

ODOT TRIPCHECK.COM II SURVEY

FEBRUARY 2004

SURVEY METHODOLOGY

SURVEY RESULTS



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INTRODUCTION

In April 2003, the Oregon Department of Transportation (ODOT) contracted with the University of Oregon Survey Research Laboratory (OSRL) to program and conduct the web-based data collection effort, the "ODOT TripCheck.com I Survey." The study's goal was to identify and classify a random sample of TripCheck.com's audience, define audience groups, and determine each audience group's behaviors, opinions, and preferences about TripCheck.com's current and potential offerings. Later in 2003, ODOT modified the contract to include an additional round of data collection, TripCheck.com II.

In July 2003 OSRL submitted a report on the initial project, including the results from 340 completed internet surveys. That report summarized the survey design, sampling methodology, and data collection; provided a demographic profile of survey respondents; and summarized the study's main findings.¹ This follow-up report includes many of the findings from that earlier data collection, supplemented by data from the much larger implementation (3,497 completed surveys) in the winter of 2003. This two-phase design strengthens the research in two ways: by employing a larger sample, population estimates can be presented with reduced sampling error; and, comparisons can be made between site usage in the summer and in the winter. Usage patterns differed by season, in some cases dramatically. The findings are presented here side-by-side where appropriate to facilitate the comparison of summer and winter site usage.

SURVEY METHODOLOGY

This section describes OSRL's procedures for developing and implementing the web survey instrument, the sampling to conduct this study, and the actual data collection. Both data collection periods were designed to follow extremely similar or exactly identical processes.

SURVEY INSTRUMENT DEVELOPMENT

The survey's broad goals were to obtain information on visitor's TripCheck.com web site usage behavior, opinions about the site, and preferences about future online development of

¹ See the OSRL report on the ODOT TripCheck.com Survey, June 2003.

TripCheck.com. ODOT and OSRL consulted closely in the iterative process of developing, pretesting, revising, and finalizing survey questions. In the second, larger, data collection period, a subset of the earlier questions was employed. Questions that suggested an overwhelming visitor preference, did not provide sufficient variance across answers, or otherwise were not necessary, were deleted. This resulted in a shorter questionnaire, with a reduced respondent burden. It was hoped that this would lead to higher respondent cooperation rates.

The final survey instrument comprised the following specific subject areas:

1. Respondent evaluation of the **usefulness** of TripCheck.com.
2. How the respondent made **use** of each of the site's functionalities and **ratings** of the ease of use for each.
3. **Evaluation** of TripCheck.com as an information source for public transit.
4. **Opinions** about several possible upgrades and enhancements to TripCheck.com.
5. **Basic demographic data**, including age, geographic location, employment status, use of a vehicle as a regular part of the job, work location, and location from which TripCheck.com is usually accessed.

The survey instrument was extensively pretested using OSRL's standard three-pronged pretest procedure, involving (a) potential members of the survey population, (b) OSRL's Questionnaire Review Committee, comprised of survey experts from our staff and university-wide advisory committee, and (c) potential users of the data, including ODOT personnel. Individual questions were pretested for clarity, accuracy, validity, and variability of response. The entire instrument was pretested for flow, length, comprehensiveness, and factors affecting respondents' cooperation and attention. Based on these pretests, the survey instrument was revised and finalized. For Round II data collection, lessons learned from the earlier implementation were used to further refine and improve the questionnaire.

Both surveys were programmed in OSRL's web-based interviewing system and further pretested. All interviews were completely anonymous. Human subjects approval was originally obtained from the University of Oregon's Committee for the Protection of Human Subjects, and updated for Round II.

SAMPLING

OSRL's professional staff programmed a web sampling design that created a true random sample of TripCheck.com visitors so as to provide statistically valid data. A number of steps were taken to attempt to increase cooperation from the summer implementation: the questionnaire was shortened, respondents were permitted to indicate that they had already filled out the questionnaire (and thus excluded from the response rate calculation rather than assumed to be a refusal), and a mildly assertive attempt was made to convert initial refusals.

TABLE 1: Sample Status			
	Round I Summer	Round II Winter	Difference ²
Visitors	11,768	240,680	↑
Visitors per day	1,471	9,257	↑
Invitations	2,942	30,085	↑
Accepted surveys	460	4,451	↑
Completed surveys	340	3,497	↑
Proportion of acceptees who completed survey	74%	79%	↑
Overall response rate	12%	13%	↔

The data collection period lasted 9 days in Round I and 26 days in Round II. Winter site visitation is almost nine times the daily hits in summer. Of the total of 240,680 winter visits, 30,085 invitations to participate were offered and 4,451 individuals accepted (15%, down 1% from summer but still considerably better than the 6.25% OSRL originally projected based on a review of the web survey literature). Of these, 3,497 completed the survey (78.5%), suggesting that a sizable proportion found the questionnaire burdensome. About 2,580 other invitees reported that they had already completed the survey during a previous visit. Round II efforts resulted in a 1% increase in the response rate, from 12% to 13%. This rate is more than triple what the industry expects in a “popup” style survey associated with a website.³

Another way to look at the findings is to note that in winter, 1% of the sample amounts to about 100 (actually, 93) visitors. Simply multiply percentages in the “winter” column by 100 for a rough estimate of the number of actual visitors the findings relate to when translated to the entire population of TripCheck.com users.

A sample size of 3,497 is associated with a very small sampling error (2%). Sampling errors are calculated to help users of the data assess how much confidence can be placed in a particular result from sample survey estimates in order to generalize back to the population. Sampling error is determined in part by sample size; the larger a sample is, the lower the sampling error. But

² Difference symbols: ↔ means no difference (0 – 3%, within the range of sampling error); ↑↓ means moderate difference (4 – 10%); ↑↑ means large difference (greater than 10%).

³ Email communication from Maureen Michaels, Michaels Opinion Research, Inc., New York, who has done this type of research for years. Ms. Michaels notes that Google’s popup blocker will cause further reductions in response to such surveys.

sampling error is also determined by how much variability a particular variable has; thus, a 50-50 proportional split on a variable will have a higher estimated sampling error than a 95-5 split. For a sample of 3,497 at the 95% confidence level, a variable with a 50-50 proportional split has a confidence interval of 2 percentage points. This means that you can be 95% sure that the true population figure is not outside the range 48% to 52% (i.e., $50\% \pm 2$ percentage points) due to sampling error.

All other splits have narrower confidence intervals, indicating that the survey findings were even more accurate. Other possible sources of survey error are not as straightforward to estimate, such as the bias introduced if those not accepting the invitation to participate are very different from those who do. For the purposes of this analysis we assume there are no such differences that would call into question the findings, and we have no reason to believe there are. Because of the quality assurance controls OSRL implements at every stage of data collection, we can say with complete certainty that the responses reported accurately present the opinions and views of the responding TripCheck.com users as entered into the web questionnaire.

DATA COLLECTION

Data collection for Round II started on November 24 and ended on December 19, when it was determined that the sample size provided for a sampling error small enough to justify ending data collection. The production version of the first TripCheck.com online survey implementation was launched on Tuesday, June 17 and continued for two days, when a programming problem caused a small number of respondents to be unable to input answers to the survey. The program was corrected and the web survey returned to active data collection for the period Tuesday, June 24 through Monday, June 30, for a total of nine days of data collection.

SURVEY RESULTS

This section presents the web survey's main findings about TripCheck.com users, their patterns of usage, their opinions about TripCheck.com, and their preferences for site enhancement. More detailed analysis may be conducted by examining the banner tables in a later section of the project three-ring notebook and the raw Excel data file provided with it. Before presenting the substantive findings, we provide a demographic, social, and economic context for the results of randomly selected web survey respondents.

PROFILE OF RANDOMLY SELECTED WEB SURVEY RESPONDENTS

Respondent Characteristics: The survey included a series of demographic questions, which are useful in interpreting and explaining variation in survey findings from other questions.⁴ Sixty-one percent of the visitors were male and 37% female. Over 41% are college graduates, with another 42% having some college or a specialized training certificate. Only 24% of Oregon residents had a college degree or higher in the 2000 U.S. Census. The site is disproportionately used by the more educated, in part because they have disproportionate access to the internet,

⁴ For an overview of the demographics of visitors to ODOT's web site as a whole, see the OSRL Report on the ODOT Project Communications Survey 2003.

although this is less true in Oregon than in many other states.⁵ Median visitor income was in the \$40,000 to \$69,999 range (with a full 30% of the respondents), suggesting that the site reaches the more affluent in greater proportion than those with lower income. These data suggest that efforts to increase usage among those with less education, lower income, and more difficult access to computers could be a site development priority.

TABLE 2: Employment Status

	Summer	Winter	Difference
Currently working for pay	83%	78%	↓
Drive as regular part of job	39%	44%	↑
Employed by trucking company	4%	8%	↑
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

Seventy-eight percent of Round II respondents are currently working for pay and 20% are unemployed, retired, or out of the labor force, down moderately from Round I. In the period between summer and winter 2003, the number employed in Oregon actually rose,⁶ suggesting that the non-working population makes more use of the site in winter. Of those respondents working for pay, 44% report driving as a regular part of their job duties. The data suggest that individuals who drive as part of their jobs increase usage in the winter, when road conditions could interfere with their job requirements. Site redesign could take this into account by accentuating work-driving data in the winter. Only a handful of respondents, 8%, are employed by a trucking company, although this proportion was up moderately from Round I and reflects over 700 daily visits by truckers when translated to the entire winter TripCheck.com user population. About 55% of all respondents accessed TripCheck.com from either work or from both work and home, while 45% accessed the service mainly from home.

Internet skills: The first survey asked respondents to rate their own skills in accessing the Web. Over 40% labeled their skills “excellent” and over 47% “good.” Clearly, most of the respondents to the survey were confident in their abilities to use web resources. Internet usage patterns did not differentiate a clear demarcation of audience types, but this finding suggests that outreach may be required to reach less experienced internet users. Perhaps a “for dummies” alternative home page could be used to simplify offerings and bring inexperienced users back to the site after a first visit.

⁵ The Pew Internet and American Life project states: “The cause of the regional variations in Internet use in the United States lies in the traditional factors that drive Internet use: education and income levels.... There are some exceptions though. Both the Mountain States and the Pacific Northwest have large user populations even though they have proportionally fewer people with high household incomes and college degrees.” Tom Spooner, *Internet Use by Region in the United States*. August 2003, p. ii.

⁶ Information available from the Oregon Department of Employment OLMIS web site at <http://www.qualityinfo.org/olmisj/CES?areacode=01000000&action=annual&startyear=2003&submit=Continue>.

TABLE 3: Visitor Age				
Age	Birth Years	Summer	Winter	Difference
18 – 24	1979 - 1985	4%	6%	←→
25 – 34	1969 – 1978	10%	15%	↑
35 – 44	1959 – 1968	20%	20%	←→
45 – 54	1949 – 1958	30%	30%	←→
55 – 64	1939 - 1948	27%	20%	↓
65+	Before 1939	8%	9%	←→
←→ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).				

Looking at the sample's age composition by birth cohort, defined by grouped ages, illuminates the findings in terms of shared historical, economic, cultural, and social histories. Eight percent were born prior to or during the Great Depression (before 1939), 20% were born during the World War II era, 30% were born in the post-World War II Baby Boom, and 41% in the late 50s and after. Winter visitors tended to be older than those using the site in summer. This breadth of usage by age is a very positive finding, since the internet is usually thought of as a “young person's” medium. Data from a 2002 national report permits a comparison between the age distribution of TripCheck.com and national users of government web sites:

TABLE 4: TripCheck.com Users Compared with National Government Web Site Users			
Age	TripCheck.com Winter 2003	National Sample ⁷ Winter 2002	Oregon is...
18 – 29	12%	21%	↓
30 – 49	42%	49%	↓
50 – 64	35%	21%	↑
65+	9%	6%	↑
Don't know/refused	3%	3%	←→
←→ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

⁷ Elena Larsen and Lee Painie, *The Rise of the E-citizen: how people use government agencies' web sites*. Pew Internet & American Life Project, April 2002, p. 5.

Most notable is that Oregonians age 50 to 64 form a much more sizable group of users than national government web site visitors. This reflects the fact noted earlier that internet penetration in Oregon exceeds national averages.

USAGE PATTERNS AND EVALUATION OF TRIPCHECK.COM

The web survey's first question asks respondents how often they typically visit ODOT's TripCheck.com.

TABLE 5: Site Visitation Patterns				
User Type	Frequency	Summer	Winter	Difference
Power Users	Five or more times per week	26%	22%	↓
	Three or four times per week	17%	18%	↔
Loyalists	Once or twice per week	16%	19%	↔
	Three or four times per month	12%	14%	↔
Rookies	Less often	31%	27%	↓
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).				

About 22% visit five or more times per week and another 18% visit three or four times per week in winter, and the distribution is almost identical to summer usage. We characterize this audience as the “**power users**” of TripCheck.com. It is remarkable that power users constitute 40% of all users, and suggests TripCheck.com fulfills an important need in their lives.

Another 19% use the site once or twice per week, and an additional 14% report three or four visits per month. These are the site's “**loyalists**,” visiting about once a week. Adding the two audience groups, it is a testimony to the reliability and utility of the site that fully 73% of visitors are regular users of TripCheck.com.⁸

Finally, 27% report once a month (or less) use or answered “other.” While a few of the latter commented “Many times a day,” most reported they were first time users and had not established a pattern. We call these new users “**rookies**.”

⁸ It is also possible that more frequent users were more likely to fill out the questionnaire. In a web survey of this design, it is impossible to measure any non-response bias in the data.

The following table shows selected differences and similarities between the three user groups.

Table 6: Characteristics of User Groups			
	Power Users	Loyalists	Rookies
Visitors are female	No difference		More likely
Visitors have some college	Less likely	In between	More likely
Income \$40,000 or more	Less likely	No difference	
Median age	47	49	47
Called 800 number?	More likely	In between	Less likely
Heard of 511?	No difference		
Visit to plan a trip?	Less likely	In between	More likely
Destination in Oregon?	No difference		More likely
Use Portland congestion map?	No difference		
Use PDA/Cell info?	No difference		
Use commercial services info?	Less likely	More likely	In between
Use tourist information?	Less likely	More likely	In between
Access mainly from home?	Less likely	In between	More likely

Rookies are more likely to be female, with higher education and higher income than power users. They are more likely to be using TripCheck.com from home to plan a trip with a destination in Oregon. **Loyalists** are most likely to use commercial and tourist information. **Power users** are more likely than others to have used the 800 travel information number, but share the same lack of awareness of 511 shown by other users.

Returning to the overall results, over 22% of site visitors access TripCheck.com mainly from work, 45% mainly from home, and 32% regularly from both. As noted in the table, **rookies** are more likely to access TripCheck.com from home, rather than from work or both. Based on their experience with the site, their recurring need for information, and the site's ease of use, they will either become power users or loyalists, or rarely visit the site again. Thus, **rookies** are an important user category for further analysis. For the detailed verbatim answers of all respondents selecting "other" for this question, please refer to *Narrative Answers to Open-Ended Questions* in the project notebook and in the notebook for the Round I study.

In the first data collection period, the next set of three questions investigated seasonal use of TripCheck.com. Over 57% report more need for the service in certain seasons. Of these, 91% identify winter (December, January, and February) as the season of primary use. Fall (42%), spring (35%), and summer (19%) were the seasons identified as the second most often used time of year. **Power users** reported more year-round use while **loyalists** were slightly more likely to visit the site on a seasonal basis. This question was not asked in the second round of data collection.

Answers to the question regarding how respondents first learned about the site can be found in the *Narrative Answers to Open-Ended Questions* in the project notebook. There is a mix between word of mouth and links from other web sites. Some of the comments suggest that users may not realize they are on the ODOT site: “Been with AAA almost 50 years.” More explicit and persistent branding might be useful to secure the credit that is due to ODOT for this service.

The next question in the web survey seeks to identify the TripCheck.com features used most often, and the respondent’s rating of feature quality.

TABLE 7: Rating of TripCheck.com Features				
	Used Regularly			Quality Rating
	Summer	Winter	Difference	(Winter only, highest ratings)
Camera views	87%	87%	↔	77%
Road conditions	67%	76%	↑	70%
Weather reports	53%	61%	↑	69%
Incident reports	43%	34%	↓	64%
Commercial trucking	5%	6%	↔	64%
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).				

Regular usage figures, from highest to lowest proportion of respondents, were camera views (87% used regularly), road conditions and construction information (76%), weather reports (61%), incident reports (34%), and commercial trucking information (6%). The first round of data collection also included usage of information about snow parks/scenic byways/rest areas (11%), bicycle information (2%), public transportation (2%), and rideshare opportunities (1%). Although the order of usage did not change between summer and winter, the proportion using each feature did – with the exception of the clear user favorite, camera views, and a specialty feature, commercial trucking information. In winter, road conditions and weather reports become

much more prominent uses. This suggests that the home page could reflect seasonal priorities in its design, and even change its look to match the season’s requirements.

Of the most regularly used features on the site, the highest rated are camera views at 77% “excellent” or “very good,” road conditions (70%), and weather reports (69%). These are very high approval ratings. In evaluation questions of this sort, any “fair” or “poor” total over 10% is cause for concern, but none of the most used functionalities receive scores even approaching this threshold. As discovered in the first round, TripCheck.com visitors are overwhelmingly satisfied with the site and its key features.

Next, the survey asks three overall evaluative questions. Ideally, ODOT would like most users to find exactly the information they need from the web site.

TABLE 8: Ability to Find Needed Information			
	Summer	Winter	Difference
Always	25%	30%	↑
Usually	65%	64%	↔
Sometimes, rarely, never	2%	4%	↔
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

About 30% of respondents indicate this is the case. Another 64% offer that they “usually” find what they need on the site. Only 4% answer that they “sometimes,” “rarely,” or “never” find the information they need. The effectiveness success holds up, and actually increases, during its prime usage period of winter driving, when the information need grows. Overall, this finding reflects extraordinarily high site effectiveness. Verbatim answers to the follow-up question about what respondents were looking for that they could not find are available for review at ***Narrative Answers to Open-Ended Questions*** in the project notebook as variable FIND2. The narrative comments to subsequent questions, discussed later in this report, identify areas that may also be responsible for the number of respondents answering “usually” to this question, rather than “always.” One suggestion for an updated site is to run an ongoing data collection effort that asks a small sample of users just one question: what information are you visiting this site to find? This would provide ongoing information to capture changes in the public’s needs to help it retain the high user loyalty it now enjoys.

In the first round of data collection, an impressive 72% of respondents stated that the information they found on the site was “very useful,” and another 26% found it “somewhat useful.” Only five respondents out of the 329 answering the question said it was “not very” or “not at all” useful. Based on this finding, TripCheck.com might well be one of the most useful information products of Oregon state government, if not the most useful. In terms of audience type, the **power users** were the most satisfied, trailed only slightly by the **loyalists**. The **rookies** were least likely to

find the site “very useful.” These results are very positive, but suggest that meeting more of new and infrequent user’s needs could be a fruitful area of potential programming activity on TripCheck.com. This question was not asked in the second round of the study.

In Round I, about 65% of respondents reported the information on the site is “very accurate” and another 33% indicated it is “somewhat accurate.” **Power users** and **loyalists** were more likely to rate the information as “very accurate” than **rookies**. It is only in comparison with the high usefulness reported in the previous question that this result suggests a need to prioritize improving the accuracy of the site. Of course, the high level of usefulness makes the accuracy that much more of an issue for users.

Two open-ended questions follow, capturing a wide range of thoughtful and helpful ideas for changes in the site and additions to TripCheck.com. The full text of these responses can be found at ***Narrative Answers to Open-Ended Questions*** in the project notebook as variables CHANGE and FEATUR2. Many of the answers can be summarized as requests for “more of the same:” more cams, quicker maintenance on broken cams, more publicity prior to big traffic weekends, more information on construction and delays, more small area data, more weather reports. The quantity and quality of these answers is remarkable, indicating that users take a great deal of interest in the site. In effect, it is a “membership site” and many users feel that they are stakeholders in it. ODOT may wish to make more of this unusual level of loyalty to TripCheck.com through offering actual site membership, extra benefits or access for power or specialist users, email alerts based on individual information needs or to announce changes in the site, a listserv, and so on.

A few representative verbatim comments are included here to give a flavor of the answers. Also incorporated are comments from the final question, asking respondents if there is anything they wish to add (available in the ***Narrative Answers to Open-Ended Questions*** in the project notebook as variable ENDING):

While I no longer live in Oregon I do frequently visit and I have found the ODOT info very helpful. It's also always nice to be able to see what I'm missing.

The cameras are helpful in seeing what to expect when traveling to the valley. I also like the driving instructions to get to where I need to be.

It's a great service. I'd like to see more cameras on recreation areas. This way I can plan my vacations and playtime better! Thank you...Kim

I would really like to see more information about eastern Oregon in terms of scenic byways, activities, cams, and tourist information.

It has been helpful and easy to use for me. I don't spend a lot of time on the computer and TripCheck is quick and easy to access.

A feature that allows you to see and/or read road conditions for your entire trip would be wonderful, as well as a feature that would suggest an alternate route if needed due to severe weather or construction delays.

During major storm activities, it is almost always difficult to access the site without trying several times. Added site capacity to handle such events would be helpful.

Design it so I can create a page with custom data that I want, and just go to that page rather than through the branching paths.

While completing this survey I happen to have the 10 o'clock news on and sure enough they were discussing 511.

Family traveling for the holiday weekend. I also check the area where I work to be aware or what is going on and the conditions.

A final question in this section asks about usage of the ODOT Road Condition telephone system (800 977-ODOT). About 38% of respondents report using that resource. **Power users** were more likely to have used the resource. A new question asks site visitors if they had heard of the road conditions information available by dialing 511. Only 15% had ever heard of, seen, or tried using 511 for road conditions, and this did not vary by user group. Since TripCheck.com site visitors in general are likely far more knowledgeable about sources of travel information than the non-using public, this suggests a strong need for increased publicity for 511 services.

TRIP PLANNING AND ROAD CONDITION LOOKUP ON TRIPCHECK.COM

The next section of the web survey investigates how users employ the site to plan their trips and check road conditions. The trip planning functionality of TripCheck.com is used more by **rookies** than by **power users**, with **loyalists** in between the two audiences.

TABLE 9: Trip Planning and Road Conditions			
	Summer	Winter	Difference
Visited site today to plan a trip	47%	69%	↑
Recreation or sports related trip	42%	35%	↓
Work trip more than 60 miles	12%	21%	↑
Work trip under 60 miles	20%	5%	↓
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

More than two-thirds of the winter users (69%) report their current use of the site is to plan a trip. Of these, 35% are planning a recreation or sport-related trip, 21% a work-related trip of more than 60 miles, and 5% a work related trip of more than 60 miles. Another 38% answered “other,” and a review of those answers (found in their entirety in *Narrative Answers to Open-Ended Questions* as variable PLAN1TXT) suggests that they could easily be recoded into the categories provided, in roughly the same proportion. The change in usage patterns between the seasons is

notable. Winter usage is much more focused on trip planning for work trips of 60 miles or more. Recreation travel is still the primary trip being planned but local work trip planning falls off dramatically in the winter. Note that because almost 10 times the daily visitors use the site in winter, the actual number of recreational trip planners does not go down, it just does not increase as much as the other uses so its share of the total is less, reflected in the reduced percentage.

The site primarily caters to travelers with a destination in Oregon, although winter brings a substantial increase in users traveling to other states:

TABLE 10: Trip Destination			
	Summer	Winter	Difference
Destination in Oregon	72%	63%	↓
Destination outside Oregon	11%	21%	↑
Both	17%	16%	↔
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

Sixty-three percent of the trip planners report a destination in Oregon and 21% are just travelling through. Another 17% answered “both.” This reflects a dramatic change from the summer pattern. Winter travel patterns are no doubt different, but this may also reflect an increased awareness outside Oregon of the quality of the information available on TripCheck.com. As in Round I, most travel is by personal vehicle, with only 17% in a company vehicle or other mode of transportation. Verbatim answers to the “other” category can be found in *Narrative Answers to Open-Ended Questions* in the project notebook, as variable PLAN3TXT.

In Round I, the site earned high marks in terms of ease of use for planning a trip. Two-thirds of respondents planning a trip reported that using the site was “very easy.” Another 28% rated it “somewhat easy,” and only 5% said “somewhat difficult.” **Power users** and **loyalists** found it easier to use than **rookies**, suggesting that pretesting of revised screens be conducted on naïve users.

TABLE 11: Preferences for Trip Planning Tools			
	Summer	Winter	Difference
Section by section maps	53%	51%	↔
Maps showing major highways	41%	48%	↑
Maps showing fewest delays	55%	38%	↓
Maps showing shortest distance	45%	32%	↔
City to city	36%	32%	↓
Most scenic routes	36%	17%	↓
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

Regarding trip planning tools the respondents prefer, starting with the most favored, the preferences were: section by section maps, the current offering (51%); maps organized by major highways (48%); maps showing routes with the fewest delays (38%); maps organized by shortest distance (32%); structured from city to city (32%); and most scenic routes (17%). Respondents could vote for any or all of these options, and many did vote for all of them, suggesting that a cafeteria approach of functions would meet with user approval. Seasonal differences are striking; winter users are much less interested in a presentation of scenic routes and express a somewhat greater need for a presentation by major highways. Delays and distance are reduced as criteria. This supports the earlier suggestions that a redesign of the site should include season-specific arrays of data elements.

The next set of questions deals with the use of TripCheck.com to investigate road conditions, one of the most important user interests and needs. In winter, an overwhelming 96% visit the site in part to investigate road conditions, compared to only two-thirds of respondents in the summer. Over 91% of them report being able to find the road condition information they needed in previous visits to TripCheck.com, a figure very close to the Round I response, when 99% reported that finding the information was “very easy” or “somewhat easy.”

Eighty-seven percent of respondents who use the site to learn about road conditions say that TripCheck.com is their primary source of this information (up 5% from the summer), and 38% using this service indicate they will change their travel plans based on what they learn at the site. These impressive numbers speak to the crucial importance of the service to its users. However, this can be a two-edged sword. The fact that the site has no effective competition places an extra burden on TripCheck.com to provide comprehensive, accurate, and timely information about rapidly changing road conditions – a significant challenge.

USE OF TRIPCHECK.COM FOR PUBLIC TRANSIT INFORMATION

There appears to be more potential than actual usage of the site for public transit. When asked if they use TripCheck.com to get public transportation information, only 4% answered in the affirmative. This small number means that the subsequent questions – about the type of information searched for, the information's accuracy, and so on – do not have enough respondents to provide useful information. On the other hand, 4% does translate to about 400 daily visitors seeking public transportation information in winter. Public transportation riders make up a user group that is potentially an important target for enhanced outreach efforts.

UPGRADING TRIPCHECK.COM

The survey offered a variety of possible site upgrades for users to evaluate.

TABLE 12: Improvements in TripCheck.com				
	Would Use Feature			Importance
	Summer	Winter	Difference	(Winter only, highest ratings)
Congestion map	68%	59%	↓	21%
Information over cell, PDA	30%	40%	↑	23%
Trucking information	38%	32%	↓	35%
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↗↘ (greater than 10%).				

The first was a Portland congestion map; respondents were asked if they would use such a map. In spite of the limited geographic scope of the upgrade, more than half of respondents say they would use it, and of those, 21% say such maps would be very important to them. This is down from Round I, suggesting that congestion fades a bit as a problem in months of bad weather. About 40% report that they would use information formatted for delivery to cell phones and PDAs from TripCheck.com, and 23% of them say such a service would be very important to them. The jump in usefulness of this feature may reflect the growth in usage of cell phones and PDAs, a trend forecast to continue.

The next questions ask how information should be formatted for cell phones and PDAs. A new option provided in Round II – routes traveled most often – was the clear favorite. By major highways remained a strong favorite but its usefulness was reduced moderately in winter.

TABLE 13: Preference in Presenting Information through Cell Phones and PDAs

	Summer	Winter	Difference
Routes traveled most often	N/A	63%	N/A
Major highways	58%	51%	↓
State section	39%	41%	↔
City by city	43%	36%	↓
Routes with most incidents	N/A	22%	N/A
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

About 32% of respondents indicate they would use information formatted as described on the questionnaire for trucking interests, down from 38% in the summer. Of these, 35% indicate the information would be “very important” and 46% say “somewhat important.” The highest proportion of this subset of respondents would prefer trucker information presented by major highways (60%), followed by routes organized by state section, like the current TripCheck.com (43%), with least road construction (41%), with shortest time (41%), with shortest distance (37%) , and from city to city (33%). The pattern that emerges is that winter drivers are a bit less concerned with issues of time and distance, and more interested in information organized around the basics, like major highways.

**TABLE 14: Preference in Presenting Trucker Information
(Based on the 32% of site visitors who would use trucker information)**

	Summer	Winter	Difference
By major highways	55%	60%	↑
By state section	40%	43%	↔
Routes with least construction	42%	41%	↔
Routes with shortest time	47%	41%	↓
Routes with shortest distance	41%	37%	↓
City by city	36%	33%	↔
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

The next series of questions ask respondents about their likely use of commercial services information on TripCheck.com. Fifty-six percent of respondents say they would use information about restaurants, hotels, gas stations and so on, on the site. This is virtually the same as the summer figure of 59%. Although not a majority, the 42% not favoring this feature suggests ambivalence about including commercial information on the government-sponsored site. Of those likely to use such services, 18% say they judge them “very important” and 62% “somewhat important.” This does not vary by audience type.

TABLE 15: Preference in Presenting Commercial Information

	Summer	Winter	Difference
By exit number	64%	66%	↔
By service type	68%	61%	↓
By major highways	47%	37%	↓
By route	N/A	31%	N/A
By state section	29%	24%	↓
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↗↘ (greater than 10%).			

As to the preferred means of presenting commercial information, 66% favored presentation by exit number, 61% by service type, 37% by major highways, 31% by route, and only 24% by state section like TripCheck.com now. In the first round, 55% preferred the information in printable maps, a question not asked in round two.

Fifty-nine percent of respondents said they would use roadside tourism information if available on TripCheck.com, down from almost two-thirds in the first round. This is “very important” to 11% of users and “somewhat important” to 64%. In terms of how users prefer the information be presented, the range was very limited, from 37% for type of attraction to 30% for presentation by seasonal attraction.

Finally, respondents were asked to indicate which TripCheck.com-like information they would favor in non-interactive displays at rest areas.

TABLE 16: Preferred Features in Rest Area Non-interactive Displays			
	Summer	Winter	Difference
Road conditions and construction information	90%	88%	↔
Weather reports	59%	76%	↑
Cameras	60%	67%	↑
Commercial services	38%	31%	↓
Snow parks/scenic byways/rest areas	26%	27%	↔
↔ (0 – 3%, within the range of sampling error); ↑↓ (4 – 10%); ↑↓ (greater than 10%).			

Eighty-eight percent selected road conditions and construction information, followed by weather reports (76%), cameras (59%), commercial services (38%), and snow parks/scenic byways/rest areas (26%). Winter visitors were considerably more likely to look for weather reports than those checking the site in the summer.

CONCLUSION

TripCheck.com is an extraordinarily popular and effective information utility for Oregon travelers. Users find the site very useful and easy to use, and, as a result, are frequent visitors. Camera views are the most popular feature and visitors want more of them. Because of its unique status as a real-time travel information resource without peer, the site has an extra responsibility to listen to the preferences and meet the information needs of its users. This survey of site visitors finds that it is fulfilling these requirements. Building on and improving the site based on findings from this study and other research efforts can only increase an already enviable public appreciation of the resources available on TripCheck.com.