BICYCLE SAFETY AWARENESS CAMPAIGN

TASK 7

FINAL EVALUATION RESULTS

Final Report

Prepared For:

Bicycle Transportation Alliance
and
State of Oregon Department of Transportation

Prepared By:

Steven Scott
Matei Perussi

MetaResource Group
stscott@MetaResource.com
(503) 516-2785

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Executive Summary

The Bicycle Safety Awareness Campaign is a series of six 30-second television spots intended to educate cyclists and drivers about critical safety issues. These public service announcements (PSAs) were broadcast during 2000 and 2001 on Portland, Oregon television station KGW-TV, Channel 8. This is the final evaluation report documenting the impacts of the campaign.

The team developing and producing the Bicycle Safety Awareness Campaign (also known as *Decide to Ride*) included the Oregon Department of Transportation, Portland television station KGW, Grapheon Design Communications, MetaResource Group, the Bicycle Transportation Alliance, and many volunteers.

The evaluation analysis indicates that the Bicycle Safety Awareness Campaign was successful in that it met most of the initial goals, had a respectable recall rate, garnered some positive changes in attitude and awareness, and had significant attribution of the changes to the campaign.

The evaluation method used for measurement of the impact of the campaign were three telephone surveys of persons in the KGW-TV broadcast area. The baseline survey was completed in July 2000, before any of the campaign PSAs were aired. The midcourse survey of the Bicycle Safety Awareness Campaign was completed in February 2001 after four of the six spots had been broadcast. These two surveys, as described in earlier reports, were compared to evaluate the midcourse effectiveness of the Bicycle Safety Awareness Campaign. A final survey, fielded in August 2001, was compared to the midcourse survey to again measure the overall effectiveness and impact of the campaign. Results are described in this report.

The survey questions attempted to determine the knowledge and attitude of respondents toward the six key topics of the Bicycle Safety Awareness Campaign. These topics are:

- General introduction in support of cycling: (*What If?*).
- Look and see bikes (*Look Right, See Right*).
- Stopping at stop signs and lights (*Close Call*).
- Winter riding and riding in the dark and rain (*See and be Seen*).
- Riding with traffic, not against it (*Wrong Way*).
- How and why to use bike lanes (*Bike Lanes*).

Executive Summary

Summary of Results

The final evaluation has several results. First, progress toward achievement of campaign goals was determined. The number of people reporting that they have seen the PSA campaign was estimated. Any measurable changes in attitudes and awareness of respondents were also determined by comparing the responses of the baseline, midcourse, and final surveys. Finally, any changes in attitudes or awareness to the PSA campaign that respondents attribute to the campaign were determined.

Net recall of the campaign was 7% for the midcourse survey and 13% for the final survey. Positive changes in attitude and awareness were observed regarding driving around bike lanes and riding safely in the dark and rain. A high number of respondents indicated that they had learned something from the campaign. These results are summarized below.

Achievement of Campaign Goals

The original goals of the PSA campaign as prepared for the grant proposal are outlined below.

> 1) There will be an increase of 30 percentage points in the number of motorists and bicyclists in the TV broadcast area that have reasonable knowledge of motorist and bicyclist rights and responsibilities.
>
> 2) 70% of all motorists and bicyclists seeing the campaign will have a positive or very positive response toward bicycle transportation and bicycle riders as legitimate and valued users of the road.
>
> 3) 80% of those bicyclists seeing the campaign will have a positive or very positive response about the rules of the road and understand their responsibility to ride safely.
>
> 4) 60% of those motorists seeing the campaign will have a positive or very positive response to the rights of bicyclists and understand how to drive safely around bicyclists and bicycle lanes.

Interpretation of the survey results suggested that most of the campaign goals were successfully achieved. The first goal to increase knowledge was impossible, given that people's self-reported knowledge level was already fairly high.

1) About 85% of motorists and bicyclists have a positive or very positive response to questions about motorist and bicyclists rights and responsibilities. There has been no detectable increase or decrease in knowledge of motorists or cyclists over the campaign.

2) About 72% of all motorists and bicyclists seeing the campaign have a positive or very positive response toward bicycle transportation. About 89% of all motorists and bicyclists seeing the campaign have a positive or very positive response to understanding the rights and responsibilities of bicycle riders.

3) About 47% of bicyclists seeing the campaign have a positive or very positive response about the rules of the road and 95% say they understand their responsibility to ride safely.

4) About 88% of motorists seeing the campaign have a positive or very positive response to the rights of bicyclists and 91% also believe that they understand how to drive safely around bicycle lanes.

Number of Respondents Seeing PSA Campaign

Net recall of the Bicycle Safety Awareness Campaign at the time of the midcourse survey the was 7%. Considering the population where KGW-TV programming is available, it was estimated that 115,000 drivers and cyclists in Oregon recalled some element of the Bicycle Safety Awareness Campaign. Net recall was determined to be 13% for the final survey. An estimated 208,000 drivers and cyclists in Oregon had a specific recollection of some element of the Bicycle Safety Awareness Campaign.

Not only did respondents say they had seen the PSAs, a number of them also provided clear verbal descriptions of PSA content. This accounted for 16% of the responses in the midcourse survey and 15% for the final survey. Another large group, accounting for 36% of responses for the midcourse survey and 45% for the final survey, recalled some specific elements of the campaign.

Changes in Attitude and Awareness

There are two significant positive results from analysis comparing those that had seen the campaign versus those that had not seen the campaign. These results suggest that the spots covering bike lanes and riding in the dark and rain have been the most effective in changing attitudes. The results are:

1. Drivers who had seen the campaign rated their knowledge of the rules about driving around bike lanes higher than drivers that had not seen the campaign.
2. Drivers who had seen the campaign rated their knowledge of how bicyclists should ride in the dark and rain higher than drivers that had not seen the campaign.

Campaign Attribution of Changes in Attitude and Awareness

Those respondents that had seen the PSA campaign were asked if their opinion on each of the campaign topics had changed or if they had learned something as a result of seeing the campaign. Overall, respondents to the midcourse survey believed that they already knew about 87% of what they need to about various bicycling safety rules and behaviors.

Of those seeing the PSAs, the average number of "Yes, I learned something…" responses was 24% for the midcourse survey and 27% for the final survey; an indication that a significant portion of viewers learned from the campaign. Every "Yes" answer is a positive response in that the campaign has corrected some previously incorrect or incomplete understanding of the rules of the road for safe bicycling and driving.

Conclusions and Recommendations

The six public service announcements did not each receive the same air time exposure, with a maximum of 217 broadcasts for one and a minimum of 56 for another. With this variation, and also with substantial month-to-month variations in the broadcast schedule over the year of the campaign, it could only be expected that recall of specific campaign topics associated with each spot was not uniform.

Even with lack of uniformity in exposure, some conclusions can be drawn from the results about relative effectiveness of the individual spots. Campaign messages with more concrete and explicit messages seem to be recalled more often and spots with voice-over messages also appear to have higher recall. Those that have greater retention appear to be PSA 1 – *"What If?,"* PSA 2 – *Look Right, See Right*, and PSA 6 – *Bike Lanes*. PSA 5 – *Wrong Way* had voice-over added later and may also be considered as one that would have better retention. PSA 3 – *Close Call* might be considered for adding voice-over or some other more explicit content.

Television advertising in general expects viewers to retain memory of specific ads only within a few days of seeing advertising – and this is appropriate for motivating people to buy products. For a public service campaign, a much longer recall is desired so that the campaign messages have a lasting effect. There are indications that viewers have a relatively long memory of specific topics from this campaign. The campaign started with a message about the environmental and health benefits (among others) of bicycling, which respondents recalled even a year after the initial broadcast. Respondents also recalled both advocacy messages and safety messages. The relative rate at which they recalled each type of message appears to be a function of what message was broadcast most recently.

This campaign has had some effect on people's knowledge and attitudes, particularly in regards to bike lanes and riding safely in the dark and rain. The results also suggest that viewers learned the most from the PSA about bike lanes and the general advocacy message.

Specific recommendations for this campaign of six television public service announcements for Bicycle Safety Awareness in Portland would be to continue the campaign with some refinements. As mentioned above, it is recommended that explicit voice-over messages be added to the spots that had implied content (for example, PSA 3 – *Close Call*). The other spots should also be reviewed carefully to make certain that their messages are explicit, and consideration given to making text-over or voice-over changes. Any continued campaign should also make certain reach out to the target demographic, which are educated, employed persons that make regular car and bike trips.

A continued Bicycle Safety Awareness campaign might consider using fewer spots to avoid dilution of the messages, especially if the media budget is limited. The campaign could perhaps concentrate on those spots that have seemed to be the most effective to date. These include PSA 1 – *"What If?,"* PSA 2 – *Look Right, See Right,* and PSA 6 – *Bike Lanes*.

In addition to the specific recommendations noted above, some other general recommendations for future public service television campaigns are outlined below. A number of these were adapted from papers available on the Public Service Advertising Research Center web site[1].

> **Be in it for the long-term.** Most public service campaigns of this sort are intended to change behavior or attitudes. These campaigns are not acted

[1] Public Service Advertising Research Center, http://64.225.58.93/

upon by people in the same way that they react to other television advertising (for those, they buy the products). Because of this, a campaign with a long-term commitment is often required to be effective.

Coordinate with other market actors. Some research suggests that combining enforcement or other incentives along with informational or educational campaigns can be more effective than any one approach alone. The support of a campaign by law enforcement, automobile associations, advocacy groups, or local authorities can provide free media opportunities.

Have a media strategy. Don't just place campaign spots with the times and programs that are affordable or without consideration of who is watching at those times. Instead place spots strategically to reach the target audience.

Determine the best time to air. Seasonal variation in bicycling is well understood, but variations in availability of spot times on television stations also needs to be considered when placing campaign spots. During some times of the year there may be more availability of "free" spot placement. Some campaigns might be able to take advantage of this.

Frequency and budget. Television can be a very effective medium but it is also very expensive. Don't expect that two campaigns with the same budget will have the same results on different media. An underfunded campaign on television may not be as effective as a properly funded campaign on radio or in print.

Have all campaign materials prepared in advance. Although this campaign had the best intentions to prepare spots according to an desirable schedule, the inevitable delays compromised uniform airing of all the messages. Of course, some messages will be seasonal (riding in the dark and rain) and bicycling behaviors typically vary throughout the year so advocacy messages might be focused during spring and early summer.

Evaluate the campaign. Include formal evaluation of the campaign from the beginning. Evaluation results will be appreciated (or even required) by sponsors and funders. Evaluation can point out additional issues that may need to be addressed or messages that for some reason are not effective. And of course, an evaluation will provide evidence that your efforts are making a difference.

Introduction

The Bicycle Safety Awareness Campaign was intended to educate cyclists and motorists in Oregon about critical safety issues. This is the final report documenting the evaluation of the campaign impact.

Summary of the Bicycle Safety Awareness Campaign

The Bicycle Safety Awareness Campaign is a series of six, 30-second, public service announcements (PSAs) that were broadcast on Portland television station KGW-TV, Channel 8 during 12 months in 2000 and 2001. The primary topics for the campaign are:

- General introduction in support of cycling (*What If?)*
- Look and see bikes (*Look Right, See Right*).
- Stopping at stop signs and lights (*Close Call*).
- Winter riding and riding in the dark and rain (*See and be Seen*).
- Riding with traffic, not against it (*Wrong Way*).
- How and why to use bike lanes (*Bike Lanes*).

The team developing and producing the Bicycle Safety Awareness Campaign, also known as *Decide to Ride*, included the Oregon Department of Transportation, KGW-TV, Grapheon Design Communications, MetaResource Group, the Bicycle Transportation Alliance and many volunteers.

The main purpose of this series of six PSAs was to educate cyclists and motorists about critical safety issues, making the roads safer for both types of commuters. Along the way, they also made the case for why these safety concerns should be addressed in the first place: More people should be bicycling for their own health and for the health of their community. In short, getting more cyclists on the roads is good for everyone, including motorists. Each of these PSAs sought to accomplish two things. First, they present bicycling as fun and healthful. Second, they provide important tips on how to bicycle safely. A brief description of each PSA follows.

PSA 1 – *"What If?"*
The first installment of the series asks a simple question: What if you decided to hop on a bike instead of into a car to get to work? It shows that commuting by bike can be quick, healthy, inexpensive, pollution-free, and efficient. Safety is demonstrated through use of hand signals when turning and stopping and by complete stops.

PSA 2 – *Look Right, See Right*
In *"Look Right, See Right,"* the main character is driving his car as if he has the road to himself, which a quick glance in the mirror seems to confirm. But is he really alone? He can't be sure until he double-checks his mirror by looking right and finds a cadre of cyclists not yet visible in his mirrors.

PSA 3 – *Close Call* (stopping at stop signs and lights)
The infamous California stop isn't limited to commuters with four wheels. This PSA explores the importance of stopping at stoplights, but almost more importantly, at stop signs too. Proper signaling is shown along the way.

PSA 4 – *See and be Seen* (winter riding)
Riding in the winter when it's dark and rainy can be safe and fun if done correctly. Raingear for riding in the rain and proper lighting for those dark days is demonstrated. Riding in less than ideal weather is shown to be a reasonable choice.

PSA 5 – *Wrong Way*
Strange as it may seem, many people believe biking against the traffic is safer. This PSA demonstrates that this is not true, especially at intersections where motorists aren't looking for cyclists on the other side of the road.

PSA 6 – *Bike Lanes*
How cyclists should and cars should not use bike lanes is covered in this PSA. It is first a reminder to drivers to stay out of bike lanes, and it also points out to cyclists (and drivers) that the traffic in bike lanes keeps moving even when cars are not.

Campaign Exposure

The campaign broadcast schedule varied as a function of which PSAs were available, which of the spots were seasonally appropriate, and available time on KGW-TV. The spots started on July 10, 2000 and ended on July 4, 2001. The fewest number of spots aired in an entire month was 33 in September 2000; the largest number was 141 for April 2001. In September 2000 a bicycle safety web page featuring the PSA campaign elements was launched on kgw.com. Monthly web page views of the Bicycle Safety page were tracked, as was web view time, in seconds, starting in February 2001. Table 1 shows the overall broadcast schedule and web tracking over the course of the campaign.

Detailed information was not available on the time of day each spot was broadcast (dayparts[2]), what television programs were associated with the PSAs (adjacency[3]), and what special periods were used for airtime (sweeps[4], sports specials). However, it is known that many dayparts for this campaign were during primetime, and that some were on the air during Olympics coverage.

TABLE 1: PSA AIR SCHEDULING BY MONTH

Campaign Month	Total Spots	Web Page Views	Web View Seconds
July 2000	54		
August 2000	65		
September 2000	33	697	
October2000	44	517	
November 2000	66	688	
December 2000	78	261	
January 2001	73	324	
February 2001	62	254	65
March 2001	89	503	73
April 2001	141	555	55
May 2001	76	605	55
June 2001	78	1,146	42
July 2001	35	898	37
TOTAL	894	6,448	

[2] Dayparts – segments of the television broadcast day. These are: Early Morning, Daytime, Early Fringe, Primetime, Late Evening, and Late Night.
[3] Adjacency – A commercial announcement positioned immediately before or after a specific program or programming segment.
[4] Sweep – TV survey periods during which audience viewing habits are measured.

Development of the web site content was pro bono work on the part of one of the team members. The original plan for updating the web site called for highlighting each PSA as it was aired. But this updating occurred only twice. This was in October for PSA 1 – *"What If?"* and in November for PSA 2 – *Look Right, See Right*. The final web content on the BTA web site has detailed information on each of the PSAs.

The PSA spots were prepared as the campaign unfolded with only the *"What If?"* message for the first several months. Subsequent PSAs were put on the air as they were produced. By the time the midcourse survey was fielded, four of the spots had been broadcast. Table 2 describes which of the PSA campaign spots had been aired for each of the three survey waves.

TABLE 2: PSA INCLUDED IN SURVEYS

PSA Broadcast	Baseline Survey	Midcourse Survey	Final Survey
PSA 1 – *"What If?"*		X	X
PSA 2 – *Look Right, See Right*		X	X
PSA 3 – *Close Call*		X	X
PSA 4 – *See and be Seen*		X	X
PSA 5 – *Wrong Way*			X
PSA 6 – *Bike Lanes*			X

Table 3 describes in more detail the actual start date of each of the PSA spots and an estimate of the number of airings for each. There is substantial disparity in how many times each PSA was aired. Equal shares would have had each with approximately 150 broadcasts, or 17%. Because of the airtime scheduling and availability of each of the spots, the percentage of exposure varied from a high of 24% to only 6% for the last two spots.

The dayparts utilized for this campaign were not on the fringes of viewership but often during primetime. Approximately $152,000 of airtime was purchased with many of the paid times during dayparts with higher viewership. KGW-TV provided a 50% match for the value of the paid spots in this campaign and many of the donated times were also during attractive dayparts.

TABLE 3: PSA BROADCAST SCHEDULE

PSA	First Air Date	Number of Airings	% of Airings
PSA 1 – *"What If?"*	07/05/00	217	24%
PSA 2 – *Look Right, See Right*	10/09/00	213	24%
PSA 3 – *Close Call*	12/27/00	144	16%
PSA 4 – *See and be Seen*	02/25/01	207	23%
PSA 5 – *Wrong Way*	05/31/01	57	6%
PSA 6 – *Bike Lanes*	05/31/01	56	6%
Totals		894	100%

TABLE 4: APPROXIMATE PSA BROADCAST AIRINGS BY MONTH

PSA	2000						2001						
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
1	54	65	33	11						35	19		
2				33	66	78	36						
3							37	62	45				
4									44	106	57		
5												39	18
6												39	17
Total	54	65	33	44	66	78	73	62	89	141	76	78	35

Evaluation Summary

The baseline survey was conducted before any of the campaign PSAs were aired in June 2000. The midcourse survey was conducted about seven months later in February 2001 when four of the PSAs had been broadcast. The final survey was fielded in August 2001 after all six PSA had been aired.

Campaign impacts were assessed with three telephone surveys. The telephone surveys polled households in the KGW-TV broadcast area, which includes the majority of the population in Oregon. The sources for household phone numbers included lists of random telephone numbers and lists of those with connections to cycling. For each of the three surveys approximately 5,000 calls were made to complete about 430 surveys over a two-week survey period.

Survey Methodology

Each of the baseline, midcourse, and final surveys were independently drawn random samples of potential viewers of the PSAs, and thus of drivers and cyclists in the broadcast area. The results of the three surveys were compared to look for differences in attitudes and awareness of bicycle and driver safety. The survey approach is described below.

Survey Geographic Area

Several overlapping constraints describe the sample sources used. The Oregon Department of Transportation was interested in assessing the campaign impact for all of Oregon, but the KGW-TV broadcast signal is only available in parts of Oregon. It was hypothesized that larger cities and towns would be most affected by the campaign. Bicycle/car interactions occur and need to be evaluated where there is sufficient cycling activity. Purpose (rather than recreational) cycling occurs primarily in built-up urban areas where travel distances are shorter and travel speeds are lower.

Based on these factors, the major population areas where the KGW-TV signal is available by broadcast or cable were selected. Seven counties, four of which are in the top five for population in Oregon, are included. These counties include major Oregon cities such as Portland, Gresham, Beaverton, Wilsonville, and Salem. Additionally, a sampling of other cities across Oregon where the KGW-TV signal is available were included. Together these account for 62% of the Oregon population. This is most of the KGW-TV area, which is available to about 66% of the state's population. Tables 5 and 6 show the selected counties and cities and the portion of the overall sample population compared to the sampling achieved in each of the three survey waves.

TABLE 5: SAMPLED POPULATIONS BY COUNTY

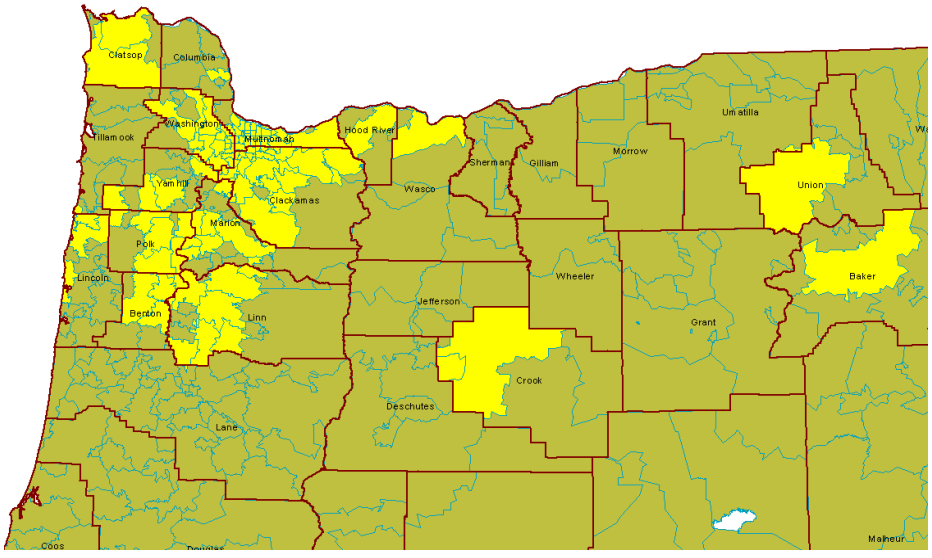
County Rank	County	Actual Population %	Baseline Sample %	Midcourse Sample %	Final Sample %
1	Multnomah	31.7%	36.3%	35.4%	39.3%
2	Washington	19.8%	20.8%	13.6%	20.0%
3	Clackamas	16.0%	16.0%	13.1%	11.4%
5	Marion	13.5%	9.7%	16.2%	11.2%
8	Linn	5.0%	4.7%	5.2%	3.9%
10	Yamhill	4.1%	2.6%	1.9%	2.1%
16	Polk	2.9%	1.9%	2.6%	3.7%

TABLE 6: SAMPLED POPULATIONS BY CITY

City Rank	City	Actual Population %	Baseline Sample %	Midcourse Sample %	Final Sample %
9	Corvallis	2.5%	2.4%	6.6%	3.3%
31	La Grande	0.6%	0.9%	1.4%	0.2%
37	The Dalles	0.6%	0.9%	0.5%	1.2%
41	Newport	0.5%	0.5%	0.0%	0.5%
42	Baker City	0.5%	0.5%	0.9%	0.7%
44	Astoria	0.5%	0.7%	0.7%	0.9%
45	St. Helens	0.5%	0.7%	0.0%	0.0%
51	Prineville	0.4%	0.7%	1.2%	0.5%
53	Lincoln City	0.3%	0.5%	0.0%	0.4%
65	Hood River	0.3%	0.2%	0.2%	0.5%
66	Madras	0.2%	0.0%	0.7%	0.2%

There was a response from each geographic category, except the city of Madras for the baseline survey, from all but Lincoln City and St. Helens for the midcourse survey, and St. Helens was also missing from the final survey. Figure 1 shows a map of the northwest portion of Oregon and the approximate survey coverage with included areas highlighted. Note that the areas in eastern and central Oregon are particularly large because the zip code zones are quite large.

FIGURE 1: ACHIEVED GEOGRAPHIC SAMPLING BY ZIP CODE



Sampling Goals

The general goal for sampling in this survey was for accuracy of ± 6% with 95% certainty. That is, the survey results from a sample of 430 should be within 6% of the actual values for the entire population.

The sampling goal needed to be achieved for two populations – that of drivers and that of cyclists. The hypothesis is that these two groups have distinct characteristics and points of view in terms of their approach to transportation and thus could have different responses to the campaign. Additionally, in order to understand any improvement in the education and behavior of the two groups, the two groups need to be distinctly understood.

In order to segregate the respondents into the two groups, they were asked about their use of a car as well as regular purpose use of cycling. They were also asked about first person knowledge (relative, friend, neighbor) of someone who purpose cycles (defined as bicycling for commuting, shopping, or errands).

The "drivers" group are car drivers with no exposure to, or experience with cycling. The "cyclists" group are people that had some exposure to or experience with cycling. These are the "drivers" and "cyclists" described throughout the survey results. Note that cyclists may not be bicycle commuters or even ride a bike. They may only know a person who regularly uses a bicycle for commuting, shopping, or errands. Similarly, a driver is someone that drives a car and may use transit for commuting – but does not have exposure to cycling.

Survey Sampling Sources

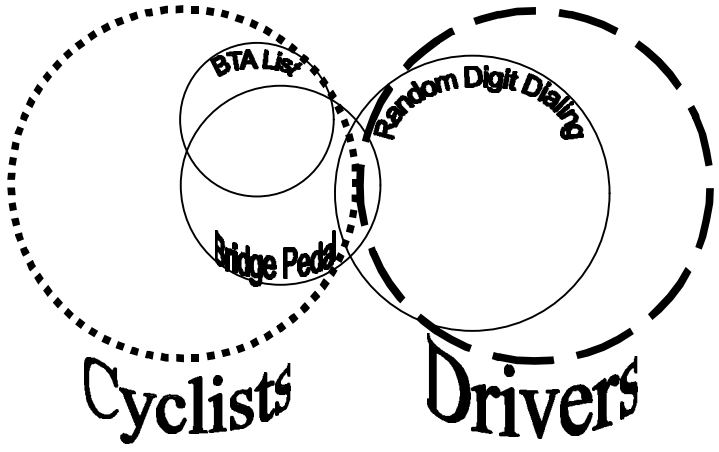
Three sources were used for sampling of the viewing population. Random digit dialing (RDD) was used for the sampling from the general population. Two additional sources were included to provide a sample for the bicycling stratification. Without these two additional lists there would not be enough cyclists surveyed from the general population to achieve sampling goals. The additional sources were the Bicycle Transportation Alliance (BTA) membership list and the participant list from the 1997-2001 Bridge Pedal. Table 7 describes the sources and the segregations for each of the two survey waves.

TABLE 7: SAMPLING SOURCES PLANNED AND ACTUAL

	Random Digit Dialing	BTA Membership	Bridge Pedal
Planned Sampling	45%	10%	45%
Baseline Survey			
Overall Sampling	65%	8%	27%
Drivers	86%	1%	13%
Cyclists	52%	13%	36%
Midcourse Survey			
Overall Sampling	65%	8%	27%
Drivers	87%	0%	13%
Cyclists	47%	14%	39%
Final Survey			
Overall Sampling	66%	7%	27%
Drivers	84%	1%	15%
Cyclists	54%	12%	34%

A Venn diagram can be used to show the sources and sampling in the survey approach. The overlapping of the circles represents what is common between the sets, while not overlapping indicates that there are no common elements. The two large circles of Figure 2 below represent the population of cyclists and drivers as they are defined above. By definition, they have nothing in common, and thus do not overlap in the diagram. The smaller circle on the right is the pool of random digit dialing. Note that it includes mostly drivers, but also some cyclists. The BTA list in the upper left includes almost entirely cyclists, but interestingly, a few drivers came from this sample in the baseline survey (see Table 7). The last circle from the Bridge Pedal list includes some of each group.

FIGURE 2: SAMPLING VENN DIAGRAM



Survey Approach

Each of the six campaign elements is addressed by one or more survey questions. Most of these questions use a five point Likert scale as a variable scale for respondents. Respondents could either use a number value or the verbal description as they preferred. The five points of the Likert scale correspond to:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Four of the questions in the baseline survey were modified for the midcourse survey because it was felt that the wording used in the baseline survey was potentially biasing. The questions with changes were numbers 11, 12, 16, and 19. The wording for the baseline survey for these questions included the phrase "I know the rules about…" which was changed to "Please rate your knowledge of the rules about…"

This wording change necessitated modifications to the previous Likert scale for these questions. The scale used for these four questions became:

1. Completely Unsure
2. Unsure
3. In-between
4. Positive
5. Absolutely Positive

The final survey used the same wording as the midcourse survey. Comparisons between the final and midcourse survey for these questions are more reliable than comparisons between the baseline and midcourse surveys for these questions. The final survey instrument is included in the appendix.

Evaluation Results

The following pages describe the results of the midcourse survey along with those of the final survey. In most cases the results stem from a comparison of the surveys to each other. The impacts in terms of campaign recall and changes in attitude and awareness are described first, and the less significant disposition and demographic findings are presented at the end.

Achievement of Campaign Goals

The original goals of the PSA campaign as prepared for the grant proposal are outlined below. These initial expectations would likely have been drafted differently if research into other PSA campaigns had been available when the proposal was developed.

> 1) There will be an increase of 30 percentage points in the number of motorists and bicyclists in the TV broadcast area that have reasonable knowledge of motorist and bicyclists rights and responsibilities.
>
> 2) 70% of all motorists and bicyclists seeing the campaign will have a positive or very positive response toward bicycle transportation and bicycle riders as legitimate and valued users of the road.
>
> 3) 80% of those bicyclists seeing the campaign will have a positive or very positive response about the rules of the road and understand their responsibility to ride safely.
>
> 4) 60% of those motorists seeing the campaign will have a positive or very positive response to the rights of bicyclists and understand how to drive safely around bicyclists and bicycle lanes.

Interpretation of the survey results suggested that most of the campaign goals were successfully achieved. The first goal, to increase knowledge, was impossible, given that people's self-reported knowledge level was already fairly high.

The original campaign goals were developed before the evaluation scope survey instrument had been designed. In addition, the actual PSA content was only in concept form at the time that the survey instrument was finalized and fielded for the baseline survey. Because of this, not all of the PSA content and thus the goals

could be directly addressed by survey questions. Still, interpretation of the survey results provided a good indication of achievement of campaign goals. These interpretations are listed below along with the number of the survey question that the interpretation was based upon.

1) About 85% of motorists and bicyclists have a positive or very positive response to questions about motorist and bicyclist rights and responsibilities (Q11, 12, 16, 19, 22, 24 and 25). However, there does not appear to be any statistically significant change in the number of motorists or bicyclists in the TV broadcast area that feel that they have reasonable knowledge of motorist and bicyclists rights and responsibilities. That is, there has been no increase or decrease in knowledge of motorists or cyclists over the one year survey cycle.

2) About 72% of all motorists and bicyclists seeing the campaign have a positive or very positive response toward bicycle transportation (Q8). About 89% of all motorists and bicyclists seeing the campaign have a positive or very positive response to understanding the rights and responsibilities of bicycle riders (Q24).

3) About 47% of bicyclists seeing the campaign have a positive or very positive response about the rules of the road (Q26) and 95% say they understand their responsibility to ride safely (Q25).

4) About 88% of motorists seeing the campaign have a positive or very positive response to the rights of bicyclists (Q24) and 91% also believe that they understand how to drive safely around bicycle lanes (Q11).

Number of Respondents Seeing PSA Campaign

In each survey respondents were asked if they recalled seeing a public service campaign about bicycle and car safety on a Portland television station. In the baseline survey 12% of respondents claimed that they had seen the PSA campaign, even though it had not yet aired. The respondents apparently had seen other traffic and bicycle safety messages that they thought fit the description used in the telephone survey.

For the midcourse survey 17% of respondents claimed to have seen the PSA campaign and for the final survey 18% said they had seen it. In both cases we believe that some respondents had seen other messages, not from this campaign. Because respondents were asked to provide some description of the PSA message,

content, or topic, it was possible to provide a net estimate of the portion of respondents that had actually seen and recalled the PSA campaign.

Note that for the midcourse and final surveys the descriptions of the PSA provided by respondents was compared against those PSA that had aired prior to the survey. Table 2 earlier showed the broadcast schedule of the PSA compared to the survey waves. Only if a respondent claiming to have seen the campaign described a topic or element that had already been aired were they counted as part of the sample that had actually seen the PSA. Otherwise, they were not counted. The following lists contain some of the elements that were not a specific part of the PSA campaign that some respondents claimed to have seen. Note that helmets were pictured on every cyclist in the PSA campaign, but were not specifically mentioned. There is apparently a different campaign on bike helmets ongoing in this market which we were not able to identify.

In the baseline survey, where some respondents claimed to have seen the PSA before it had been aired, only 10% recalled any specific content. Those things mentioned by these respondents included:

Baseline Survey non-PSA Mentions

- Bicycles should use bike lanes where provided
- Car drivers should indicate turns for the benefit of peds and cyclists
- Bicycles can be ridden safely on city streets
- Bicycles are legitimate users of the road
- Bicycling is good for the environment

Midcourse Survey non-PSA Mentions

- Use of bike helmets – 16 responses
- Car drivers should indicate turns – 5 responses
- How bikes should ride with traffic – 4 responses
- Use of child carseats – 2 responses
- Alleviation of congestion – 2 responses
- Use of seatbelts – 2 responses

Final Survey non-PSA Mentions

- Use of bike helmets – 14 responses
- Car drivers should indicate turns – 1 response
- Use of child carseats – 1 response
- Alleviation of congestion – 4 responses
- Use of seatbelts – 0 responses

For the midcourse survey those claiming to have seen the PSA campaign but that we determined had seen something else were 10% of the total of 17%. With these non-campaign responses subtracted out, the net viewership was estimated to be 7%. Considering that the viewing area of KGW-TV includes a total population of 2,176,000, and that approximately 76% of that population have a drivers license (one of the screening criteria), it was estimated that 115,000 drivers and cyclists in Oregon had a specific recollection of some element of the PSA campaign at the time of the midcourse survey.

For the final survey those claiming to have seen the PSA campaign but that we determined had seen something else were 5% of the total of 18%. With these non-campaign responses subtracted out, the net viewership was estimated to be 13%. For the final survey it was estimated that 208,000 drivers and cyclists in Oregon have a specific recollection of some element of the PSA campaign.

Of those respondents properly identifying PSA content in the midcourse survey, 57% were in the cyclists group (58% for the final survey) and 43% were drivers (42% for the final survey) which is proportional to the segregations determined for cyclists and drivers.

The number of respondents seeing the PSA was also proportional to the sampling sources. For example, there was not a disproportionate number from the BTA membership list[5]. Table 8 compares these results.

[5] BTA members were alerted to the campaign at meetings and through newsletters and their web site.

TABLE 8: SAMPLING SOURCES SEEING PSA

	Random Digit Dialing	BTA Membership	Bridge Pedal
Midcourse Survey			
Overall	65%	8%	27%
Seeing PSA	69%	12%	19%
Final Survey			
Overall	66%	7%	27%
Seeing PSA	72%	4%	24%

Not only did respondents say they had seen the PSAs, a number of them also provided clear verbal descriptions of PSA content. These comments were recorded verbatim by the telephone interviewer. This accounted for 16% of the responses in the midcourse survey and 15% for the final survey. Another large group, accounting for 36% of responses for the midcourse survey and 45% for the final survey, recalled some specific elements of the campaign. The comments of these respondents were sorted into pre-determined categories by the telephone interviewer. Selected descriptions are provided below.

Midcourse Survey Verbal Descriptions

- *Legitimate means of transportation.*
- *Encourage people to ride bicycles especially in nice weather.*
- *I should use my bike more often; it's environmental.*
- *It made me aware that they wanted more to ride bikes to cut down traffic.*
- *Healthy.*
- *Less stressful alternative to cars.*
- *Saves energy. It's good for exercise.*
- *It's healthier.*
- *Less stress because you won't be stuck in traffic.*
- *Advising car drivers to look to your right.*
- *To be aware of bicyclist around you.*
- *Cars should look right at bike lanes.*
- *I learned that if your driving a car you had better be on the look out for bicycles and pedestrians.*
- *Being careful around cyclists - be aware.*
- *Her friends called her crazy because she is pedaling to work in the rain. She uses her gear. She stays dry. She is the president of the company. Faster than cars because you don't have to wait in traffic.*

- *Bicycles can be ridden in all weather conditions by anybody. Bicycles and motorist can share the road.*
- *Bicyclists should wear bright clothes.*

Midcourse Survey Specific Elements Recalled

- *Bicycles can be an alternative to cars.*
- *Bicycles can be ridden safely on city streets.*
- *Bicycles are vehicles, like cars.*
- *Bicycles are legitimate users of the road.*
- *Bicycling is good for the environment.*
- *How to ride a bicycle safely in the dark and rain.*
- *How cars should stop at stop signs and lights.*
- *How bicycles should stop at stop signs and lights.*

Final Survey Verbal Descriptions Provided

- *Bikes are protecting the environment.*
- *Something about bike lights.*
- *Be careful around bikes if in a car.*
- *Cars don't always see the bikes.*
- *Check your rearview and blindspot.*
- *It was warning to drivers to pay more attention to bicycles because drivers may think they see everything but they can't.*

Additional Final Survey Specific Elements Recalled

- *Cars should not drive in bike lanes.*
- *Bicycles should use bike lanes where provided.*
- *How bikes should ride with traffic like a car.*
- *Most bicyclists follow the rules of the road.*

The PSA campaign provided a positive example of proper behaviors for car/bicycle interactions, and a positive role model for important elements of cycling and driving safety.

Changes in Attitudes and Awareness

A t-test allows two survey results to be compared to see if they are statistically different. Although it is often tempting to simply look at changes in average responses, the t-test gives us assurance that there are real differences between two survey results. The responses to fifteen questions on attitudes and awareness from the midcourse and final surveys were compared using this approach.

Table 9 describes the final survey test results for each of the attitude and awareness questions. It compares all responding drivers from the baseline survey to those drivers *that had seen the campaign*. The second column is that same comparison for cyclists. The symbols used in the table are a '❍' for no statistical difference between the compared populations, a '–' would be used if the statistical difference was negative, and a '+' if the difference was positive.

There are two positive results shown in Table 9. This analysis looks at all responses from the midcourse survey compared to those in the final survey that had seen the campaign. The results are:

1. Drivers who had seen the campaign rated their knowledge of the rules about driving around bike lanes higher than drivers that had not seen the campaign (Q11).
2. Drivers who had seen the campaign rated their knowledge of how bicyclists should ride in the dark and rain higher than drivers that had not seen the campaign (Q19).

Only two "improvements" or positive indications out of 30 possible question may not seem significant, but other analysis performed shows that over the one-year period of the campaign trends in the general population are towards the negative. That is, people's rating of their knowledge of the rule and their belief that drivers and cyclists follow the rules, has gone down over time. There were 14 out of 30 negative indications comparing the baseline to the final survey, and five of 30 negative changes comparing the midcourse to the final survey (the remainder of results were neutral). Some of the baseline to midcourse negative results may be due to changes in wording of survey questions described earlier.

In light of these negative trends in the general population it should be seen as decidedly positive that there are these two positive indications and 28 *otherwise neutral indications* for those seeing the campaign.

TABLE 9: FINAL SURVEY – RESPONSE CHANGES BY SEGREGATION AND OBSERVED CAMPAIGN

Q#	Survey Question	Midcourse All vs. Final, Saw Campaign	
		Drivers	Cyclists
Q8	Bicycles can be an alternative to a car for purpose trips.	❍	❍
Q10	Most drivers understand how to drive around bikes and bike lanes.	❍	❍
Q11	When driving, I know the rules about driving around bike lanes.	+	❍
Q12	When riding a bike, I know how to ride in bike lanes.	N/A	❍
Q14	Most car drivers stop properly at stop signs and traffic lights.	❍	❍
Q15	Most bicyclists stop properly at stop signs and traffic lights.	❍	❍
Q16	I know how cars and bicycles should stop at stop signs and lights.	❍	❍
Q18	Most bicyclists ride safely in the dark and rain.	❍	❍
Q19	I know how bicyclists should ride safely in the dark and rain.	+	❍
Q21	Most bicyclists ride on the right side of the street like a car.	❍	❍
Q22	Bicyclists should ride on the right side of the street like a car.	❍	❍
Q24	When driving, I feel I understand rights and responsibilities of bikes.	❍	❍
Q25	As a bicyclist, I feel I understand my rights and responsibilities.	N/A	❍
Q26	I feel that most cyclists follow the rules of the road.	❍	❍
Q27	I feel that most car drivers follow the rules of the road.	❍	❍

Campaign Attribution of Changes in Attitudes or Awareness

In both the midcourse and final survey respondents that had seen the PSA campaign were asked if their opinion on each of the campaign topics had changed or if they had learned something as a result of the PSAs. A summary of results can be found in Tables 10.0 and 10.1 for the midcourse and final surveys respectively. The elements that had been covered by the PSA campaign at the time of the midcourse survey are highlighted in Table 10.0.

TABLE 10.0: MIDCOURSE SURVEY – ATTRIBUTION OF AWARENESS

PSA	Q#	Survey Question	Yes	No	Don't Know[6]
PSA 1	Q9	Was your opinion on bicycles as an alternative to cars improved after seeing the television campaign?	31%	42%	27%
PSA 6	Q13	Did you learn more about how cars and bikes should behave around bike lanes from the television campaign?	28%	69%	3%
PSA 3	Q17	Did you learn more about how cars and bicycles should stop from the television campaign?	19%	76%	4%
PSA 4	Q20	Did you learn more about how bicyclists should ride safely in the dark and rain from the television campaign?	22%	71%	7%
PSA 5	Q23	Did you learn that bicyclists should ride on the right side of the street from the television campaign?	9%	86%	5%

[6] Includes 'no change' responses.

TABLE 10.1: FINAL SURVEY – ATTRIBUTION OF AWARENESS

PSA	Q#	Survey Question	Yes	No	Don't Know[7]
PSA 1	Q9	Was your opinion on bicycles as an alternative to cars improved after seeing the campaign?	36%	54%	10%
PSA 6	Q13	Did you learn more about how cars and bikes should behave around bike lanes from the campaign?	38%	59%	3%
PSA 3	Q17	Did you learn more about how cars and bicycles should stop from the campaign?	23%	77%	0%
PSA 4	Q20	Did you learn more about how bicyclists should ride safely in the dark and rain from the campaign?	23%	74%	3%
PSA 5	Q23	Did you learn that bicyclists should ride on the right side of the street from the campaign?	13%	86%	1%

It is possible and reasonable to assume that the responses to these questions lean towards negative because the vast majority of people feel that they already know the proper behavior and rules. The results from questions 8, 11, 12, 16, 19, and 22, those that self-rate knowledge of a rule or proper behavior, suggest that this is true. Overall, respondents rated their knowledge at 89% for the variety of bicycling safety rules and behaviors asked about in the midcourse survey and 86% in the final survey. Setting aside the responses from campaign elements that have not yet been aired in the midcourse results, the average "Yes" response is 24%; an overall indicator of the portion of people learning something from the campaign. The average "Yes" response is a bit higher from the final survey at 27%.

[7] Includes 'no change' responses.

Comparisons to Other Public Service Campaigns

Public service campaigns seldom have statistically significant evaluation performed as part of the campaign. This is true no matter what medium is used. However, there are a few other television-based PSA evaluations that can give some insight into the relative effectiveness of the bicycle safety awareness campaign.

Although the scale and media approach for the each of the campaign examples provided below are not identical to the bicycle safety awareness campaign, some impressions can still be drawn regarding its relative success.

In terms of gross exposure, the bicycle safety campaign was broadcast 894 times in Oregon with a total media cost of $304,000. According to KGW-TV, over the year-long course of the bicycle safety public service campaign, 90% of adults 18 years or older saw the PSAs at least six times, and 85% of the adult population from 25-54 years old saw it at least five times. Note that 90% is the highest reach that the KGW-TV rating system recognizes. Average gross ratings points[8] per week were estimated at about 13 and TV gross impressions[9] were estimated to be 2.7 million. There were also 6,448 web page views for the campaign.

A major evaluation effort (costing $1 million and taking two years) was conducted for the nationwide public service campaign on early detection of colon cancer. The media spending for the campaign came to $21.3 million and achieved an average of 53 targeted gross ratings points a week. There was one 30-second spot used throughout the yearlong campaign. This campaign achieved an increase of 29% in 'proven/related awareness'.

The regional "Better Bricks" campaign to increase the demand for energy efficient commercial buildings included a web site, television advertising, and print advertising. The northwest regional coverage for the campaign included Oregon, Washington, Idaho, and Montana. The television campaign had three 30-second spots that were broadcast 5,063 times over the campaign period of May 2000 to March 2001. The first-year evaluation results found a 4% awareness of the *betterbricks.com* brand. The total of unique web hits was 15,905 and TV gross impressions were 80 million.

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[8] Gross Ratings Points – the accumulated percentage points of viewership for an advertising schedule.

[9] Gross Impressions – the total number of households or people delivered by a particular media schedule.

The National Anti-Drug Media Campaign was studied for awareness in twelve targeted cities as compared to twelve other cities throughout the U.S. The media mix included TV and outdoor advertising and there were fifteen different 30-second spots used, although not all spots were used at all sites. Over an eight month period the spots were broadcast over 37,000 times to the two dozen sites, with 9,075 more airings in the targeted cities over what was shown in the comparison cities. The spots were developed and aired to youth and teens, and in that demographic achieved a 16% increase in awareness of the campaign resulting from the additional airings in the target cities. For all ages the campaign achieved an overall 12% increase in awareness.

Resource Conservation of Seattle Public Utilities has a "Natural Lawn Program" that has been promoted since 1997 and is evaluated on an ongoing basis. The campaign uses multiple media approaches that include TV, radio, print ad, bill stuffers, and it also has received extensive free media exposure. Their television spot consisted of one 30-second creative execution and was broadcast mostly on cable with a budget of $141,000 (estimated for 1997). In the first year they achieved a 35% recall rate for the campaign from all media exposure.

In two other studies of television advertising, average unaided recall was determined to be 38.4%[10] and 14.9%[11] when measured within about one day of exposure to the ad.

Table 11 below summarizes the examples related above. All of these examples suggest that the achievements of the bicycle safety awareness campaign were significant. This is especially true if one considers that many of the respondents to the bicycle safety awareness campaign are recalling topics that were broadcast many months earlier.

[10] Radio [compared to TV] Advertising Recall Study by the Canadian Radio Marketing Bureau, April 1997, http://www.rab.co.uk/html/pages/Res_RecallStudy.htm (time lag of 11 to 26 hours, sample size of about 600).

[11] Advertising Recall Study by the Cabletelevision Advertising Bureau, April 2000, http://www.cabletvadbureau.com/00News/080200news.htm (time lag of one hour or less, sample size of about 17,200).

TABLE 11: COMPARISON OF PSA CAMPAIGN ACHIEVEMENTS

Public Service Campaign, Area and Period	Media Used	TV Spots	TV Media Cost	Airings	Recall
Bicycle Safety Awareness Oregon 12 months	TV, web	6x30-sec.	$304K	894	13%
Colon Cancer Awareness National 12 months	TV	1x30-sec.	$2,130K		29% net increase
Building Efficiency Northwest 5 months (TV)	TV, web, print	3x30-sec.		5,063	4%
Anti-Drug Campaign National (12 target sites) 8 months	TV, outdoor	15x30-sec.		9,075 additional to targets	12% net increase
Natural Lawn Program Seattle 1 year, 1997 (ongoing)	TV, radio, print, bills, free media	1x30-sec.	$141K (estimated for TV)		35%

Survey Screening and Call Disposition

In both the baseline and midcourse survey, respondents were screened to be licensed automobile drivers over 19 years of age. The survey gathered information from those presumed likely to have completed high school and have the ability to drive or some experience driving. The survey also screened for those who make regular purpose travel by auto, bike, or transit. Those that do not make regular purpose trips were presumed to be unable to provide useful information on bicycle/car interactions. An average of 2.8% of potential respondents were screened out.

The surveys did not screen for employment by broadcast organization, marketing research firm, or transit/transportation entity that is sometimes done for surveys performed for marketing purposes. Even people commonly screened out of surveys are participants in the overall transportation interaction picture of the region. No bias is expected from non-exclusion.

Overall, it was initially expected that about 13 calls would be attempted for every completed survey. The actual result was slightly better for the baseline survey, with 12.6 calls made for every completed survey, and excellent in the midcourse and final surveys with 9.5 and 9.8 calls respectively per completed survey. Disposition results for all three surveys are shown in Table 12.

TABLE 12: CALL DISPOSITION

Disposition	Baseline %	Midcourse %	Final %
No Answer	26.3%	28.9%	19.7%
Busy	3.9%	4.5%	0.8%
Answering Machine	23.6%	16.0%	20.2%
Respondent Not Available	6.7%	11.7%	9.7%
Technical Difficulties	1.8%	1.4%	1.5%
Disconnect	8.6%	9.2%	12.6%
Business Number	3.2%	2.7%	4.4%
Language Barrier	0.8%	1.0%	0.7%
Refused	10.3%	8.3%	11.1%
Scheduled Callback	2.7%	0.0%	0.1%
Wrong Number	0.8%	2.0%	0.3%
Fax Number	1.8%	1.6%	2.8%
Partial Survey	0.4%	0.6%	0.4%
Screener Termination	1.2%	1.6%	5.5%
Complete	7.9%	10.5%	10.2%
Total Calls Attempted	5,487	4,140	4,251
Total Surveys Completed	434	434	434

Demographic Results

The survey results have been segregated into two groups, cyclists and drivers, in order to draw conclusions about how they might differently see and respond to the campaign. Recall that cyclists are those who know other cyclists, who cycle themselves, or who say that bicycling is their primary commute mode and drivers are those that do not know a cyclist and don't bicycle.

Table 13 describes the overall segregation of the sample for each of the surveys.

TABLE 13: OVERALL SAMPLING SEGREGATIONS ACHIEVED

	Drivers	Cyclists
Baseline Sample Achieved	176 (41%)	255 (59%)
Midcourse Sample Achieved	199 (46%)	232 (54%)
Final Sample Achieved	171 (39%)	264 (61%)

In terms of overall transportation behaviors the two groups show expected differences. It would normally be expected that cyclists would on average make fewer car trips per week that drivers, this is not true for the midcourse survey as it was conducted in the middle of winter. Interestingly, there are not striking differences in primary commute mode between the groups. In terms of some demographics, they have interesting disparities in terms of education, gender, and number of bicycles per household. Tables 14 through 17 describe averages from the survey results and Figures 3, 4, and 5 show the primary commute mode by segregation.

In Table 15 education levels from the 1990 Census were provided for interest only. Because the survey respondents are screened, they can't be compared directly to the general population of the Census results.

TABLE 14: AVERAGE RESPONDENT TRAVEL BEHAVIOR BY SEGREGATION

	Car Trips per Week	Transit Trips per Week	Bicycle Trips per Month
Baseline Survey			
Drivers	8.7	6.1	0
Cyclists	8.8	4.3	11.6
Midcourse Survey			
Drivers	9.0	4.9	0
Cyclists	10.0	2.7	10.7
Final Survey			
Drivers	9.4	4.0	0
Cyclists	9.0	4.0	11.4

TABLE 15: RESPONDENT DEMOGRAPHICS BY SEGREGATION

	Ed. to High School	Some College	College Grad	Percent Male	Percent Female
Baseline Survey					
Drivers	22%	40%	38%	38%	62%
Cyclists	13%	29%	59%	50%	50%
Midcourse Survey					
Drivers	30%	33%	37%	41%	59%
Cyclists	10%	24%	66%	47%	53%
Final Survey					
Drivers	27%	25%	48%	39%	61%
Cyclists	16%	20%	64%	46%	54%

TABLE 16: EDUCATIONAL DEMOGRAPHICS BY SURVEY WAVE

	Baseline	Midcourse	Final	1990 Census
No High school diploma	2%	2%	3%	15%
High school or GED	14%	17%	17%	19%
Some college, no degree	33%	28%	22%	32%
Four-year degree or more	51%	53%	58%	34%

TABLE 17: HOUSEHOLD DEMOGRAPHICS BY SEGREGATION

	People in household	Cars in household	Bikes in household
Baseline Survey			
Drivers	2.6	2.2	1.6
Cyclists	2.7	2.0	2.5
Midcourse Survey			
Drivers	2.8	2.1	1.8
Cyclists	2.7	2.2	2.8
Final Survey			
Drivers	2.6	2.2	2.0
Cyclists	2.7	2.0	2.6

FIGURE 3: PRIMARY COMMUTE MODE BY SEGREGATION, BASELINE – JUNE 2000

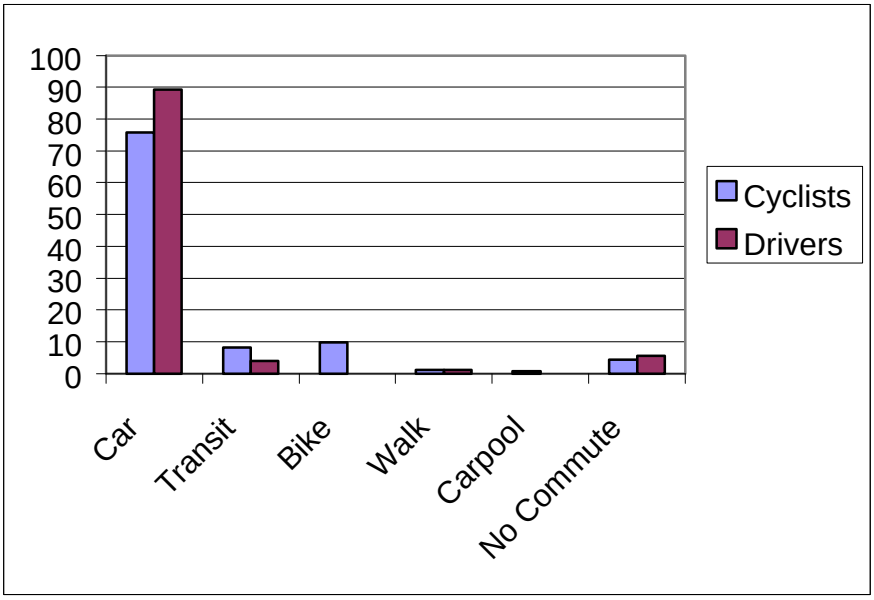


FIGURE 4: PRIMARY COMMUTE MODE BY SEGREGATION, MIDCOURSE – FEBRUARY 2001

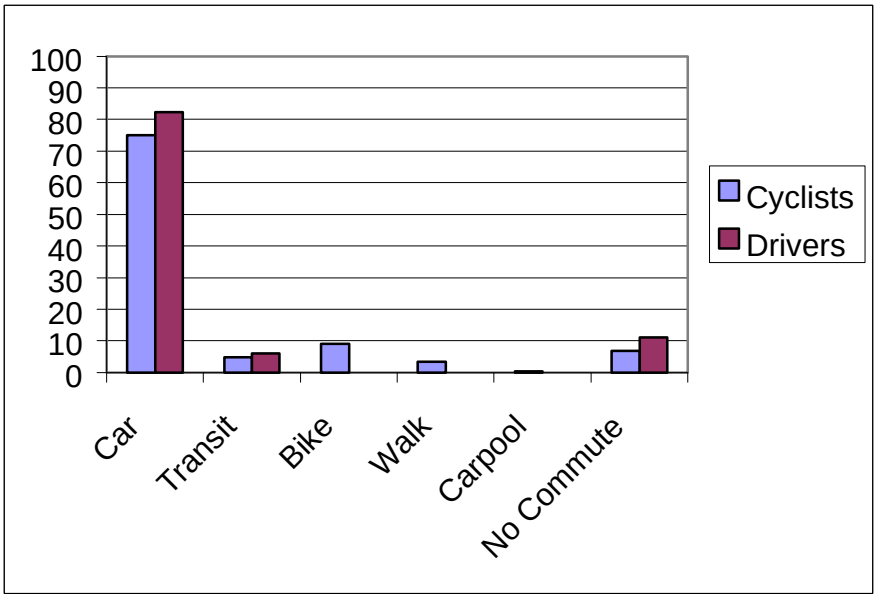
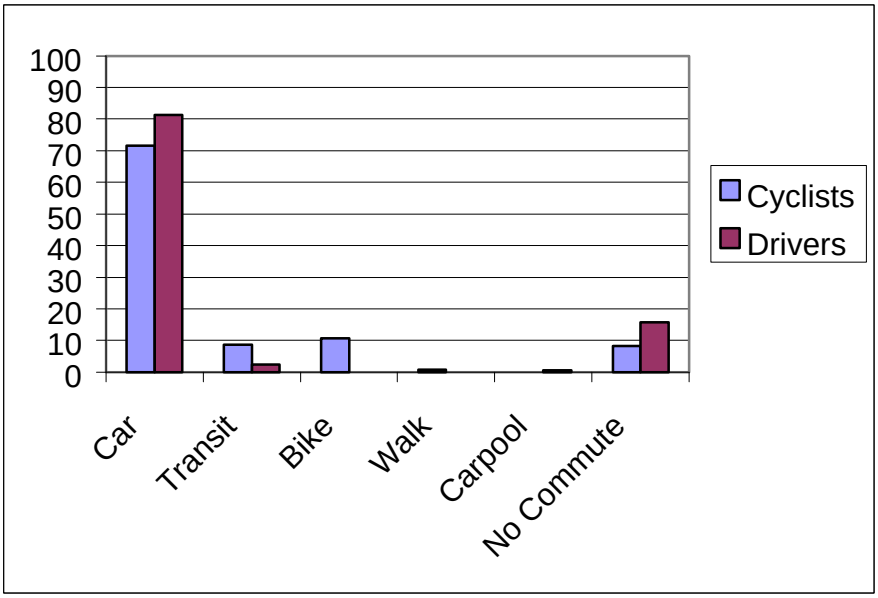


FIGURE 5: PRIMARY COMMUTE MODE BY SEGREGATION, FINAL – AUGUST 2001



Appendix

BICYCLE & CAR SAFETY TELEVISION PSA SURVEY

(Final Survey Version)

INTRODUCTION

Hello, my name is _____. I'm calling from Market Decisions, a Portland research firm. We are not selling anything. **(IF FROM SECONDARY DATABASES)** May I please speak with (insert contact name from database)?

REPEAT INTRODUCTION AS NECESSARY, AND CONTINUE. IF AVAILABLE CONTINUE SURVEY. IF CONTACT IS UNAVAILABLE, ASK FOR ANY OTHER ADULT TO SCREEN.

We are surveying people in Oregon to obtain opinions about public service announcements regarding bicycles and automobiles. This short survey takes about ten minutes. Is this an OK time? First I'd like to ask…

SCREENING QUESTIONS

S1. Are you 19 years of age or older?

1 Yes
2 No → **We are only talking to adults over 19 years of age. Thank you for your time. Is there anyone else available that is 19 or over? THANK AND TERMINATE IF NO**

S2. Have you ever had a driver's license?

1 Yes
2 No → **We are only talking to those that have had drivers licenses. Thank you for your time. Is there anyone else available? THANK AND TERMINATE IF NO**

S3. How many times a week do you make a trip by car, public transit, or bicycle for commuting, shopping, or errands? **(IF NEEDED: "IN AN AVERAGE WEEK, YEAR ROUND." EACH ROUND-TRIP WOULD COUNT AS ONE TRIP.)**

_____ Record Number of Trips
997 DK

→ IF S3 < 4, WE ARE ONLY TALKING TO THOSE WHO MAKE MORE TRIPS EVERY WEEK. THANK YOU FOR YOUR TIME. IS THERE ANYONE ELSE AVAILABLE? THANK AND TERMINATE.

SURVEY BODY

Q1 How many of the **[INSERT S3]** trips you make each week for commuting, shopping, or errands are made by car? **(IF NEEDED "IN AN AVERAGE WEEK, YEAR ROUND")**

_____ Record Number of Trips
997 DK

[IF Q1 = S3 SKIP TO Q3]

Q2 And how many of those **[INSERT S3]** trips are on public transit? **(IF NEEDED "IN AN AVERAGE WEEK, YEAR ROUND")**

_____ Record Number of Trips
997 DK

Q3 Now thinking about an entire month, about how many trips by bicycle might you make *in a month* for commuting, shopping, or errands?

_____ Record Number of Trips
997 DK

Q4. What transportation do you use most of the time for commuting to work or school? **(Single Mention)**

1 Car
2 Public Transit (Bus/Max)
3 Bicycle
4 Walk
5 Carpool
6 Don't commute
7 Don't know

Q5. Beside yourself, do you know of a neighbor, friend, or relative that uses a bicycle once a month or more for commuting, shopping, or errands?

1 Yes
2 No

(Q6 INTERVIEWER NOTE – FOR FIRST SURVEY WAVE NOTE THAT THE TELEVISION CAMPAIGN HAS NOT AIRED YET)

Q6 Do you recall seeing a recent public service campaign about bicycle and car safety on a Portland television station? **(CONFIRM YES RESPONSES, CODE UNSURE RESPONSES AS NO)**

1 Yes
2 No → **Go to Q8**
3 No, Don't watch television → **Go to Q8**

Q7. What did you learn from these public service announcements? **(DO NOT READ LIST. ACCEPT ALL MENTIONS. PROBE WITH "CAN YOU RECALL ANYTHING YOU LEARNED? END WITH 'WAS THERE ANYTHING ELSE YOU LEARNED?')**

11 Cars should not drive in bike lanes
12 Bicycles should use bike lanes where provided
13 Bicyclists should indicate turns
14 Car drivers should indicate turns for the benefit of pedestrians and bicycles
15 Bicycles can be an alternative to cars for commuting, shopping and errands
16 Bicycles can be ridden safely on city streets

17 Bicycles are vehicles, like cars
18 Bicycles are legitimate users of the road
19 Bicycling is good for the environment
20 How to ride a bicycle safely in the dark and rain
21 How cars should stop at stop signs and lights
22 How bicycles should stop at stop signs and lights
23 How bikes should ride with traffic like a car
24 Most bicyclists follow the rules of the road
99 Other _____
97 Can't recall, Don't know

INTRODUCTION FOR LIKERT RESPONSES

Next, I'm going to read you a mixture of statements and questions. I'll ask you to rate the statements on a scale of 1 to 5, where 1 means strongly disagree and 5 means strongly agree, and 3 is neutral, meaning you neither agree nor disagree. For the questions, you'll simply answer yes or no.

Interviewer Note: If respondent uses number to answer question instead of words, please verify the word correlating to the number they selected for the first couple of responses to be sure they understand the scale properly.

Q8. Using this 1 to 5 scale, please rate your agreement with the statement: Bicycles can be a reasonable alternative to a car for commuting, shopping, or errands.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

[ASK Q9 IF Q6 = YES, RECALL PSA, AND Q8 ≥ 3]
Q9 Was your opinion on bicycles as an alternative to cars improved after seeing the recent television campaign, yes or no?

1 Yes, improved
2 No, not improved
3 No change
7 Don't know

Using the same 1 to 5 scale, please rate your agreement with the following statements:

Q10 Most car drivers understand how to drive safely around bikes and bike lanes. **(IF NEEDED MOST IS AT LEAST 90%, OR NINE OUT OF TEN)**

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

[ASK Q11 IF Q1, USE CAR > 0]
Q11 When driving a car, please rate your knowledge of the rules about driving where there are bike lanes. Use 1 for completely unsure and 5 for absolutely positive that you know the rules.

1 Completely Unsure
2 Unsure
3 In-between
4 Positive
5 Absolutely Positive
7 Don't Know

[ASK Q12 IF Q3, USE BIKE > 0]
Q12 When riding a bike, please rate your knowledge of the rules about riding in bike lanes. Use 1 for completely unsure and 5 for absolutely positive that you know the rules.

1 Completely Unsure

2 Unsure
3 In-between
4 Positive
5 Absolutely Positive
7 Don't Know

[ASK Q13 IF Q6 = YES, RECALL PSA, AND Q11 ≥ 4 OR Q12 ≥ 4]

Q13. Did you learn more about how cars and bikes should behave around bike lanes from the television campaign, yes, or no?

1 Yes
2 No, already knew
3 Don't know

Next, using the same 1 to 5 scale, please rate your agreement with the following statements:

Q14. Most car drivers stop properly at stop signs and traffic lights. **(IF NEEDED MOST IS AT LEAST 90%, OR NINE OUT OF TEN)**

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q15. Most bicyclists stop properly at stop signs and traffic lights. **(IF NEEDED MOST IS AT LEAST 90%, OR NINE OUT OF TEN)**

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q16. Please rate your knowledge of the rules about how cars and bicycles should stop at stop signs and traffic lights. Use 1 for completely unsure and 5 for absolutely positive that you know the rules.

1 Completely Unsure
2 Unsure
3 In-between
4 Positive
5 Absolutely Positive
7 Don't Know

[ASK Q17 IF Q6 = YES, RECALL PSA AND Q16 ≥ 4]

Q17. Did you learn more about how cars and bicycles should stop properly at signs and lights from the television campaign, yes or no?

1 Yes
2 No, already knew
3 Don't know

Going back to the 1 to 5 scale, please rate your agreement with the following two statements:

Q18. Most bicyclists ride safely in the dark and rain. **(IF NEEDED MOST IS AT LEAST 90%, OR NINE OUT OF TEN)**

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q19. Please rate your knowledge of the rules about how bicyclists should ride safely in the dark and rain. Use 1 for completely unsure and 5 for absolutely positive that you know the rules.

1 Completely Unsure
2 Unsure
3 In-between
4 Positive
5 Absolutely Positive

7 Don't Know

[ASK IF Q6 = YES, RECALL PSA, AND Q19 ≥ 4]

Q20. Did you learn more about how bicyclists should ride safely in the dark and rain from the television campaign, yes, or no?

1 Yes
2 No, already knew
3 Don't know

Again, Using the same 1 to 5 scale, please rate your agreement with the following two statements:

Q21. Most bicyclists ride correctly on the right side of the street like a car. **(IF NEEDED MOST IS AT LEAST 90%, OR NINE OUT OF TEN)**

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q22. Bicyclists should ride on the right side of the street like a car.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

[ASK IF Q6 = YES, RECALL PSA AND Q22 ≥ 4]

Q23. Did you learn that bicyclists should ride on the right side of the street from the television campaign, yes, or no?

1 Yes
2 No, already knew
3 Don't know

And finally, Using the 1 to 5 scale once again, please rate your agreement with the following:

[ASK IF Q1, USE CAR > 0]

Q24. When I drive a car, I feel that I understand the rights and responsibilities of bicycles on the road.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

[ASK IF Q3, USE BIKE > 0]

Q25. As a bicyclist, I feel that I understand my rights and responsibilities when I cycle.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q26 I feel that most bicyclists follow the rules of the road.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

Q27 I feel that most car drivers follow the rules of the road.

1 Strongly Disagree
2 Disagree
3 Neutral
4 Agree
5 Strongly Agree
7 Don't Know

SURVEY DEMOGRAPHICS

I now have a few final questions about you and your household to help us understand the results of our research…

D1. How many people live in your household?

_____ **Record Number of People**
97 DK

D2. How many cars does your household own?

_____ **Record Number of Cars**
97 DK

D3. How many bicycles does your household own?

_____ **Record Number of Bikes**
97 DK

D4. What is the highest level of schooling that you've completed? (READ LIST)

1 Grade school
2 Some high school
3 High school grad
4 Some college
5 College graduate or higher
7 DK / NA
8 Refused

D5. What is your zip code? **(IF DON'T KNOW, RECORD PHONE NUMBER FOR CODING)**

_____ **Record Zip Code**
99997 DK

D5A. Record or verify first name

Record _____

D5B. Verify Phone Number

Record _____

D6. RECORD GENDER **(DO NOT ASK)**

1 Male
2 Female

Thank you for your time.