Appendix A

Eastside Hub Target Area Program Measurement Tools and Results Report

December 2005
Portland Office of Transportation
Bureau of Transportation System Management
Transportation Options

Eastside Hub Target Area Program
Measurement Tools and Results Report

Options deployed a variety of tools to measure impacts on travel behavior, attitudes, and awareness changes stemming from the work in the Eastside Hub Target Area. This report describes of each type of data collection and survey results and a discussion of the findings.

PRE AND POST TELEPHONE SURVEY WITH TRIP DIARY

Options hired Davis, Hibbits, & Midghall Inc (DHM) to conduct a random telephone survey before and after the Eastside Hub program. The pre survey was administered to 300 residents age 18 and older from February 24 to March 16, 2005. The follow-up survey was conducted from October 8 to19, 2005, again to 300 residents.

One half of the interviews (n=150) for each survey was completed in two areas of southeast Portland that were in the Eastside Hub and received mailings and information from Options. This group is referred to as the "test" group. The other half of the interviews (n=150) was administered to areas adjacent to these test areas but outside of the program area. This group is referred to as the "control" group.

A key component of the DHM telephone survey was a one-day trip diary for all participants. The trip diary allows Options to measure impacts on mode share throughout the target area for all trips, as well as for specific trip purposes. Both surveys included attitudinal questions, the follow up survey included questions about specific programs and general awareness of the project.

EASTSIDE HUB TARGET AREA PROGRAM EVALUATION

Following the completion of the project in October, written program evaluations were mailed to all households where Options captured names and addresses for participants in Eastside Hub programs (5200). Residents had the choice of filling out the survey and mailing it back, or going to www.PortlandOnline.com to fill it out electronically. Residents who participated in specific programs such as guided walks and rides or Smart Living Classes received an additional program evaluation.

After 4 weeks, 1004 surveys were returned, a response rate of just under 20%. The program evaluation provided anecdotal feedback on projects and materials as well as hundreds of comments and suggestions related the Eastside Hub project. The evaluation also provided insight into behavior changes and general awareness levels about the program.

COUNTS

To augment the data collected through the telephone surveys and program evaluations, Options performed manual counts of bike and pedestrian activity in the Eastside Hub. Using cameras mounted on telephone poles, PDOT's data collection team taped activity at ten key intersections in the target area for a 24-hour periods. Counts of both bikes

and pedestrians were taken at AM (7-9), noon (11-1) and PM (4-6pm) peaks in both March and September.

Similarly, Options will use TriMet boardings to verify changes in travel behavior related to transit use. TriMet's fall counts will be available in early 2006.

Impact on all Modes of Transportation

DRIVE ALONE

The DHM survey revealed an **8.6 % decrease in drive alone trips** in the test area when compared to the control area (CHART1). Interestingly, drive alone trips increased in the control group while decreasing in the test area over the same time period.

CHART 1

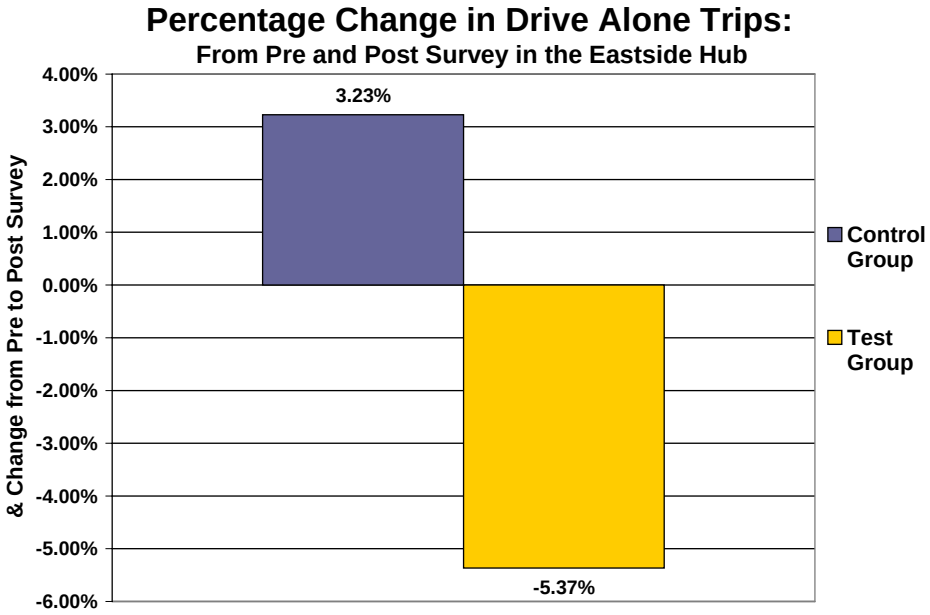
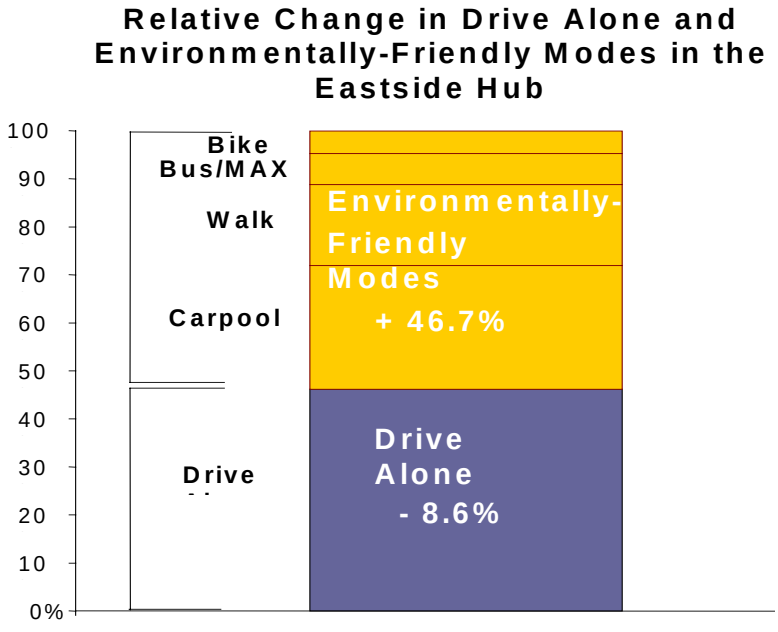


CHART 2

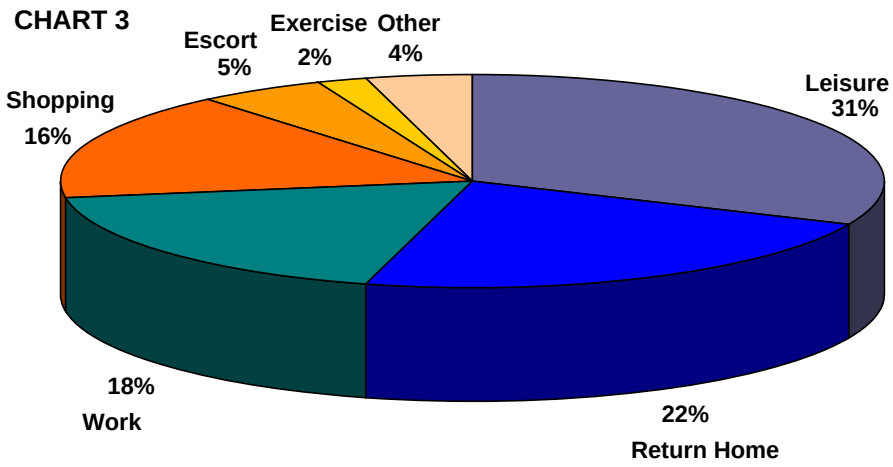


The 8.6% reduction in drive alone trips was accompanied by a 46.7% increase in the use of "Environmentally-Friendly" modes by residents in the target area (CHART 2). The data indicates a strong increase in walking, biking, and transit use among program participants. While not affecting people's everyday mobility.

Chart 3 outlines trip purposes in the target area. Work trips make up less than 20% of all trips; leisure and shopping make up 47% of trips. The pre and post trip diaries indicate that the largest shifts

in mode choice came from leisure trips, with a 50% increase in biking and a 15% increase in waking for all leisure trips in the target area. The shorter distances and relative time flexibility associated with shopping and leisure trips compared to work trips make them easier targets for promoting walking and biking.

Trip Purposes in the Eastside Hub

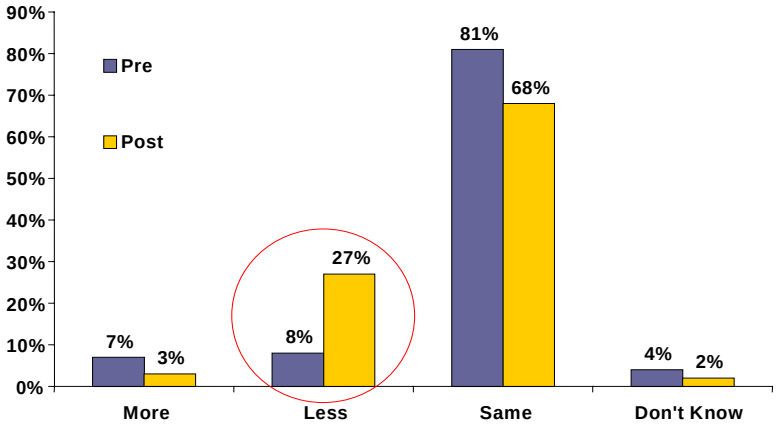


The survey results highlight a strength of the individualized marketing program. It appears a large portion of the population in the target area had considered changing their travel behavior and were at a point where a properly timed nudge or incentive helped them make the change they had been considering. In this case, providing personalized information about walking, biking, and transit proved to be an effective intervention for changing individual travel habits.

The DHM survey also asked whether individuals felt they were driving alone more often, less often, or about the same as they were 3 months ago. In the test area, there was 237% increase in the number of residents reporting they are driving alone less often than they were 3 months ago (CHART 4). The most significant changes came from females and those in the 35 to 54 age group.

CHART 4

Do you think you are driving alone to places more often, less often, or about the same number of times you were three months ago? (test group)



BICYCLING

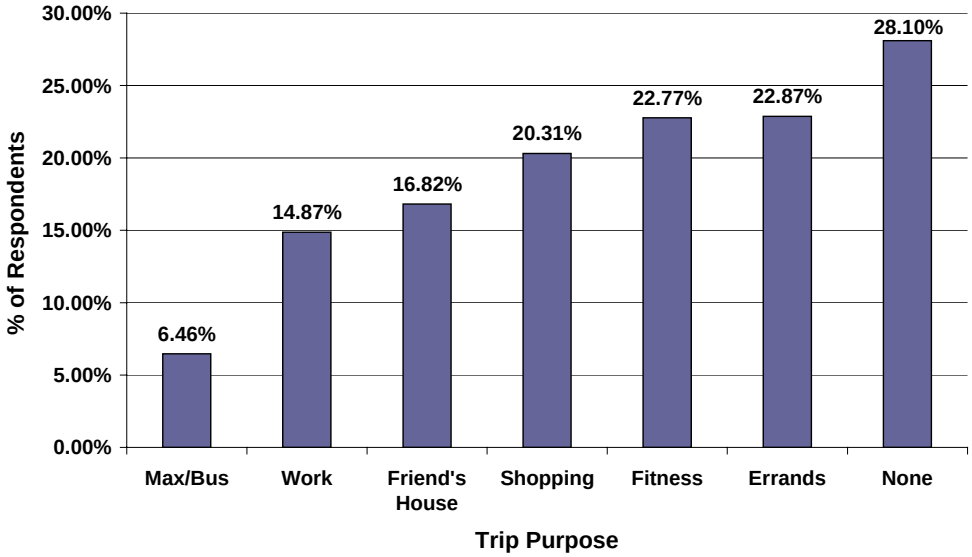
Table 1 below shows the percentage change in bike trips at ten key intersections in and around the target area for AM, Noon, and PM peak totals. There was an average increase in bike traffic at these intersections of 23%. SE Salmon & SE 60th St experienced the most dramatic increase in bike traffic during the PM peak at over 50%.

Table 1 **Location**	**Pre** **Total**	**Post** **Total**	**% Change from Pre to Post** **Total (AM,Noon, & PM Peaks)**
SE Salmon & 60th	59	87	47.46%
SE Harrison and 60th	91	111	21.98%
NE 53rd and Everett	136	164	20.59%
SE Hawthorne and 34th	273	257	-5.86%
SE 32nd and Ankeny	136	150	10.29%
E Burnside and 74th	124	138	11.29%
SE Taylor and 39th	226	291	28.76%
SE Lincoln and 39th	303	374	23.43%
SE Clinton and 30th	335	408	21.79%
SE Clinton and 26th	415	623	50.12%

The DHM survey did not indicate a statistically significant change in biking behavior in the target area as a whole. However, the data indicates that the Eastside Hub project positively impacted bicycle mode split on specific trip purposes. For example, bicycle mode split for leisure trips in the target area increased from 4% in March to over 6% in September, a 50% increase.

Respondents to the written program evaluation indicated that they were taking an average of 1.62 new biking trips each week. When asked what type of new trips they were taking by bike, many respondents said shopping (20.3%) or errands (22.8%) trips (CHART 5).

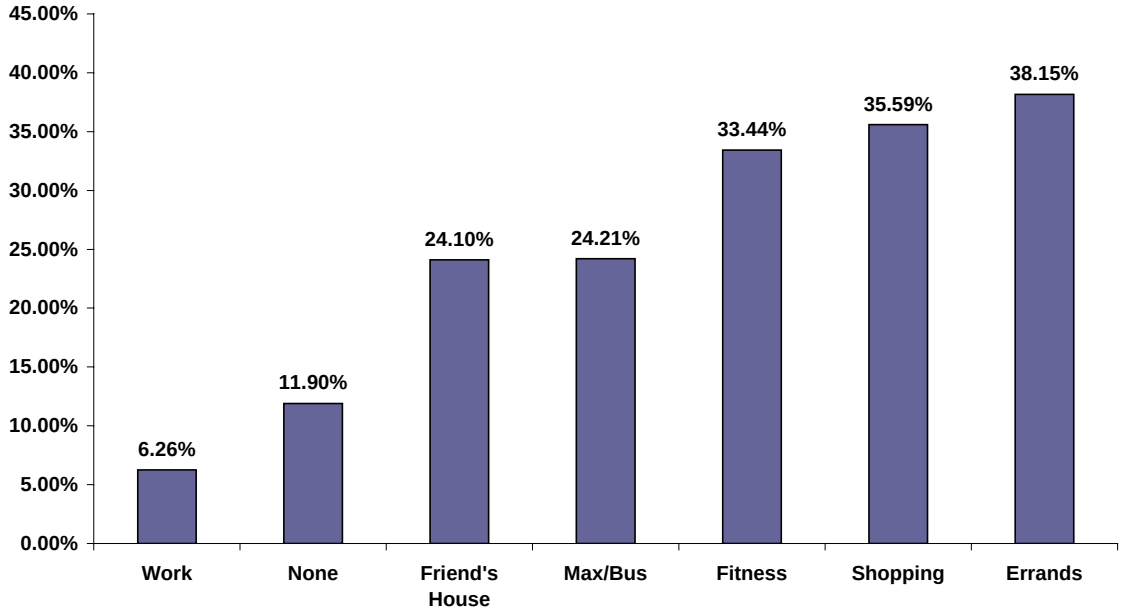
Chart 5 **What type of new biking trips have you taken in the past few months?**



WALKING

Results from the DHM survey show a statistically significant increase in walking in the Eastside Hub, with walking trips increasing from a 14% to 17% mode share in the total area. The number of residents who reported having used a pedometer to counts steps increased from 22% to 27% in the test area.

Chart 6 **What type of new walking trips have you taken in the past 3 months?** (% of respondents)



Respondents to the program evaluation indicated that much like cycling, shopping and other errands were the most common new walking trips taken (CHART 6).

Options also did counts of pedestrians at key intersections in the target area. These counts showed an average increase in pedestrian activity of 7% with the highest increase, 54%, occurring at NE 53rd Ave & NE Everett St.

TRANSIT

DHM findings suggest transit mode split increased from 5% to 7% of all trips in the target area while decreasing from 7% to 5% in the test area, a statistically significant change of 41%. According to the DHM survey, transit mode split increased 69%, from 1.9% to 3.3%, for shopping trips and 22%, from 9% to 10.9%, for work trips in the target area.

27% of participants reported taking the bus or MAX to an event as the most common new transit trip in the program evaluation.

TriMet boarding data will be evaluated to highlight any significant increases in boarding activity at transit stops inside the Eastside Hub. That data will be available in early 2006.

CARPOOL

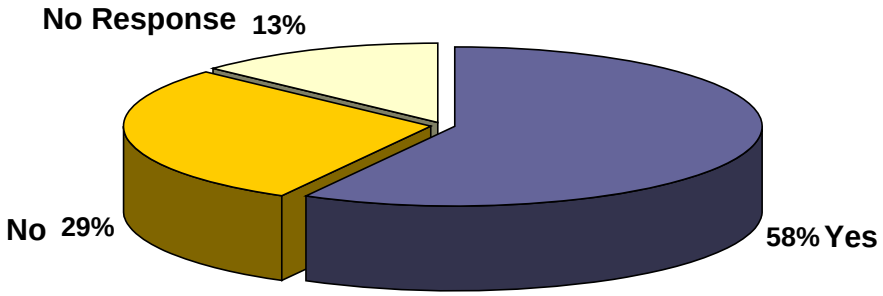
Carpool activity remained fairly constant throughout the program, averaging a 28% mode share for all groups both before and after. However, the region's carpool matching website, www.CarpoolMatchNW.org reported a 14% increase in new members from the zip codes represented in the Eastside Hub.

Program Related Questions

Eastside Hub participants were asked a variety of program related questions in both the DHM survey and the program evaluation. These questions provide valuable feedback for future programs.

Participants were asked if the Eastside Hub program helped them make any new walking, biking, or transit trips, almost 60% said yes (CHART 7).

Chart 7 **Did any of the Hub programs help you make these new trips?**



Residents in the Eastside Hub were twice as likely to have heard of the program than those outside the target area indicating the program name and message resonated with participants, according the DHM survey. With the extensive press coverage it is reasonable to assume that the control group would have been exposed to some Eastside Hub programs.

In addition, Eastside Hub residents were more than four times as likely to recall having received a mailing from Options about the program.

Have you heard of a City transportaiton program called the Hub, or Eastside Hub?		
	Control	Test
Yes	17%	39%
No	81%	58%
Don't Know	2%	3%

During the past 4 months, did you receive any mailing at your house about the Hub?		
	Control	Test
Yes	20%	71%
No	40%	17%
Don't Know	40%	12%

Materials

23% , or 4,700 households in the Eastside Hub ordered information related to biking, walking, transit and other transportation options. Chart 8 below show what was ordered by mode. "Other" includes carpool and Flexcar information, Smart Living class schedule, senior driving information, or Smart Commute Mortgage information. The Ten Toe Express Walking kit was the most popular item, with 85% of participants ordering one. 68% of participants ordered a Portland by Cycle kit.

CHART 8

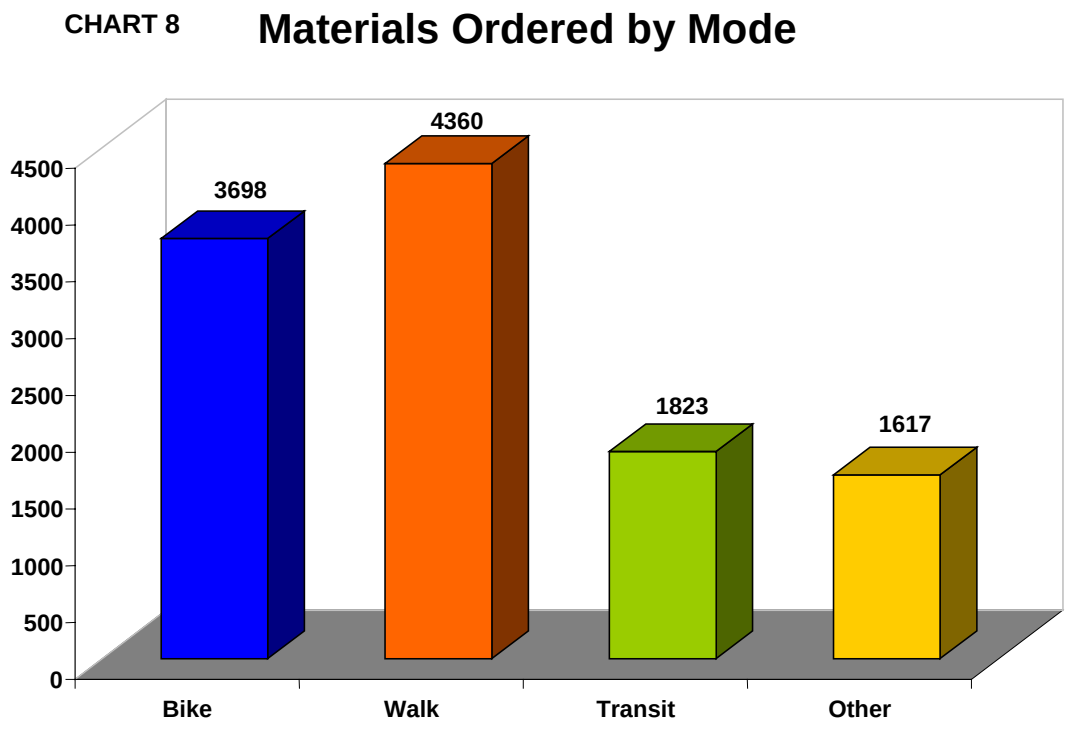
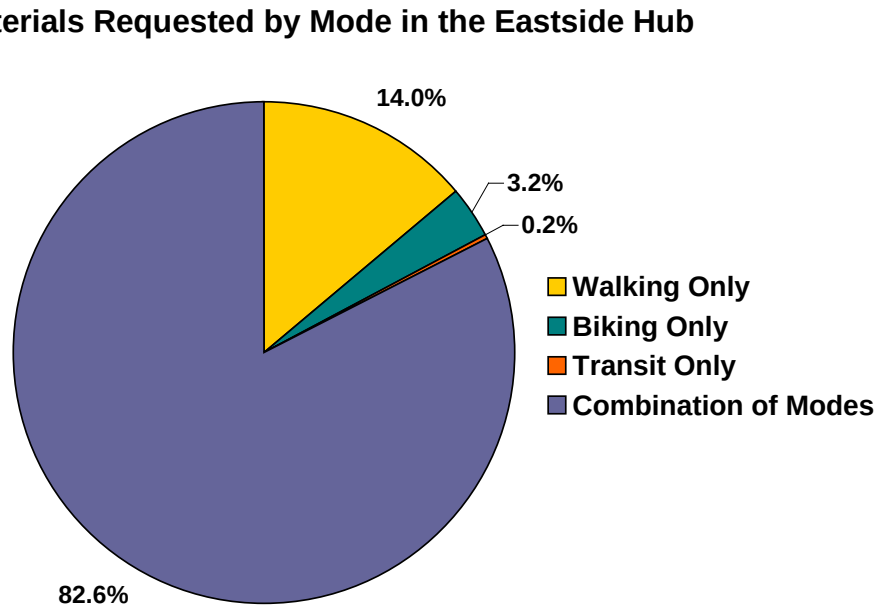


CHART 9



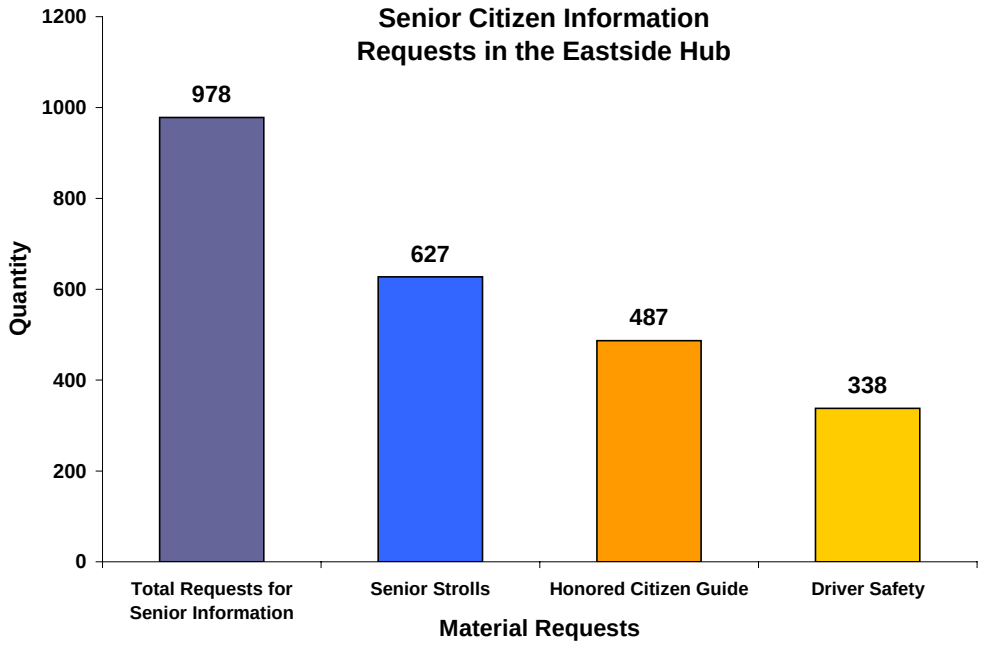
83% of residents ordered a combination of materials, indicating that most residents were interested in learning more about a variety of transportation options (CHART 9).

20% of requests for information included

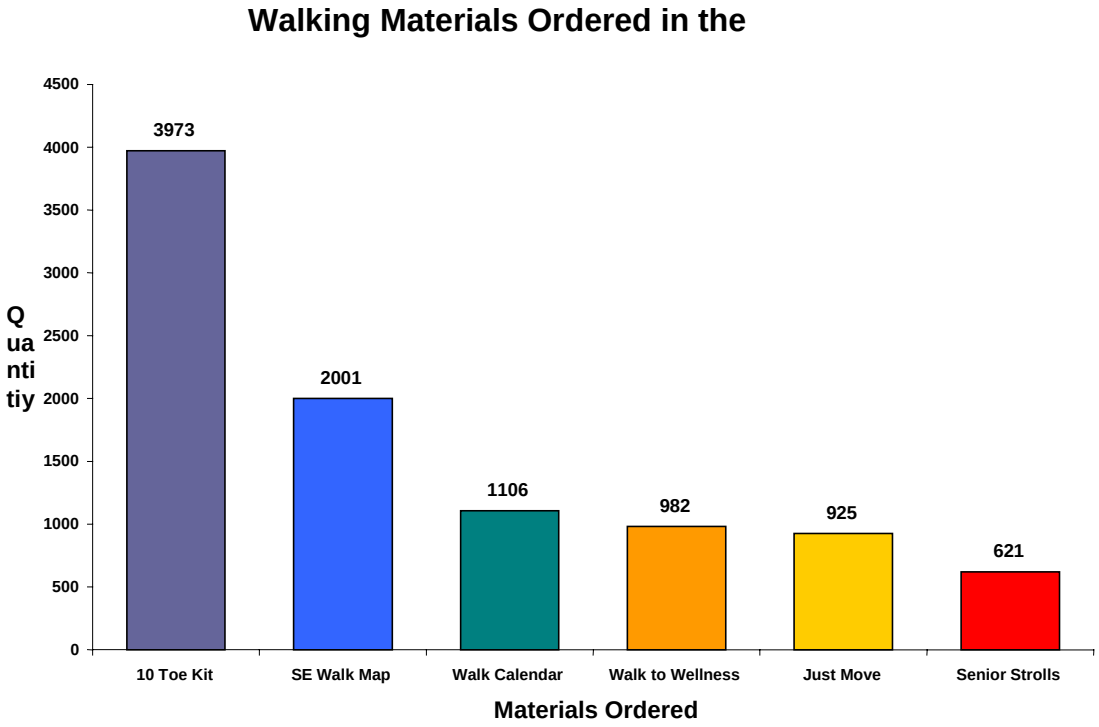
a request for some type of senior citizen related information including tips on driving for older drivers, senior strolls schedules, and TriMet's Honored Citizen guide (CHART 10).

CHART 10

Chart 11



The SE Walking Map was included in all orders, and was also included in the Ten Toe Express Walking Kit. The Walking kit was requested by 85% of program participants.



The Portland by Cycle kit was the most popular biking item requested. Portland Transportation has been producing biking maps for over 15 years and neighborhoods bike maps for 7 years. These items are widely distributed in the community and were a key component of the Portland By Cycle kit. 871 people ordered a “Women on Bikes “ brochure. The Oregon Cyclist Manual, printed by the DMV, proved to be a far more popular item than anticipated.

CHART 12 **Biking Materials Ordered in the Eastside Hub**

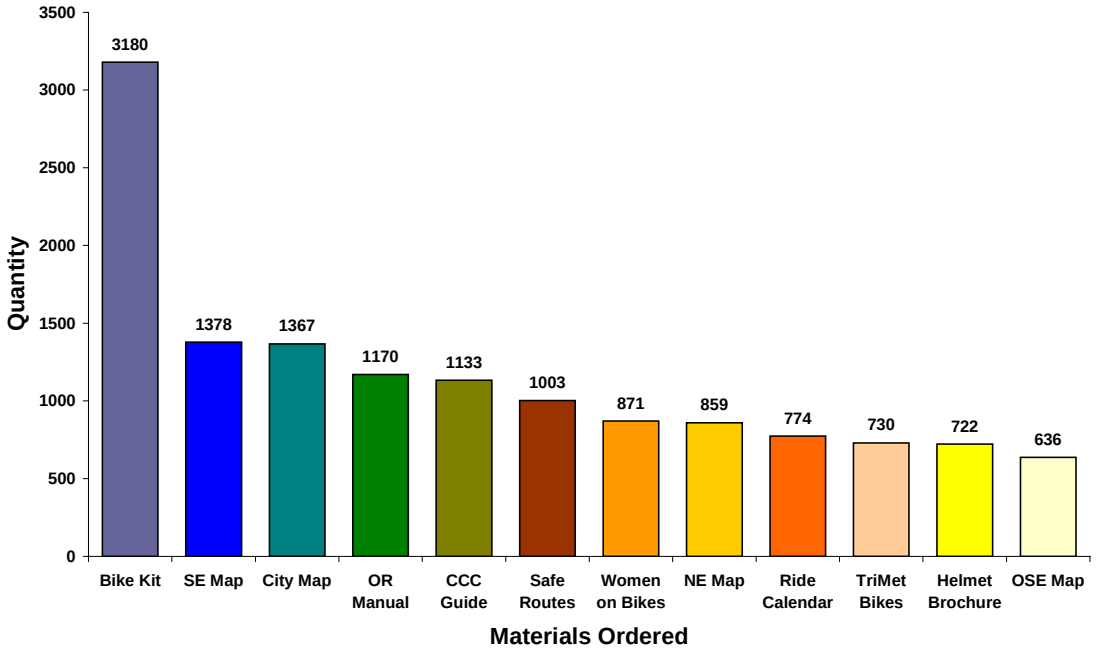


Chart 13

TriMet Materials Ordered in the Eastside Hub

The most popular TriMet materials were schedules for “Frequent Service” bus lines in the heart of the target area. Heavily used lines such as the #72 and the Blue/Red Line light rail were on the edges of the target area, which explains why they were requested less than some less popular lines.