percent traveled during the mid-day (after 9 am to before 3 pm). When asked if they used I-405 during the weekend, four-fifths (79.4%) said yes.

Figure 2: Time of the day people travel on I-405 during weekdays (multiple responses allowed)

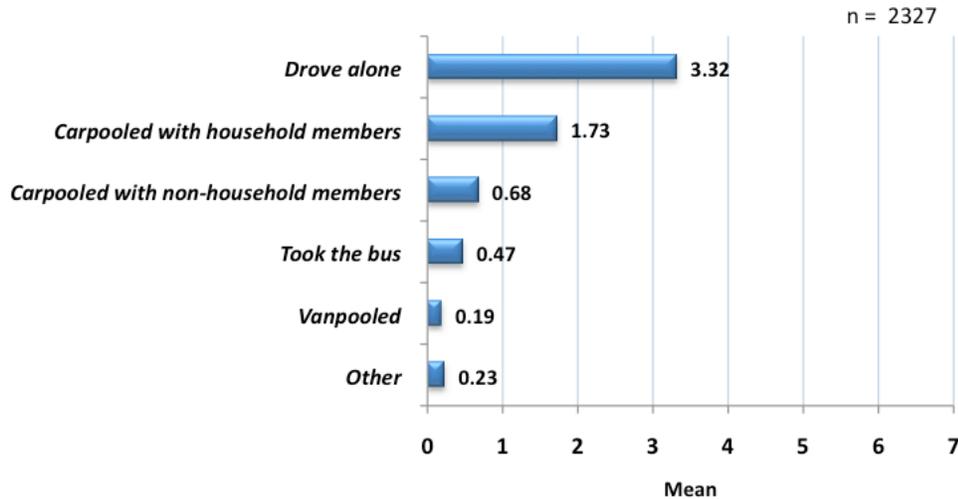


Driving alone is the most regular mode of transportation on I-405

The top two modes of transportation that respondents used regularly to travel on I-405 included driving alone (mean = 3.32 days) and carpooling with household members (mean = 1.73 days).

Figure 3: Average number of days when one used the following modes to travel on I-405

Base: All respondents who used the I-405 during the previous week

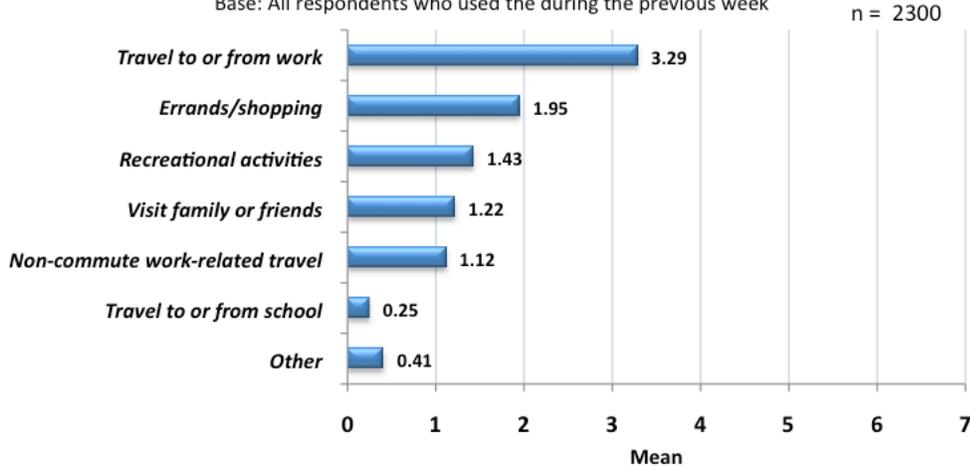


Commuting to work is the most regular reason to travel on I-405

The top two trip purposes why respondents used I-405 included commuting to work (mean = 3.29 days) and running errands/shopping (mean = 1.95 days).

Figure 4: Average number of days when one used I-405 for the following trip purposes

Base: All respondents who used the during the previous week

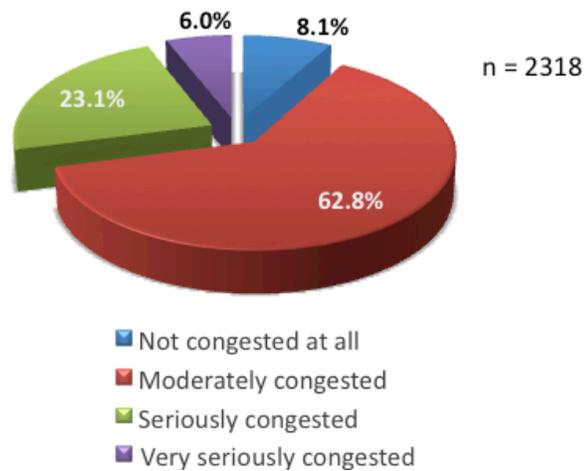


Most find I-405 to be congested

Over three-fifths (62.8%) reported that traffic was moderately congested when they traveled on I-405 during the previous week. Another 29% said that the congestion was 'serious' or 'very serious.'

Figure 5: Level of congestion on I-405

Base: All respondents who used I-405 during the past week



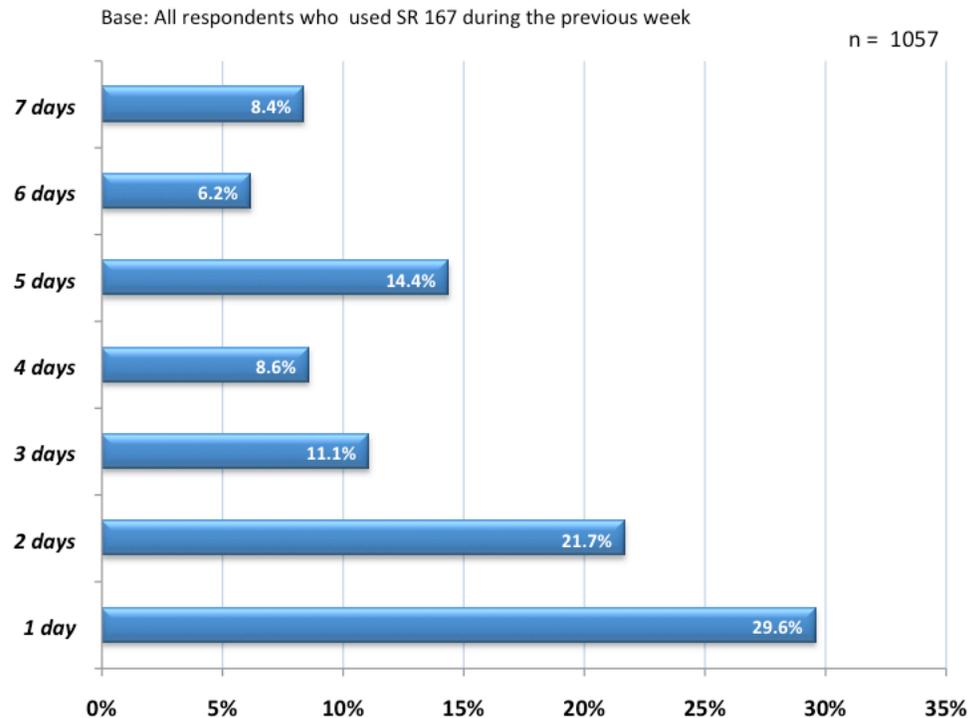
SR 167 Usage Patterns

Survey respondents were asked to indicate the number of days they had used SR 167 in the last 7 days, whether they traveled during the weekdays and/or weekends, the time of their travel on these trips, the modes of transportation they used to travel on SR 167, trip purposes for using SR 167 in the last 7 days and the level of congestion when they traveled on SR 167. The respondents were also asked if they had ever used the HOT lanes on SR 167.

Over two-fifths use SR 167 at least once a week

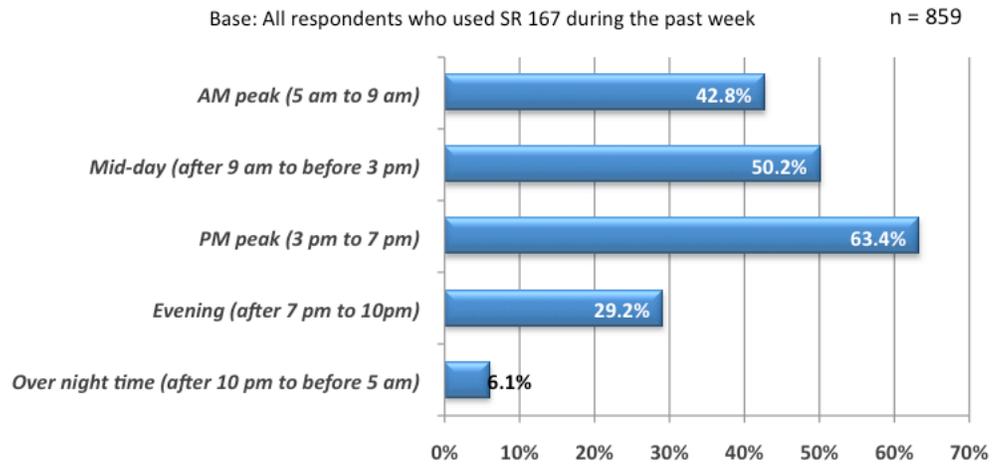
Over two-fifths (43.9%) reported using SR 167 at least once in the last 7 days. Of these, over one-third (37.6%) reported traveling on SR 167 four or more times in the previous week.

Figure 6: Frequency of SR 167 usage



Furthermore, 81% said they traveled on SR 167 during the weekdays, with over three-fifths (63.4%) reporting that they traveled during the PM peak hours (3 pm to 7 pm) and 42.8% traveling during the AM peak hours (5 am to 9 am). Also, 50.2% traveled during the mid-day (after 9 am to before 3 pm). When asked if they used SR 167 during the weekend, 64% said yes.

**Figure 7: Time of the day people travel on SR 167 during weekdays
(multiple responses allowed)**



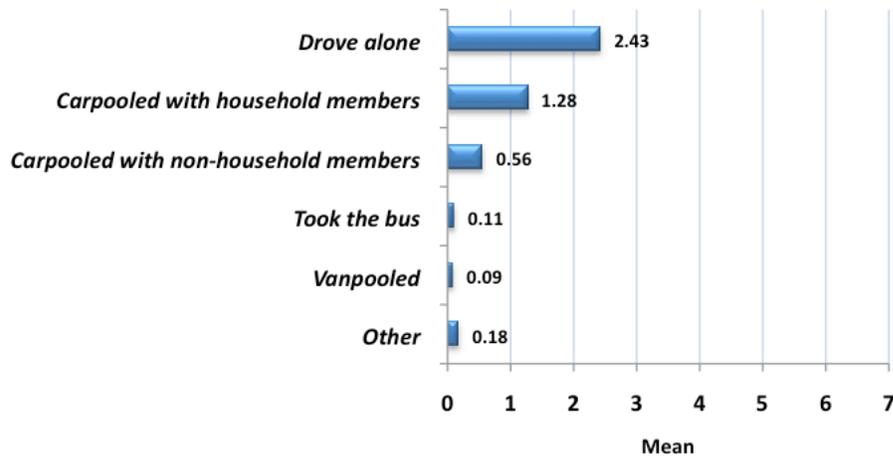
Driving alone is the most regular mode of transportation on SR 167

The top two modes of transportation that respondents used regularly to travel on SR 167 included driving alone (mean = 2.43 days) and carpooling with household members (mean = 1.28 days).

Figure 8: Average number of days when one used the following modes to travel on I-405

Base: All respondents who used SR 167 during the previous week

n = 1053



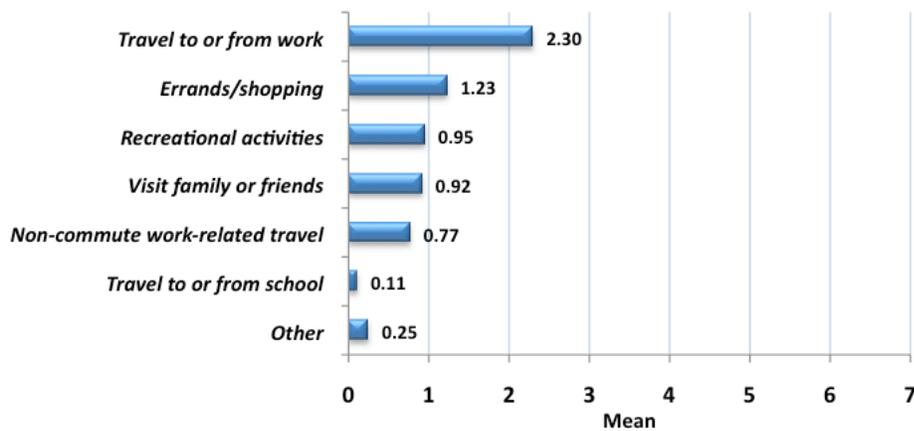
Commuting to work is the most regular reason to travel on SR 167

The top two trip purposes why respondents traveled on SR 167 included commuting to work (mean = 2.30 days) and running errands/ shopping (mean = 1.23 days).

Figure 9: Average number of days when one used SR 167 for the following trip purposes

Base: All respondents who used SR 167 during the previous week

n = 1041



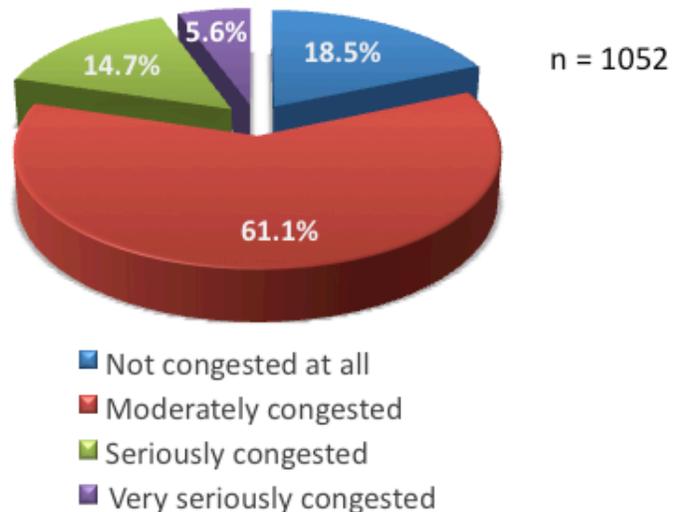
Most find SR 167 to be congested

Over three-fifths (61.1%) reported that the traffic was moderately congested when they traveled on SR 167 during the previous week. Another one-fifth (20.3%) said that the congestion was 'serious' or 'very serious.'

Survey respondents were asked to indicate the number of days they had used SR 167 in the last 7 days, whether they traveled during the weekdays and/or weekends, the time of their travel on these trips, the modes of transportation they used to travel on SR 167, trip purposes for using SR 167 in the last 7 days and the level of congestion when they traveled on SR 167. The respondents were also asked if they had ever used the HOT lanes on SR 167.

Figure 10: Level of congestion on SR 167

Base: All respondents who used SR 167 during the past week

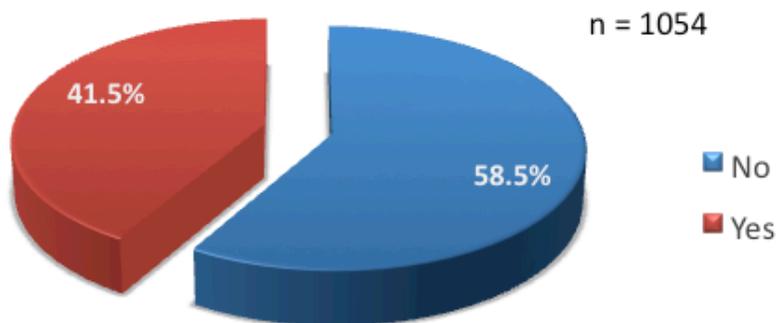


Over half have yet to use the HOT lanes on SR 167

When asked if they had ever used the HOT lanes on SR 167, almost three-fifths (58.5%) of the respondents said no. However, it should be noted that the wording of this survey question did not specify if they had used the HOT lanes as a carpool or paid a toll to use the lanes as a single occupancy vehicle. Given that only 8.5% reported having a *Good to Go!*TM account, it is likely that the percent paying to use the HOT lanes is much lower than 58.5%.

Figure 11: Used HOT lanes on SR 167

Base: All respondents who used SR 167 during the past week



Support for Express Toll Lanes

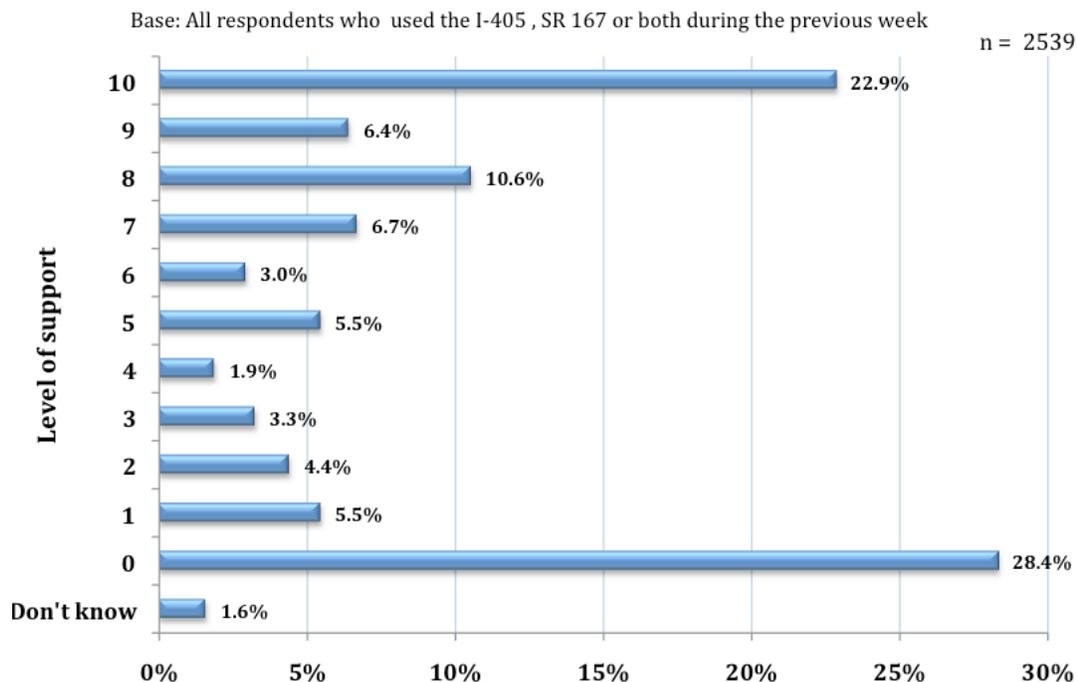
Are people supportive of express toll lanes on I-405 and SR 167?

Survey respondents were asked to rate their level of support (on a 0 to 10 scale, with 0 being very low support and 10 being very high support) for adding up to two new express toll lanes on I-405 that would connect with HOT lanes on SR 167.

Two-fifths are supportive of adding express toll lanes on I-405 to create a 50+ mile corridor from Puyallup to Lynnwood

Two-fifths (39.9%) reported being supportive (rating of '8' or more on a 0 to 10 scale) of adding up to two new express toll lanes on I-405 that would connect with HOT lanes on SR 167, with almost a quarter (22.9%) indicating very high support (rating of '10' on a 0 to 10 scale). On the other hand, almost two-fifths (38.3%) did not support adding express toll lanes to I-405 (rating of '2' or below on a 0 to 10 scale), with more than a quarter (28.4%) indicating very low support (rating of '0' on a 0 to 10 scale).

Figure 12: Supportiveness toward addition of up to two new express toll lanes on I-405



In addition, respondents' support for adding new express toll lanes on I-405 was found to be related to their age, the routes they used in the last 7 days, the congestion they experienced on I-405 and/or SR 167 in the past week, whether they had used the HOT lanes on SR 167 and whether they had *Good To Go!*TM accounts:

- The younger the age, the more supportive one was of adding up to two new express toll lanes on I-405.²
- Those who used SR 167 only were more supportive (rating of '8' or more on a 0 to 10 scale) of adding up to two new express toll lanes on I-405 (49.4%) as compared to those who used I-405 only (40.2%) or those who used both SR 167 and I-405 (40.2%).³
- The more congestion one experienced on I-405 in the last 7 days, the more supportive one was of adding up to two new express toll lanes on I-405.⁴
- The more congestion one experienced on SR 167 in the last 7 days, the more supportive one was of adding up to two new express toll lanes on I-405.⁵

2 Kendall's tau-c = -.102, p =.000

3 Cramer's V = .107; p =.000

4 Kendall's tau-c = .127, p =.000

5 Kendall's tau-c = .112, p =.000

- Those who had used HOT lanes on SR 167 before were more supportive (rating of ‘8’ or more on a 0 to 10 scale) of adding up to two new express toll lanes on I-405 (50.5%) as compared to those who had not used HOT lanes (35.6%).⁶
- Those who had *Good To Go!*TM accounts were more supportive (rating of ‘8’ or more on a 0 to 10 scale) of adding up to two new express toll lanes on I-405 (64.4%) as compared to those who did not have *Good To Go!*TM accounts (38.5%).⁷

How does electronic tolling impact support for express toll lanes?

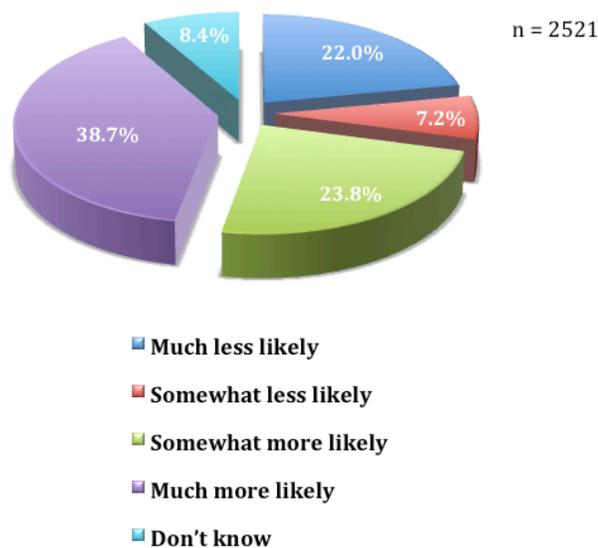
Survey respondents were provided with an explanation of electronic tolling and then asked how much electronic tolling impacted their support for express toll lanes.

Two-fifths are much more likely to support express toll lanes when tolls will be collected electronically

Almost two-fifths (38.7%) were much more likely to support express toll lanes when they know that there will be no toll booths and tolls will be collected electronically as vehicles travel at regular highway speeds.

Figure 13: Support toward express toll lanes after knowing that tolls will be collected electronically

Base: All respondents who used I-405, SR 167 or both during the past week



6 Cramer's V = .197; p =.003

7 Cramer's V = .190; p =.000

Respondents' support for express toll lanes, when they know that there will be no toll booths and tolls will be collected electronically, was found to be related to their age, income, the routes they used in the last 7 days, the congestion they experienced on I-405 and/or SR 167 in the past week, whether they had watched the express toll lanes video before taking the survey, whether they had used HOT lanes on SR 167 and whether they had *Good To Go!*TM accounts:

- The younger the age, the more the support for express toll lanes with tolls being collected electronically.⁸
- The higher the household income, the more the support for express toll lanes with tolls being collected electronically.⁹
- Those who used I-405 only were slightly more likely to support express toll lanes with tolls being collected electronically (43.3%) as compared to those who used both SR 167 and I-405 (40.9%) or who used SR 167 only (40%).¹⁰
- The more congestion one experienced on I-405 in the last 7 days, the more the support for express toll lanes with tolls being collected electronically.¹¹
- The more congestion one experienced on SR 167 in the last 7 days, the more the support for express toll lanes with tolls being collected electronically.¹²
- Those who had *not* watched the video before taking the survey were much more likely to support of express toll lanes with tolls being collected electronically (43.1%) as compared to those who had watched the video (34.6%).¹³
- Those who had previously used HOT lanes on SR 167 were much more likely to support express toll lanes with tolls being collected electronically (50.2%) as compared to those who had not used HOT lanes (33.9%).¹⁴
- Those who have *Good To Go!*TM accounts were much more likely to support express toll lanes with tolls being collected electronically (63.7%) as compared to those who did not (40.1%).¹⁵

8 Kendall's tau-c = -.109, p =.000

9 Kendall's tau-c = .114, p =.000

10 Cramer's V = .085; p =.000

11 Kendall's tau-c = .106, p =.000

12 Kendall's tau-c = .085, p =.000

13 Cramer's V = .209; p =.000

14 Cramer's V = .103; p =.000

15 Cramer's V = .140; p =.000

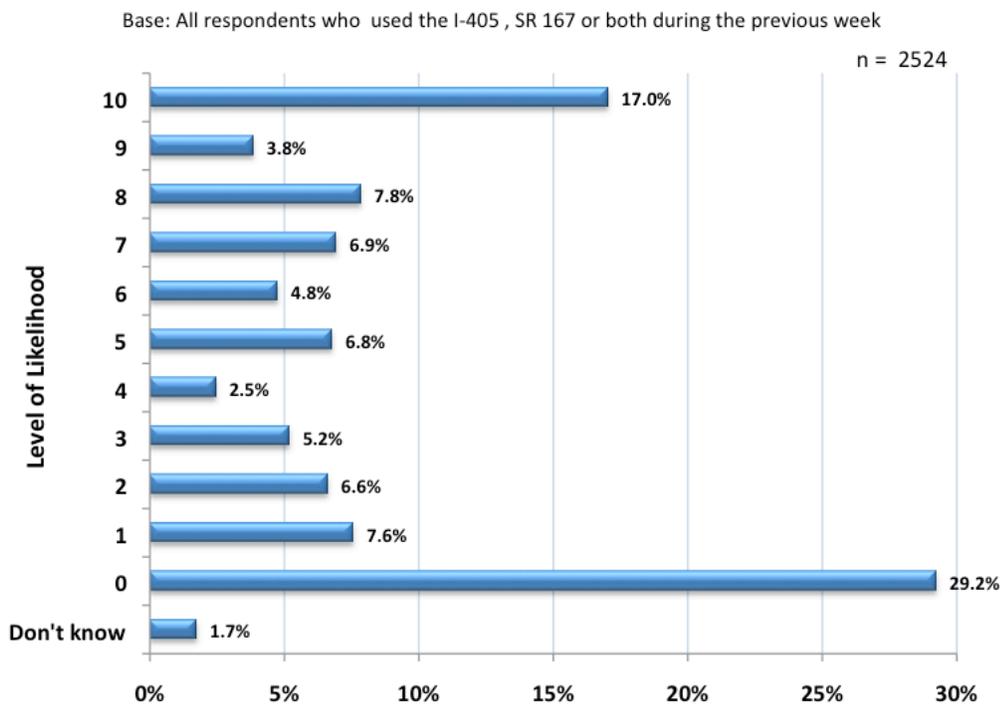
How likely are people to use express toll lanes for faster trip?

Survey respondents were asked to rate their likelihood (on a 0 to 10 scale, with 0 being very unlikely and 10 being very likely) to have used express toll lanes for a faster trip on their previous peak time travel on I-405 or SR 167.

Over a quarter said they would have been likely to use express toll lanes for faster trip

More than a quarter (28.6%) indicated that they would have been likely (rating of '8' or more on a 0 to 10 scale) to have used express toll lanes for a faster trip on their previous peak time travel on I-405 or SR 167. Interestingly, almost a fifth (17.0%) reported being very likely (rating of '10' on a 0 to 10 scale) to have used the lanes for a faster trip.

Figure 14: Likelihood to have used express toll lanes for a faster trip



Respondents' likelihood to say that they would have used express toll lanes for a faster trip was found to be related to their income, the routes they used in the last seven days, the congestion they experienced on I-405 and SR 167 in the last seven days, whether they had watched the express toll lanes video before taking the survey, whether they had used HOT lanes on SR 167 and whether they had *Good To Go!*TM accounts:

- The higher the household income, the more likely one was to say that they would have used express toll lanes for a faster trip.¹⁶
- Those who used both SR 167 and I-405 were more likely (rating of '8' or more on a 0 to 10 scale) to say that they would use express toll lanes for a faster trip (31.6%) as compared to those who used I-405 only (27.7%) or those who used SR 167 only (26.7%).¹⁷
- The more congestion one experienced on I-405 in the last seven days, the more likely one was to say that they would have used express toll lanes for a faster trip.¹⁸
- The more congestion one experienced on SR 167 in the last seven days, the more likely one was to say that they would have used express toll lanes for a faster trip.¹⁹
- Those who had *not* watched the video before taking the survey were more likely (rating of '8' or more on a 0 to 10 scale) to say that they would have used express toll lanes for a faster trip (27%) as compared to those who had watched the video (22.1%).²⁰
- Those who had previously used HOT lanes on SR 167 were more likely (rating of '8' or more on a 0 to 10 scale) to say that they would have used express toll lanes for a faster trip (44.1%) as compared to those who had not used HOT lanes (22.8%).²¹
- Those who have *Good To Go!*TM accounts were more likely (rating of '8' or more on a 0 to 10 scale) to say that they would use express toll lanes for a faster trip (57.7%) as compared to those who did not (26.7%).²²

16 Kendall's tau-c = .101, p =.000

17 Cramer's V = .130; p =.000

18 Kendall's tau-c = .158, p =.000

19 Kendall's tau-c = .137, p =.000

20 Cramer's V = .178; p =.016

21 Cramer's V = .249; p =.000

22 Cramer's V = .140; p =.000

How many days a week are people likely to use express toll lanes?

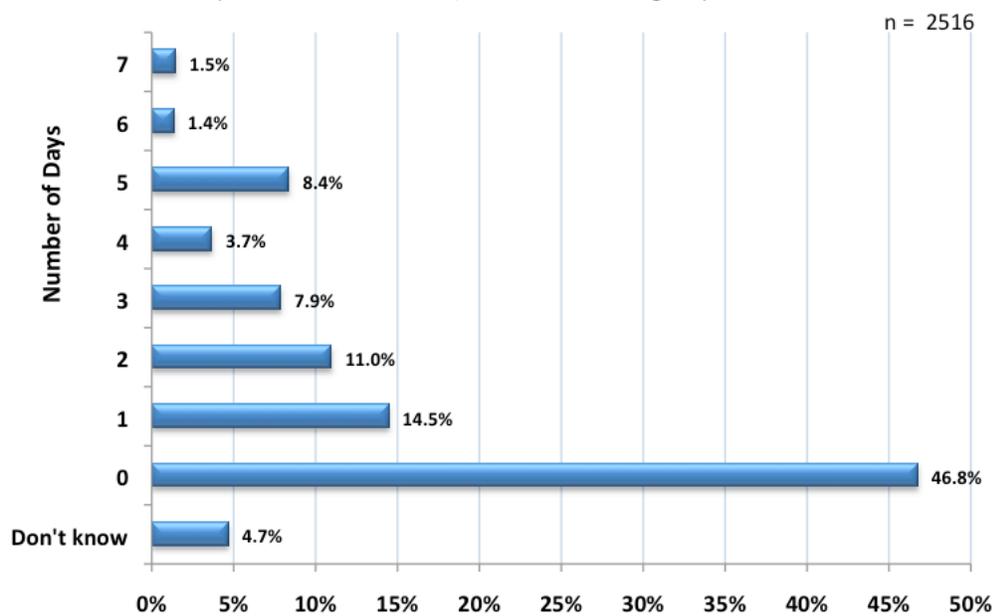
Respondents were asked to report the number of days in the last week that they would have been likely to use express toll lanes on I-405 or SR 167.

Fifteen percent would use express toll lanes four or more days a week

Of those who would use the express toll lanes, fifteen percent said they would have been likely to use express toll lanes on I-405 or SR 167 four or more days a week.

Figure 15: Likelihood of using express toll lanes in last week

Base: All respondents who used I-405, SR 167 or both during the previous week



In addition, it was found that:

- The longer the distance between their home and work, the more days respondents said they would have used express toll lanes on I-405 or SR 167.²³
- The more often one used SR 167 for work commute, the more likely one was to say that they would have used express toll lanes on I-405 or SR 167 more often.²⁴
- Those who had previously used HOT lanes on SR 167 were more likely to say that they would have used express toll lanes on I-405 or SR 167 four or more days in the last week (28.6%) as compared to those who had not used HOT lanes (13.7%).²⁵
- Those who have *Good To Go!*TM accounts were more likely to say that they would have used express toll lanes on I-405 or SR 167 four or more days in the last week (28.6%) as compared to those who did not (14.5%).²⁶

How important is it that revenue from express toll lanes be used to fund Eastside Corridor improvements, as opposed to other corridors?

Survey respondents were asked to rate how important (on a 0 to 10 scale, with 0 being very unimportant and 10 being very important) it was that revenue collected from express toll lanes on I-405 and SR 167 be used to fund improvements in that corridor as opposed to funding improvements in other travel corridors.

Over three-fifths think it is important to keep the toll money local

Over three-fifths (61%) thought that it was important (rating of '8' or above on a 0 to 10 scale) that revenue collected from express toll lanes on I-405 and SR 167 be used to fund improvements in that corridor as opposed to funding improvements in other travel corridors, with almost half (47.8%) rating it as very important (rating of '10' on a 0 to 10 scale). Conversely, less than a fifth (16.8%) rated it as unimportant (rating of '2' or below on a 0 to 10 scale), and only 12.5% thought that it was very unimportant (rating of '0' on a 0 to 10 scale).

23 Kendall's tau-c = .118, p =.000

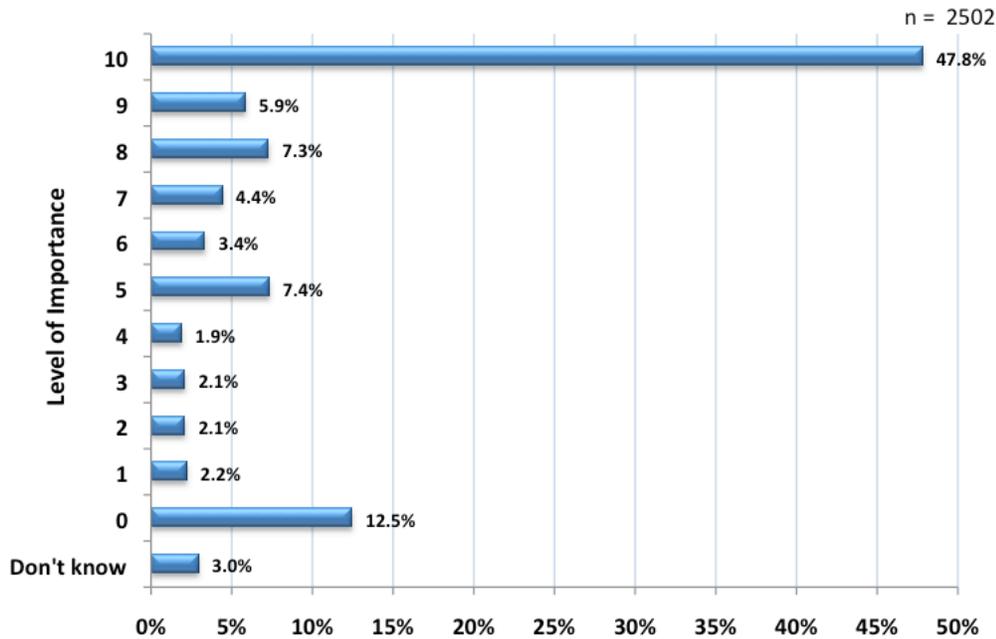
24 Kendall's tau-c = .112, p =.000

25 Cramer's V = .257; p =.000

26 Cramer's V = .167; p =.000

Figure 16: Importance of using the revenue collected from express toll lanes to fund improvements in I-405/SR 167 corridor as opposed to other corridors

Base: All respondents who used I-405, SR 167 or both during the previous week



The level of importance respondents attached to using the toll money to fund improvements only in the I-405/ SR 167 corridor as opposed to other corridors was found to be related to their age, the frequency of using I-405, the congestion they experienced on I-405 in the last seven days, and whether they had used HOT lanes on SR 167 before:

- The older one was, the more importance one attached to using the toll money to fund improvements only in I-405/ SR 167 corridor as opposed to other corridors.²⁷
- The more often one used I-405 in the last week, the more importance one attached to using the toll money to fund improvements only in I-405/ SR 167 corridor.²⁸
- The more congestion one experienced on I-405 in the last 7sevendays, the more importance one attached to using the toll money to fund improvements only in I-405/ SR 167 corridor.²⁹
- Those who had previously used HOT lanes on SR 167 attached more importance (rating of ‘8’ or more on a 0 to 10 scale) to using the toll money to fund improvements only in the I-405/ SR 167 corridor (69.9%) as compared to those who had not used HOT lanes (61.1%).³⁰

27 Kendall’s tau-c = .034, p =.019

28 Kendall’s tau-c = .074, p =.000

29 Kendall’s tau-c = .057, p =.000

30 Cramer’s V = .157; p =.006

What do people consider as value for money when it comes to paying a toll to use the express toll lanes?

Survey respondents were asked to imagine that they were traveling alone in the general purpose lanes on I-405 from Renton to Bellevue (or, for those who used SR 167, on SR 167 from Auburn to Renton) and that the average speed is 30 miles per hour at that time. They were then asked to indicate how many *more* miles per hour they would need to be able to travel, for them to decide to pay a toll and travel in the express toll lane. They were also asked to indicate the amount of a toll they were willing to pay for this trip, if they could travel in the express toll lane and increase their speed to 45 miles per hour.

People want to travel at an average additional speed of 26 mph

The average additional speed that respondents said they would need to be able to travel, for them to decide to pay a toll and travel in the express toll lanes, was 26 miles per hour (median additional speed = 25 mph; range = 1 to 50 mph more)

In addition, it was found that:

- The more often one used I-405 in the past week, the more likely one was to report a higher speed required to pay a toll and travel in the express toll lane.³¹
- The less congestion one experienced on SR 167 in the past week, the more likely one was to report a higher required speed to pay a toll and travel in the express toll lane.³²
- Those who had not used HOT lanes before were more likely to report a higher required speed (over 20 additional miles per hour) to pay a toll and travel in the express toll lane (60.3%) as compared to those who had used HOT lanes before (54.7%).³³
- The lower the household income, the more likely one was to report a higher required speed to pay a toll and travel in the express toll lane.³⁴

³¹ Kendall's tau-c = .066, p =.000

³² Kendall's tau-c = -.032, p =.209

³³ Cramer's V = .152; p =.002

³⁴ Kendall's tau-c = -.087, p =.000

- Males were more likely to report a higher required speed (over 20 additional miles per hour) to pay a toll and travel in the express toll lane (59%) as compared to women (52.9%).³⁵
- Whites were more likely to report a higher required speed (over 20 additional miles per hour) to pay a toll and travel in the express toll lane (65.4%) as compared to non-whites (55.2%).³⁶
- The more days one used I-405 to commute to work, the more likely one was to report a higher required speed to pay a toll and travel in the express toll lane.³⁷
- Those who did not have *Good To Go!*TM accounts were more likely to report a higher required speed (over 20 additional miles per hour) to pay a toll and travel in the express toll lane (53.9%), as compared to those who had *Good To Go!*TM accounts (41.5%).³⁸

People want the toll to be about a dollar and will pay more for congestion relief

The average toll amount that respondents were willing to pay to go from Renton to Bellevue (or from Renton to Auburn), if they could increase their speed to 45 mph, was 96 cents (median toll amount = 50 cents; range = 1 cent to \$30.00)

In addition, it was found that:

- Those who used I-405 only in the last seven days were willing to pay a higher (\$1.00 or more) toll (46%) as compared to those who used SR 167 only (34.4%) or those who used both routes (37%).³⁹
- The less often one used I-405 in the past week, the more willing one was to pay a higher toll to go from Renton to Bellevue if they could increase their speed to 45 mph.⁴⁰
- The more congestion one experienced on I-405 in the past week, the more willing one was to pay a higher toll to go from Renton to Bellevue if they could increase their speed to 45 mph.⁴¹

35 Cramer's V = .083; p = .019

36 Cramer's V = .099; p = .002

37 Kendall's tau-c = .065, p = .001

38 Cramer's V = .132; p = .000

39 Cramer's V = .094; p = .000

40 Kendall's tau-c = .069, p = .000

41 Kendall's tau-c = -.071, p = .000

- The fewer days one used SR 167 in the past week, the more willing one was to pay a higher toll to go from Renton to Auburn if they could increase their speed to 45 mph.⁴²
- The more congestion one experienced on SR 167 in the past week, the more willing one was to pay a higher toll to go from Renton to Auburn if they could increase their speed to 45 mph.⁴³
- Those who had used HOT lanes before were willing to pay a higher (\$1.00 or more) toll (42.1%) as compared to those who had not used HOT lanes before (33.9%).⁴⁴
- The younger the age, the more willing one was to pay a higher toll to go from Renton to Bellevue (or from Renton to Auburn) if they could increase their speed to 45 mph.⁴⁵
- The higher the household income, the more willing one was to pay a higher toll to go from Renton to Bellevue (or from Renton to Auburn) if they could increase their speed to 45 mph.⁴⁶
- Those who have *Good To Go!*TM accounts were willing to pay a higher (\$1 or more) toll (52.4%), as compared to those who did not have *Good To Go!*TM accounts (40.9%).⁴⁷

Did the express toll lane video increase understanding and support for express toll lanes?

After the survey had been up and running for about two weeks, WSDOT posted an educational video about express toll lanes on the Eastside Corridor Tolling Study Web site. At the same time, a series of questions about the video were added to the survey. Survey respondents were asked whether they had watched the express toll lanes video before they had taken the survey, whether the video increased their understanding of express toll lanes, and whether it increased, decreased or did not affect their support for express toll lanes.

Majority have yet to watch the express toll lanes video

The vast majority (79.7%) reported that they had not watched the express toll lanes video before they had taken the survey.

42 Kendall's tau-c = -.084, p =.000

43 Kendall's tau-c = -.083, p =.000

44 Cramer's V = .152; p =.003

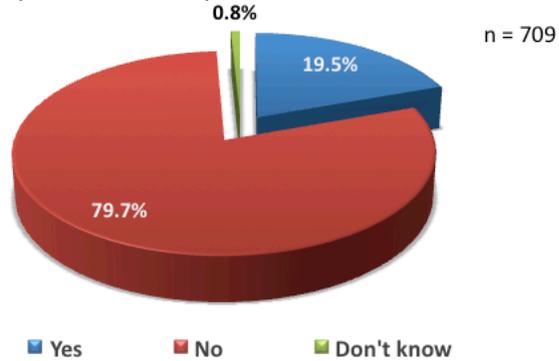
45 Kendall's tau-c = -.113, p =.000

46 Kendall's tau-c = .098, p =.000

47 Cramer's V = .123; p =.000

Figure 17: Did you watch the express toll lane video before taking the survey?

Base: All respondents who used I-405, SR 167 or both during the past week and who were presented with this question

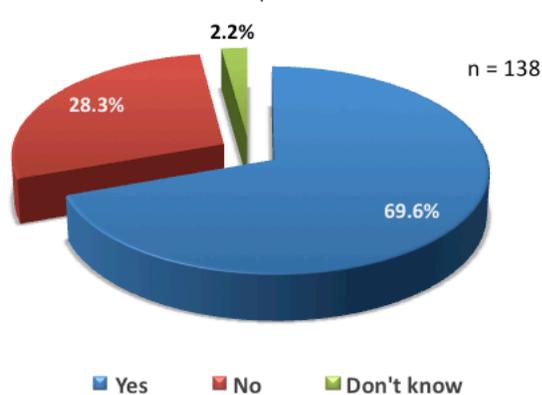


Watching the video leads to increased understanding of express toll lanes

Of those who had watched the video before taking the survey, more than two-thirds (69.6%) said it increased their understanding of express toll lanes.

Figure 18: Increase in understanding of express toll lanes after watching video

Base: All respondents who had watched the express toll lane video before taking the survey

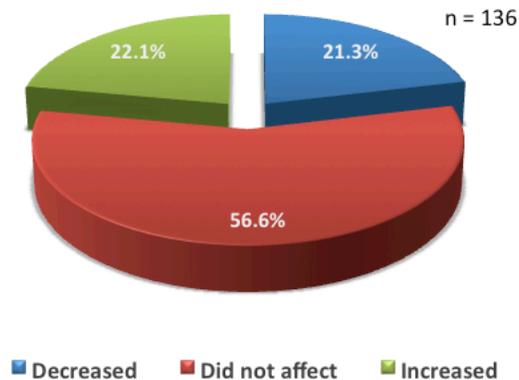


One-fifth report increase in support for express toll lanes after watching the video

Of those who watched the video, more than one-fifth (22.1%) said it increased their support for express toll lanes. While more than half (55.6%) said it did not affect their support, the remaining 21 percent said it decreased their support for express toll lanes.

Figure 19: Change in support for express toll lanes after watching the video

Base: All respondents who had watched the express toll lane video before taking the survey



Further, women (34.2%) were found to be more likely to increase their support of express toll lanes after watching the video as compared to men (18.2%). Inversely, men (26.1%) were more likely to decrease their support after watching the video as compared to women (7.9%).⁴⁸

Are there market segments that have higher or lower support for express toll lanes on I-405?

A cluster analysis was performed to identify market segments relative to support for express toll lanes. Cluster analysis is an exploratory data analysis technique designed to reveal natural groupings within a collection of data. As such, cluster analysis can suggest potentially useful ways of identifying market segments. Four clusters were identified:

48 Cramer's V = .240; p = .026

Cluster 1 – No Way (17%; n = 433)	Cluster 2 – Possibly (32%; n = 818)	Cluster 3 – Probably (15%; n = 386)	Cluster 4 – I’m Sold (36%; n = 900)
<ul style="list-style-type: none"> • Show very little support for plan to create a 50+ miles of express toll and HOT lanes on I-405/SR 167 corridor • Show little support for express toll lanes when they get to know that tolls will be collected electronically • Least likely to use express toll lanes on I-405 or SR 167 during their previous trip if they were available • Likely to have used express toll lanes on I-405 or SR 167 only once during the previous week if they were available • Think it is very unimportant that express toll revenue be used for I-405/SR 167 corridor improvements only • Willing to pay less than half a dollar as toll for using express toll lanes • Less likely to have <i>Good To Go!</i>™ accounts (6.7%) • Least likely to think that traffic is congested on I-405 (88.8%) Least likely to have used HOT lanes on SR 167 before (25.5%) • More likely to be oldest (45-64 years) 	<ul style="list-style-type: none"> • Show little support for plan to create a 50+ miles of express toll and HOT lanes on I-405/SR 167 corridor • Show moderate support for express toll lanes when they get to know that tolls will be collected electronically • Less likely to use express toll lanes on I-405 or SR 167 during their previous trip if they were available • Likely to have used express toll lanes on I-405 or SR 167 only once during the previous week if they were available • Think it is very important that express toll revenue be used for I-405/SR 167 corridor improvements only • Willing to pay less than a dollar as toll for using express toll lanes • Least likely to have <i>Good To Go!</i>™ accounts (3.6%) • More likely to think that traffic is congested on I-405 (89.6%) • Less likely to have used HOT lanes on SR 167 before (38.9%) • More likely to be middle age (35-64 years). 	<ul style="list-style-type: none"> • Show high support for plan to create a 50+ miles of express toll and HOT lanes on I-405/SR 167 corridor • Show high support for express toll lanes when they get to know that tolls will be collected electronically • Likely to use express toll lanes on I-405 or SR 167 during their previous trip if they were available • Likely to have used express toll lanes on I-405 or SR 167 three times during the previous week if they were available • Think it is unimportant that express toll revenue be used for I-405/SR 167 corridor improvements only • Willing to pay a little over two dollars as toll for using express toll lanes • Less likely to have <i>Good To Go!</i>™ accounts (8.7%) • More likely to think that traffic is congested on I-405 (92.9%) • More likely to have used HOT lanes on SR 167 before (43%) • More likely to be youngest (25-54 years) 	<ul style="list-style-type: none"> • Show very high support for plan to create a 50+ miles of express toll and HOT lanes on I-405/SR 167 corridor • Show high support for express toll lanes when they get to know that tolls will be collected electronically • Very likely to use express toll lanes on I-405 or SR 167 during their previous trip if they were available • Likely to have used express toll lanes on I-405 or SR 167 four times during the previous week if they were available • Think it is very important that express toll revenue be used for I-405/SR 167 corridor improvements only • Willing to pay a little over two dollars as toll for using express toll lanes • Most likely to have <i>Good To Go!</i>™ accounts (13.8%) • Most likely to think that traffic is congested on I-405 (95%) • Most likely to have used HOT lanes on SR 167 before (51.5%) • More likely to be younger (25 – 64 years)

As the cluster names suggest, there are gradations of support for express toll lanes based on one's age, , electronic tolling, likelihood and frequency of using express toll lanes, importance attached to keeping the toll revenue local to I-405/SR 167 corridor, willingness to pay higher toll, having a *Good To Go!*™ account, and experience with traffic congestion on I-405 and use of HOT lanes on SR 167.

Calls for customization of education and outreach

Based on these gradations (see table above), one may say that there is the need to customize outreach strategies based on what segment one belongs to. Whereas the “No Ways” may be a lost cause and the “I’m Sold” may be relatively easy to approach, there may be a need for different education and outreach plans for the “Possibles” and the “Probables”. While the “Possibles” could potentially be persuaded to support express toll lanes by providing information about the benefits and advantages of using express toll lanes and how toll revenue will be used for improvement in the I-405/SR 167 corridor, the “Probables” may be won over by informing them of the advantages of *Good To Go!*™ accounts.

What factors best predict if one will support express toll lanes on I-405?

Since the cross-tabulation analysis presented thus far only investigates the relationship between two variables at a time (without controlling for other variables or any interaction effects), logistical regression analysis was performed to more fully understand the relationship of support for express toll lanes with other variables.

It was found that the odds of someone supporting express toll lanes:

- **Users:** Increased by 1.812 times when they have had previous experience of using HOT lanes on SR 167.
- **Driven in congestion:** Increased by 1.483 times for each increase in the level of traffic congestion one had experienced on SR 167 during the previous week.
- **Younger:** Decreased by .813 times for each increase in age category.

Based on these findings, one may say that experience with tolled lanes under congested conditions plays an important role in support for express toll lanes, especially among those who are younger.

Recommendations for Next Steps

While attitudes towards different aspects of express toll lanes and tolling create gradations in support for express toll lanes on I-405/SR 167 corridor, it is experience with tolled lanes that acts as the most important factor in one's support toward express toll lanes on I-405. Consequently, outreach should especially involve those who have experience using the SR 167 HOT lanes to act as advocates and help generate further support for express toll lanes on I-405/SR 167 corridor.

Appendix A: Final Online Survey Draft

1. Express Toll Lanes Survey

Please take a few minutes to complete this questionnaire to help the Washington State Department of Transportation reduce traffic congestion and improve travel in the Puget Sound region.

All your responses will be completely anonymous and will only be reported in aggregate with those of others who complete the questionnaire.

The survey is best viewed by maximizing your screen. Please be sure to scroll down to the bottom of each page and click the "Next" button to proceed. The bar at the top of each page tells you how much of the survey you have completed. The survey is programmed so that if you need to stop and complete it at a later time you will be brought back to where you left off.

Please complete the survey by September 4, 2009

2. Screener Question (q1)

* Do you or does anyone in your household work for a transportation agency?

- No
- Yes
- Don't know

3. Screener question 2

* Which of the following did you use at least once in the last 7 days?

- I-405 only
- SR 167 only
- Both I-405 and SR 167
- Neither I-405 nor SR 167

4. Support for Express Toll Lanes (q7)

Express toll lanes are lanes for carpools and buses that are also open to solo drivers who choose to pay a toll for a faster, more reliable trip when they need it most. These new lanes would be in addition to existing general purpose traffic lanes. Toll rates adjust with the level of congestion to ensure that traffic in the express toll lane is free flowing (at least 45 miles per hour) even when the regular lanes are congested

WSDOT is considering adding up to two express toll lanes on I-405 that would connect with HOT lanes on SR 167, creating a 50+ mile corridor from Puyallup to Lynnwood. These new lanes would be in addition to existing general purpose traffic lanes. On a scale of 0-10, where 0= very low support and 10 = very high support, how much do you support this plan?

	0	1	2	3	4	5	6	7	8	9	10	Don't know
Level of support	<input type="radio"/>											

5. Support for Express Toll Lanes (q8)

Current technology allows tolls to be collected electronically as vehicles travel at regular highway speeds. There would be no toll booths. Knowing this, does this make you more or less likely to support the introduction of express toll lanes? Would you say:

- Much less likely
- Somewhat less likely
- Somewhat more likely
- Much more likely
- Don't know

6. Support for Express Toll Lanes (q9)

Thinking about the last time you traveled on I-405 or SR 167 during the peak commute times, how likely would you have been to use express toll lanes for a faster trip? Please use a scale of 0-10, where 0= very unlikely and 10 = very likely.

	0	1	2	3	4	5	6	7	8	9	10	Don't know
Level of likelihood	<input type="radio"/>											

7. Support for Express Toll Lanes (q10)

How many days last week do you think you would have been likely to use express toll lanes on I-405 or SR 167?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- Don't know

8. Support for Express Toll Lanes (q11)

How important is it that revenue collected from express toll lanes on I-405 and SR 167 be used to fund improvements in this corridor as opposed to funding improvements in other travel corridors? Please use a scale of 0-10, where 0= very unimportant and 10 = very important.

	0	1	2	3	4	5	6	7	8	9	10	Don't know
Level of importance	<input type="radio"/>											

9. Support for Express Toll Lanes (q12)

Imagine that you are traveling alone in the general purpose lanes on I-405 from Renton to Bellevue (or for those who use SR 167 -- on SR 167 from Auburn to Renton) and that the average speed is 30 miles per hour at this time. How many MORE miles per hour would you need to be able to travel for you to decide to pay a toll and travel in the express toll lane?

Miles per hour

10. Support for Express Toll Lanes (q13)

Imagine that you are traveling alone in the general purpose lanes on I-405 from Renton to Bellevue (or for those who use SR 167 -- on SR 167 from Auburn to Renton) and that the average speed is 30 miles per hour at this time. If you could travel in the express toll lane and increase your speed to 45 miles per hour how much of a toll would you be willing to pay for this trip? PLEASE ENTER DOLLARS AND CENTS. DO NOT USE THE \$ SIGN.

11. Travel Behavior (q14)

Do you have a Good to Go!™ toll transponder account?

- No
 Yes

12. Video

* Did you watch the Express Toll Lane video before taking this survey?

- No
 Yes
 Don't know

13. Video

Did the video increase your understanding of express toll lanes?

- No
 Yes
 Don't know

14. Video

Did the video increase, decrease, or not affect your support of express toll lanes?

- Decreased
 Did not affect
 Increased

15. I-405 Screener question

* Did you use I-405 at least once in the last 7 days?

- No
 Yes

16. I-405

In the last 7 days how many days did you travel on I-405?

- 1 2 3 4 5 6 7

17. I-405

* Did you travel on I-405 on the weekdays in the last 7 days?

- No
 Yes

18. I-405

What time of the day did you travel on I-405 during weekdays in the last week? Would you say: (choose all that apply)

- AM peak (5 am to 9 am)
 Mid-day (after 9 am to before 3 pm)
 PM peak (3 pm to 7 pm)
 Evening (after 7 pm to 10pm)
 Over night time (after 10 pm to before 5 am)

19. I-405

Did you travel on I-405 on the weekend days in the last 7 days?

- No
 Yes

20. I-405

In the last 7 days how many days did you use each of the following ways to travel on I-405?

	0	1	2	3	4	5	6	7
Drove alone	<input type="radio"/>							
Carpooled with household members	<input type="radio"/>							
Carpooled with non-household members	<input type="radio"/>							
Took the bus	<input type="radio"/>							
Vanpooled	<input type="radio"/>							
Other	<input type="radio"/>							

Please specify "other" travel mode

21. I-405

How many days did you use I-405 in the last 7 days for each of the trip purposes? Would you say:

	0	1	2	3	4	5	6	7
Travel to or from work	<input type="radio"/>							
Travel to or from school	<input type="radio"/>							
Errands/shopping	<input type="radio"/>							
Non-commute work-related travel	<input type="radio"/>							
Recreational activities	<input type="radio"/>							
Visit family or friends	<input type="radio"/>							
Other	<input type="radio"/>							

Please specify "other" trip purpose

22. I-405

**In general, how congested was traffic when you traveled on I-405 during the last 7 days ?
Would you say:**

- Not congested at all
- Moderately congested
- Seriously congested
- Very seriously congested

23. SR 167 Screener question

*** Did you use SR 167 at least once in the last 7 days?**

- No
- Yes

24. SR 167

In the last 7 days how many days did you travel on SR 167?

- 1
- 2
- 3
- 4
- 5
- 6
- 7

25. SR 167

*** Did you travel on SR 167 on the weekdays in the last 7 days?**

- No
- Yes

26. SR 167

What time of the day did you travel on SR 167 during weekdays in the last week? Would you say: (choose all that apply)

- AM peak (5 am to 9 am)
- Mid-day (after 9 am to before 3 pm)
- PM peak (3 pm to 7 pm)
- Evening (after 7 pm to 10pm)
- Over night time (after 10 pm to before 5 am)

27. SR 167

Did you travel on SR 167 on the weekend days in the last 7 days?

- No
- Yes

28. SR 167

In the last 7 days how many days did you use each of the following ways to travel on SR 167?

	0	1	2	3	4	5	6	7
Drove alone	<input type="radio"/>							
Carpooled with household members	<input type="radio"/>							
Carpooled with non-household members	<input type="radio"/>							
Took the bus	<input type="radio"/>							
Vanpooled	<input type="radio"/>							
Other	<input type="radio"/>							

Please specify "other" travel mode

29. SR 167

How many days did you use SR 167 in the last 7 days for each of the trip purposes? Would you say:

	0	1	2	3	4	5	6	7
Travel to or from work	<input type="radio"/>							
Travel to or from school	<input type="radio"/>							
Errands/shopping	<input type="radio"/>							
Non-commute work-related travel	<input type="radio"/>							
Recreational activities	<input type="radio"/>							
Visit family or friends	<input type="radio"/>							
Other	<input type="radio"/>							

Please specify "other" trip purpose

30. SR 167

**In general, how congested was traffic when you traveled on SR 167 during the last 7 days?
Would you say:**

- Not congested at all
- Moderately congested
- Seriously congested
- Very seriously congested

31. SR 167

Have you ever used the HOT lanes on SR 167?

- No
- Yes

32. Demographics (q25)

We have a few questions about yourself and your household. Your answers will be strictly confidential and will be combined with those of other respondents for statistical analysis purposes.

What is your home zip code?

33. Demographics (q24)

What is the approximate one-way distance in miles between your home and your work location?

- | | |
|-----------------------------|------------------------------------|
| <input type="radio"/> 0-5 | <input type="radio"/> 36-40 |
| <input type="radio"/> 6-10 | <input type="radio"/> 41-45 |
| <input type="radio"/> 11-15 | <input type="radio"/> 46-50 |
| <input type="radio"/> 16-20 | <input type="radio"/> 51 or more |
| <input type="radio"/> 21-25 | <input type="radio"/> Don't know |
| <input type="radio"/> 26-30 | <input type="radio"/> Not employed |
| <input type="radio"/> 31-35 | |

34. Demographics (q26)

Which of the following broad ranges includes your age?

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or older

35. Demographics (q27)

Which of the following income categories applies to your household's total annual income (before taxes) for 2008?

- Under \$20,000
- \$20,000 to less than \$30,000
- \$30,000 to less than \$55,000
- \$55,000 to less than \$75,000
- \$75,000 to less than 90,000
- \$90,000 to less than \$125,000
- \$125,000 to less than \$150,000
- \$150,000 or above

36. Demographics (q28)

Which of the following best describes your ethnic/racial background?

- White/Caucasian (not Hispanic/Latino background)
- White Caucasian (Hispanic/Latino background)
- Black/African American
- Asian/Pacific Islander
- Hispanic/Latino
- Native American
- Multi-racial
- Other

Please specify "other"

37. Demographics (q29)

What is your gender?

- Male
 Female

38. Contact

Please provide us your name and email address if you wish to get added to our mailing list.

Name:

Email Address:

39. Thank you

Those are all the questions I have for you. Thank you very much for your participation

Appendix B: Topline Results

Which of the following did you use at least once in the last 7 days?			Response Percent	Response Count
I-405 only			55.2%	1,471
SR 167 only			2.9%	78
Both I 405 and SR 167			38.9%	1,036
Neither I-405 nor SR 167			3.0%	81
answered question				2,666
skipped question				78

Note: Those who used neither I-405 nor SR 167 did not answer any of the other survey questions.

WSDOT is considering adding up to two express toll lanes on I-405 that would connect with HOT lanes on SR 167, creating a 50+ mile corridor from Puyallup to Lynnwood. These new lanes would be in addition to existing general purpose traffic lanes. On a scale of 0-10, where 0= very low support and 10 = very high support, how much do you support this plan?														Rating Average	Response Count
	0	1	2	3	4	5	6	7	8	9	10	Don't know			
Level of support	28.4% (720)	5.5% (139)	4.4% (112)	3.3% (83)	1.9% (48)	5.5% (139)	3.0% (75)	6.7% (170)	10.6% (268)	6.4% (163)	22.9% (581)	1.6% (41)	4.95	2,539	
answered question														2,539	
skipped question														205	

Current technology allows tolls to be collected electronically as vehicles travel at regular highway speeds. There would be no toll booths. Knowing this, does this make you more or less likely to support the introduction of express toll lanes? Would you say:			Response Percent	Response Count
Much less likely			22.0%	555
Somewhat less likely			7.2%	181
Somewhat more likely			23.8%	599
Much more likely			38.7%	975
Don't know			8.4%	211
answered question				2,521
skipped question				223

Thinking about the last time you traveled on I-405 or SR 167 during the peak commute times, how likely would you have been to use express toll lanes for a faster trip? Please use a scale of 0-10, where 0= very unlikely and 10 = very likely.

	0	1	2	3	4	5	6	7	8	9	10	Don't know	Rating Average	Response Count
Level of likelihood	29.2% (738)	7.6% (191)	6.6% (167)	5.2% (131)	2.5% (62)	6.8% (171)	4.8% (120)	6.9% (175)	7.8% (198)	3.8% (97)	17.0% (430)	1.7% (44)	4.25	2,524
answered question													2,524	
skipped question													220	

How many days last week do you think you would have been likely to use express toll lanes on I-405 or SR 167?

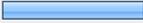
	Response Percent	Response Count
0	46.8%	1,177
1	14.5%	364
2	11.0%	278
3	7.9%	200
4	3.7%	92
5	8.4%	212
6	1.4%	36
7	1.5%	38
Don't know	4.7%	119
answered question		2,516
skipped question		228

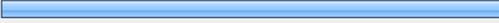
How important is it that revenue collected from express toll lanes on I-405 and SR 167 be used to fund improvements in this corridor as opposed to funding improvements in other travel corridors? Please use a scale of 0-10, where 0= very unimportant and 10 = very important.

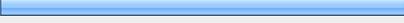
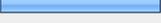
	0	1	2	3	4	5	6	7	8	9	10	Don't know	Rating Average	Response Count
Level of importance	12.5% (312)	2.2% (56)	2.1% (53)	2.1% (53)	1.9% (48)	7.4% (184)	3.4% (84)	4.4% (111)	7.3% (183)	5.9% (147)	47.8% (1,197)	3.0% (74)	6.98	2,502
answered question													2,502	
skipped question													242	

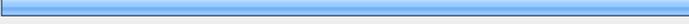
Do you have a Good to Go!™ toll transponder account?

	Response Percent	Response Count
No	91.5%	2,248
Yes	8.5%	210
answered question		2,458
skipped question		286

Did you watch the Express Toll Lane video before taking this survey?		
	Response Percent	Response Count
No 	79.7%	565
Yes 	19.5%	138
Don't know 	0.8%	6
answered question		709
skipped question		2,035

Did the video increase your understanding of express toll lanes?		
	Response Percent	Response Count
No 	28.3%	39
Yes 	69.6%	96
Don't know 	2.2%	3
answered question		138
skipped question		2,606

Did the video increase, decrease, or not affect your support of express toll lanes?		
	Response Percent	Response Count
Decreased 	21.3%	29
Did not affect 	56.6%	77
Increased 	22.1%	30
answered question		136
skipped question		2,608

Did you use I-405 at least once in the last 7 days?		
	Response Percent	Response Count
No 	3.6%	88
Yes 	96.4%	2,372
answered question		2,460
skipped question		284

In the last 7 days how many days did you travel on I-405?		
		Response Percent Response Count
1		9.7% 229
2		12.0% 283
3		12.7% 301
4		12.3% 290
5		21.2% 501
6		12.3% 292
7		19.9% 471
		answered question 2,367
		skipped question 377

Did you travel on I-405 on the weekdays in the last 7 days?		
		Response Percent Response Count
No		7.0% 167
Yes		93.0% 2,203
		answered question 2,370
		skipped question 374

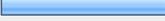
What time of the day did you travel on I-405 during weekdays in the last week? Would you say: (choose all that apply)		
		Response Percent Response Count
AM peak (5 am to 9 am)		56.9% 1,249
Mid-day (after 9 am to before 3 pm)		51.1% 1,122
PM peak (3 pm to 7 pm)		74.8% 1,643
Evening (after 7 pm to 10pm)		40.0% 879
Over night time (after 10 pm to before 5 am)		9.9% 217
		answered question 2,197
		skipped question 547

Did you travel on I-405 on the weekend days in the last 7 days?		
		Response Percent Response Count
No		20.6% 485
Yes		79.4% 1,867
		answered question 2,352
		skipped question 392

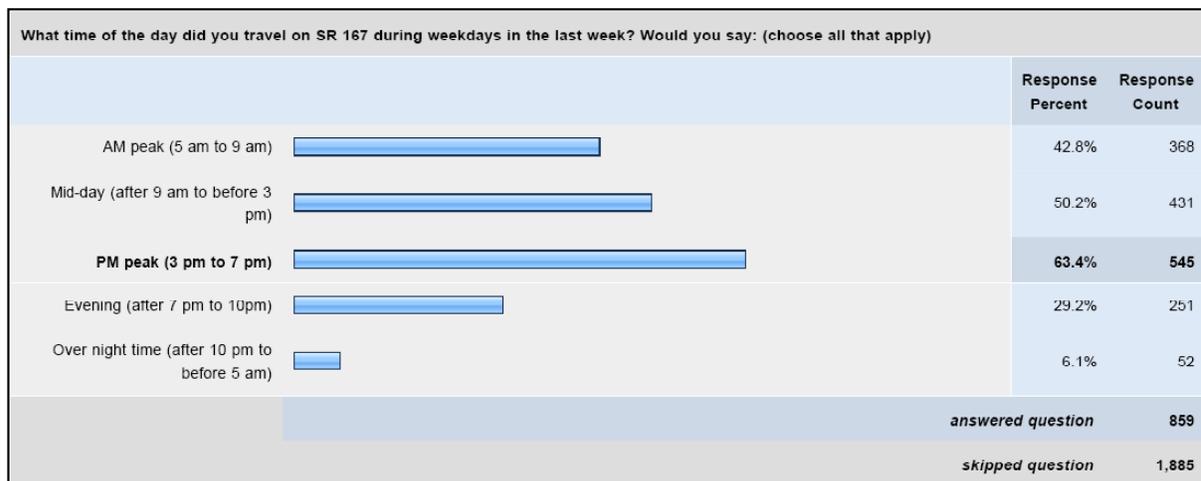
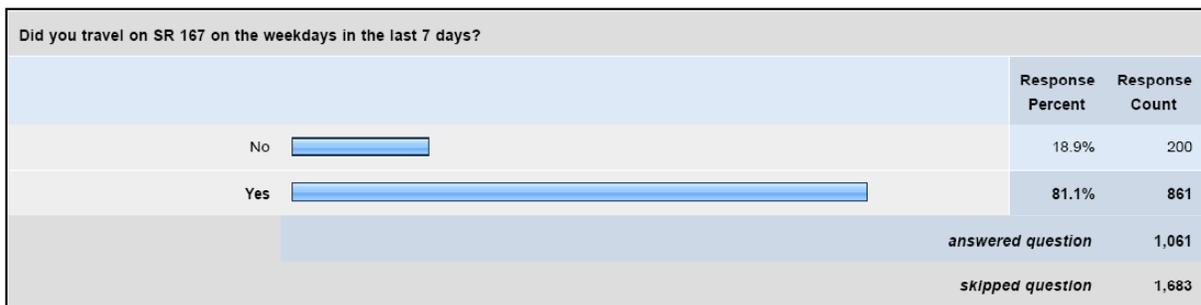
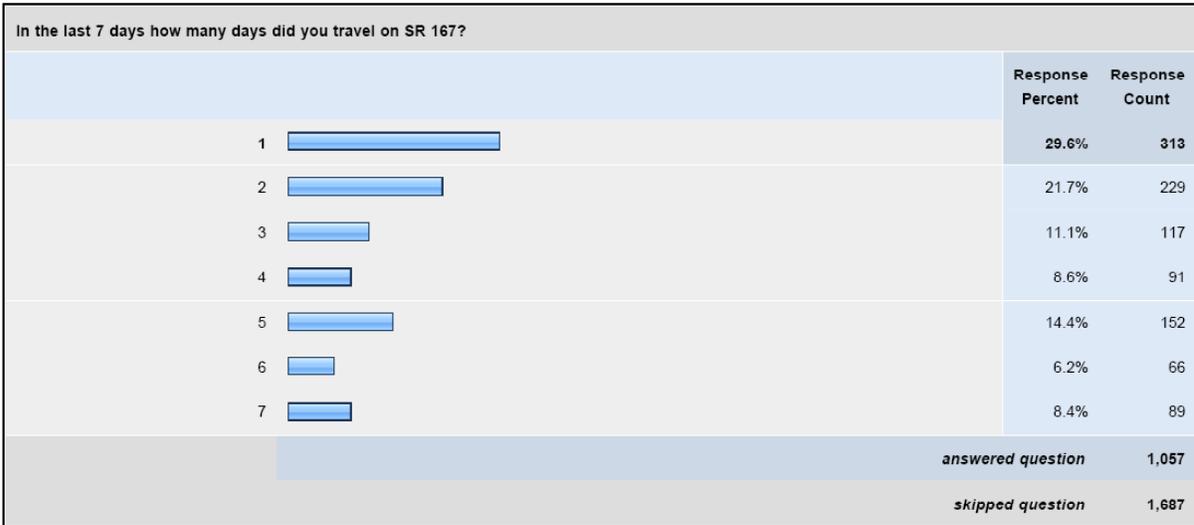
In the last 7 days how many days did you use each of the following ways to travel on I-405?										
	0	1	2	3	4	5	6	7	Rating Average	Response Count
Drove alone	7.9% (165)	18.7% (391)	14.6% (305)	12.3% (257)	9.4% (196)	21.3% (445)	6.7% (139)	9.0% (188)	3.32	2,086
Carpooled with household members	24.6% (428)	27.5% (479)	24.6% (428)	10.3% (180)	5.5% (95)	3.8% (66)	1.4% (25)	2.3% (40)	1.73	1,741
Carpooled with non-household members	66.0% (785)	16.9% (201)	8.9% (106)	3.2% (38)	2.1% (25)	2.2% (26)	0.2% (2)	0.5% (6)	0.68	1,189
Took the bus	85.0% (932)	4.2% (46)	1.8% (20)	1.9% (21)	2.7% (30)	3.9% (43)	0.1% (1)	0.4% (4)	0.47	1,097
Vanpooled	95.2% (991)	0.4% (4)	0.3% (3)	0.8% (8)	1.2% (12)	2.2% (23)	0.0% (0)	0.0% (0)	0.19	1,041
Other	92.4% (741)	1.9% (15)	1.6% (13)	1.6% (13)	0.5% (4)	1.4% (11)	0.2% (2)	0.4% (3)	0.23	802
Please specify "other" travel mode										75
answered question										2,327
skipped question										417

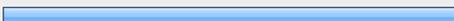
In the last 7 days how many days did you use each of the following ways to travel on I-405?										
	0	1	2	3	4	5	6	7	Rating Average	Response Count
Drove alone	7.9% (165)	18.7% (391)	14.6% (305)	12.3% (257)	9.4% (196)	21.3% (445)	6.7% (139)	9.0% (188)	3.32	2,086
Carpooled with household members	24.6% (428)	27.5% (479)	24.6% (428)	10.3% (180)	5.5% (95)	3.8% (66)	1.4% (25)	2.3% (40)	1.73	1,741
Carpooled with non-household members	66.0% (785)	16.9% (201)	8.9% (106)	3.2% (38)	2.1% (25)	2.2% (26)	0.2% (2)	0.5% (6)	0.68	1,189
Took the bus	85.0% (932)	4.2% (46)	1.8% (20)	1.9% (21)	2.7% (30)	3.9% (43)	0.1% (1)	0.4% (4)	0.47	1,097
Vanpooled	95.2% (991)	0.4% (4)	0.3% (3)	0.8% (8)	1.2% (12)	2.2% (23)	0.0% (0)	0.0% (0)	0.19	1,041
Other	92.4% (741)	1.9% (15)	1.6% (13)	1.6% (13)	0.5% (4)	1.4% (11)	0.2% (2)	0.4% (3)	0.23	802
Please specify "other" travel mode										75
answered question										2,327
skipped question										417

How many days did you use I-405 in the last 7 days for each of the trip purposes? Would you say:										
	0	1	2	3	4	5	6	7	Rating Average	Response Count
Travel to or from work	23.1% (417)	5.5% (100)	7.2% (129)	6.7% (121)	8.1% (146)	43.0% (775)	3.1% (55)	3.3% (60)	3.29	1,803
Travel to or from school	91.6% (955)	2.3% (24)	1.8% (19)	1.2% (13)	0.7% (7)	1.9% (20)	0.3% (3)	0.2% (2)	0.25	1,043
Errands/shopping	18.8% (308)	28.5% (466)	25.2% (412)	11.9% (195)	6.1% (99)	4.3% (71)	1.0% (17)	4.0% (66)	1.95	1,634
Non-commute work-related travel	54.8% (658)	16.0% (192)	13.0% (156)	6.4% (77)	3.4% (41)	3.1% (37)	1.1% (13)	2.2% (26)	1.12	1,200
Recreational activities	20.3% (417)	32.1% (473)	24.1% (355)	7.5% (110)	3.9% (58)	1.7% (25)	0.5% (8)	1.9% (28)	1.43	1,474
Visit family or friends	35.6% (485)	34.2% (466)	17.1% (233)	6.5% (89)	3.2% (43)	1.3% (18)	0.4% (6)	1.8% (24)	1.22	1,364
Other	81.0% (643)	9.2% (73)	4.9% (39)	1.5% (12)	1.3% (10)	0.9% (7)	0.4% (3)	0.9% (7)	0.41	794
Please specify "other" trip purpose										123
answered question										2,300
skipped question										444

In general, how congested was traffic when you traveled on I-405 during the last 7 days? Would you say:			Response Percent	Response Count
Not congested at all			8.1%	188
Moderately congested			62.8%	1,455
Seriously congested			23.1%	536
Very seriously congested			6.0%	139
answered question				2,318
skipped question				426

Did you use SR 167 at least once in the last 7 days?			Response Percent	Response Count
No			56.1%	1,352
Yes			43.9%	1,060
answered question				2,412
skipped question				332



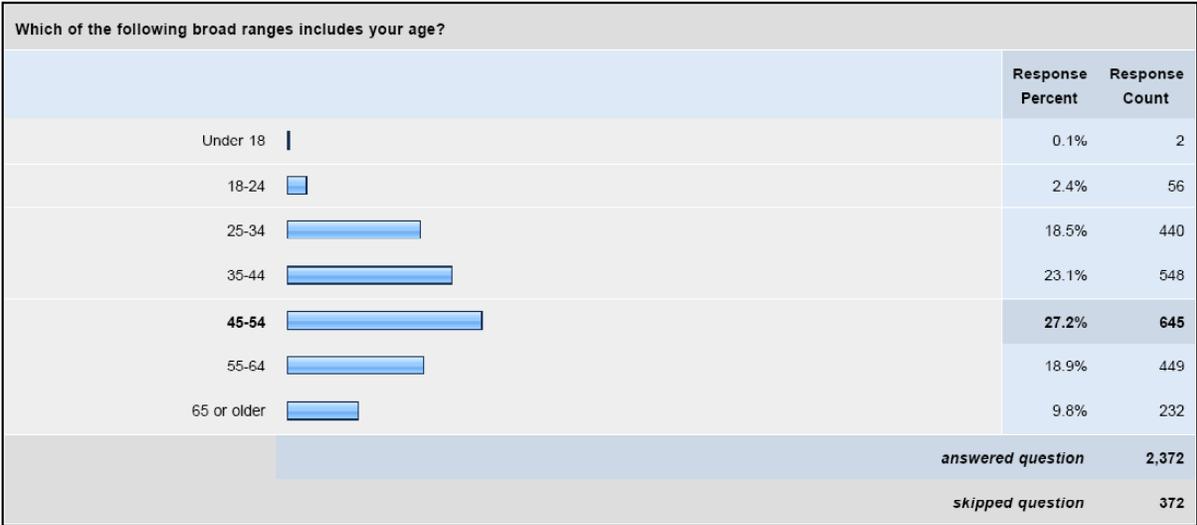
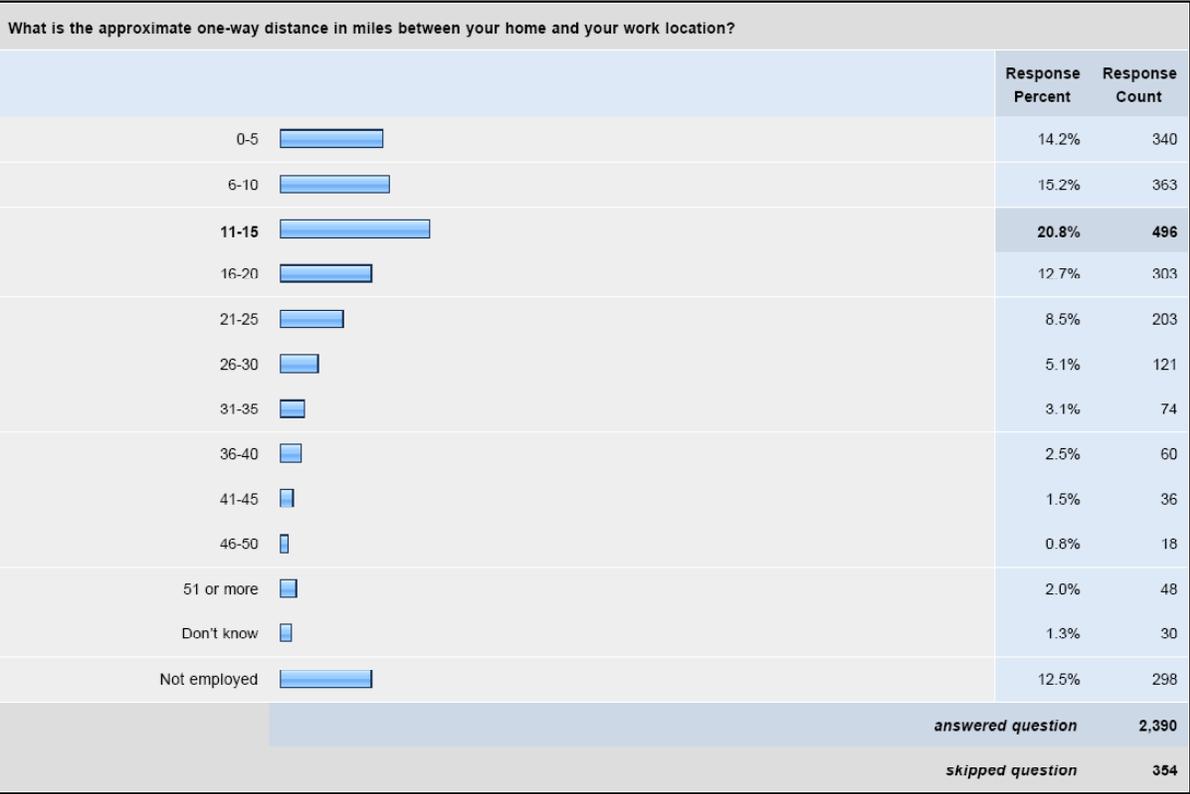
Did you travel on SR 167 on the weekend days in the last 7 days?			Response Percent	Response Count
No			35.7%	376
Yes			64.3%	678
answered question				1,054
skipped question				1,690

In the last 7 days how many days did you use each of the following ways to travel on SR 167?										
	0	1	2	3	4	5	6	7	Rating Average	Response Count
Drove alone	15.4% (134)	29.0% (252)	18.0% (156)	9.4% (82)	5.4% (47)	14.0% (122)	3.7% (32)	5.1% (44)	2.43	869
Carpooled with household members	33.1% (244)	35.4% (261)	19.1% (141)	5.0% (37)	2.8% (21)	1.8% (13)	0.5% (4)	2.3% (17)	1.28	738
Carpooled with non-household members	72.2% (382)	14.4% (76)	7.6% (40)	1.1% (6)	2.1% (11)	2.1% (11)	0.0% (0)	0.6% (3)	0.56	529
Took the bus	95.8% (435)	1.1% (5)	1.1% (5)	0.7% (3)	0.4% (2)	0.9% (4)	0.0% (0)	0.0% (0)	0.11	454
Vanpooled	97.1% (435)	0.4% (2)	0.7% (3)	0.2% (1)	0.9% (4)	0.7% (3)	0.0% (0)	0.0% (0)	0.09	448
Other	92.9% (338)	3.0% (11)	1.1% (4)	1.4% (5)	0.3% (1)	1.1% (4)	0.0% (0)	0.3% (1)	0.18	364
Please specify "other" travel mode										31
answered question										1,053
skipped question										1,691

How many days did you use SR 167 in the last 7 days for each of the trip purposes? Would you say:										
	0	1	2	3	4	5	6	7	Rating Average	Response Count
Travel to or from work	41.6% (294)	7.4% (52)	8.3% (59)	5.0% (35)	5.8% (41)	26.9% (190)	2.3% (16)	2.8% (20)	2.30	707
Travel to or from school	95.0% (439)	1.3% (6)	2.2% (10)	0.6% (3)	0.4% (2)	0.4% (2)	0.0% (0)	0.0% (0)	0.11	462
Errands/shopping	35.7% (229)	31.6% (203)	19.0% (122)	7.9% (51)	2.2% (14)	1.7% (11)	0.8% (5)	1.1% (7)	1.23	642
Non-commute work-related travel	67.4% (368)	12.1% (66)	10.3% (56)	4.0% (22)	1.8% (10)	2.6% (14)	0.2% (1)	1.6% (9)	0.77	546
Recreational activities	42.6% (264)	34.2% (212)	16.3% (101)	3.6% (22)	1.3% (8)	0.5% (3)	0.3% (2)	1.1% (7)	0.95	619
Visit family or friends	47.3% (285)	30.0% (181)	14.9% (90)	3.6% (22)	2.2% (13)	0.5% (3)	0.7% (4)	0.8% (5)	0.92	603
Other	89.2% (339)	4.2% (16)	3.9% (15)	0.5% (2)	1.1% (4)	0.3% (1)	0.0% (0)	0.8% (3)	0.25	380
Please specify "other" trip purpose										39
answered question										1,041
skipped question										1,703

In general, how congested was traffic when you traveled on SR 167 during the last 7 days? Would you say:			Response Percent	Response Count
Not congested at all			18.5%	195
Moderately congested			61.1%	643
Seriously congested			14.7%	155
Very seriously congested			5.6%	59
answered question				1,052
skipped question				1,692

Have you ever used the HOT lanes on SR 167?			Response Percent	Response Count
No			58.5%	617
Yes			41.5%	437
answered question				1,054
skipped question				1,690



Which of the following income categories applies to your household's total annual income (before taxes) for 2008?		
	Response Percent	Response Count
Under \$20,000	1.3%	28
\$20,000 to less than \$30,000	2.6%	57
\$30,000 to less than \$55,000	11.4%	247
\$55,000 to less than \$75,000	14.8%	322
\$75,000 to less than 90,000	14.5%	316
\$90,000 to less than \$125,000	25.9%	563
\$125,000 to less than \$150,000	10.5%	229
\$150,000 or above	19.0%	412
answered question		2,174
skipped question		570

Which of the following best describes your ethnic/racial background?		
	Response Percent	Response Count
White/Caucasian (not Hispanic/Latino background)	83.4%	1,877
White Caucasian (Hispanic/Latino background)	1.8%	41
Black/African American	1.1%	24
Asian/Pacific Islander	6.7%	151
Hispanic/Latino	0.8%	19
Native American	0.4%	10
Multi-racial	2.0%	46
Other	3.6%	82
Please specify "other"		79
answered question		2,250
skipped question		494

What is your gender?		
	Response Percent	Response Count
Male	65.0%	1,505
Female	35.0%	812
answered question		2,317
skipped question		427

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