

Bellingham, WA

Individualized Marketing Demonstration Program
Individual City Report

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1.0 Introduction

Bellingham is located on the northern edge of the Puget Sound between Seattle, Washington, and Vancouver, British Columbia. Its spectacular natural environment attracts a steady stream of new residents. Bellingham is the largest city in rural Whatcom County and it is one of the fastest growing areas in the state. Bellingham provides an excellent test of how individualized marketing works to reduce car use and promote alternative transportation options in small cities. The enthusiasm of the community leaders and the public will be critical to long-term, local investments to achieve local transit-building goals, and to build a more sustainable, community-based transportation system.

2.0 Selection Reasoning

Bellingham was selected based on four criteria previously established before project solicitation began. These criteria included:

- a. Leveraging Resources
- b. Partnerships & Coordination
- c. Integration of Project with Overall Strategic Approach
- d. Value of Project Characteristics as National Model

a. Leveraging Resources

This factor focused on the applicant's ability to secure resources beyond those provided by the FTA, and the applicant's commitment to the success of the project through examination of the commitment and resources provided, including in-kind contribution of material, equipment, space, staff time, and other creative contributions.

In response to this criterion, Bellingham proposed a budget of \$158,000, which was a 632% relative financial commitment to the project.

The city also promised office space for use during the project, equipped with two computers, a fax line, Internet and five phone lines. A secured area for storage of materials and survey documents was also guaranteed.

Whatcom Transportation Authority also mentioned that their address could be used for the survey as contact information, and they agreed to rent a post office box to collect the surveys.

b. Partnerships & Coordination

This factor focused on special consideration given to appropriate partnerships created by the applicant for implementation of the project. Scoring took into account the applicant's ability to clearly explain how the staff would coordinate with the project team, how both would contribute toward the success of the project, and how the results of the project would be utilized to improve the applicant's organization. Scoring also was determined by whether the applicant addressed how the project would coordinate with related activities in the organization and community, as well as successful partnerships with community organizations in the past.

In response to this criterion, Bellingham established partnerships with the City of Bellingham, Whatcom County, and Whatcom Council of Governments as well as a group of citizen activists, business leaders, and residents called the Community Transportation Advisory Group (CTAG). Bellingham also promised to develop support for this new approach to transportation investment from community leaders, elected officials, agency and department staff.

c. Integration of Project with Overall Strategic Approach

This factor focused on the degree to which the project would fit into an overall approach to increase ridership in the applicant's location. Greater consideration was given to areas that have demonstrated success in planning and executing other initiatives aimed at increasing ridership, and could show a high level of commitment throughout the organization for the project.

In response to this criterion, Bellingham outlined its strategic plan, which includes the following goals: increase ridership by reaching new riders; promote alternative modes of travel, i.e. walking, bicycling, rail, ferry, and ridesharing trips; solve transportation problems with innovative services and marketing to create a new market share among people who are currently driving for most of their trips; work in new ways with community partners to improve access, land-use, and zoning to enhance transportation choices; and expand WTA's role in non-transit travel alternatives.

Bellingham also provided statistics from past years, to demonstrate what they are already doing to increase ridership. For example, fixed route ridership has increased by 13% since 1999, and boardings per hour have increased by 14%. Bellingham has also reduced bus pass rates at Western Washington University to boost mass transit usage.

d. Value of Project Characteristics as National Model

This factor focused on whether demographic and situational characteristics of the city proved to be of high value as a research demonstration to other locales. Scoring also took into effect the applicant's ability to point out the value of the location as a national or regional model.

In response to this criterion, Bellingham provided many positive factors that contributed to its desirability as a candidate for the project. For example, though the city is small, such an area would give a contrast between the big city and small city results and mentality, and provide a good representation of small cities nationwide. Also, Bellingham's selection would give an opportunity to focus on a combination of transportation options, such as buses, cycling, and walking.

e. Other Considerations

In addition to the four main criteria, other considerations were regarded during the selection process. Some of these included:

- i. Population Size
- ii. Active Fleet Size
- iii. Unlinked Passenger Trips
- iv. Climate Zone
- v. Diversity index

These criteria were scored according to the following chart:

Population size:		Active Fleet Size:		Diversity Index (based on % of non-whites):	
<i>Very Small</i>	Less than 100,000	<i>Small</i>	<50 peak vehicles	<i>Very Low</i>	Less than 20%
<i>Small</i>	101,000 – 250,000	<i>Mid</i>	50-100 peak vehicles	<i>Low</i>	21 – 40%
<i>Medium</i>	251,000 – 500,000	<i>Large</i>	100-500 peak vehicles	<i>Moderate</i>	41 – 60%
<i>Large</i>	501,000 – 750,000	<i>Very Large</i>	>500 peak vehicles	<i>High</i>	61 – 80%
<i>Very Large</i>	750,000 and above			<i>Very High</i>	81% and above

Unlinked Passenger Trips:		Climate Zone:	
<i>Low</i>	Less than 1 million	<i>Zone 1</i>	Very cold
<i>Mid</i>	1 million to 4 million	<i>Zone 2</i>	Cold
<i>High</i>	4 million to 30 million	<i>Zone 3</i>	Moderate
<i>Very High</i>	over 30 million	<i>Zone 4</i>	Warm
		<i>Zone 5</i>	Very Warm

i. Population Size

Bellingham offers a very small population of only 67,171 people. This initially caused hesitation during the city selection process, but because of Bellingham’s high score in the other criteria, it was determined that the city results could be used for comparison in other small cities throughout the United States.

ii. Active Fleet Size

Bellingham’s active fleet size was a very positive contributing factor to the city’s selection, as they have between 100 and 500 peak vehicles, which is considered a large fleet size.

iii. Unlinked Passenger Trips

Bellingham’s unlinked passenger trips were also a determining factor in city selection, as they ranged between 1 million and 4 million, considered a mid ridership statistic.

iv. Climate Zone

Bellingham’s climate also served as a substantial national model, due to their moderate weather, and the option to study how precipitation affects mass transportation.

v. Diversity Index

Like its population size, Bellingham’s diversity index was very low, with less than 20% of non-whites. Despite this low score, other factors were strong enough to keep Bellingham in consideration.

3.0 Public Transit System Description

WTA’s 180 employees provide public transportation services throughout Whatcom County, with the majority of services focused on the county’s largest city: Bellingham. In 2002, Whatcom’s Fixed Route buses were occupied by 2,675,000 riders, (breaking their previous record by more than 5%), and Specialized Transportation mini-buses were occupied by 156,313 riders. For the past five years, WTA has ranked among the top three transit agencies in Washington State for Fixed Route productivity, carrying an average of 31 passengers per hour. In October of 2003, Whatcom increased ridership by nearly 21,000 passengers, largely by users of newly expanded evening and Sunday service and new rural routes to communities in eastern Whatcom County.

Bellingham’s transit system is easy to access and provides relatively low fares for residents. The major north-south corridor is State Street (which turns into James Street), a commercial area. Residents in the transit area are presented with two major destinations: Bellis Fair Mall and downtown Bellingham. Whatcom provides evening and Sunday service.

Evening service runs until 10:30 pm. The fare for WTA is based on a pass and cash only. Riders pay each time they board the bus, and there are no transfers.

Cash fare	\$0.50/ride
	\$0.25/ride for Senior Citizens
Monthly Pass	\$15/month
University Student Pass	\$30/quarter
Senior Bus Pass	\$7/month or \$20/quarter
Quarterly Pass	\$45/quarter
Annual Pass	\$150/year

4.0 Coverage / Average Annual Ridership

At the beginning of the Individualized Marketing Demonstration Program (IMDP), Whatcom Transportation Authority (WTA) had approximately 35 routes, which serviced 2.8 million riders per year. According to a 2003 random phone survey of 400 riders and non-riders, the following information was obtained:

- Nearly one third of county residents rode a bus in 2002
- Of the one third, only 35% rode regularly
- 66% of the riders were between the ages of 16 and 24
- 35% of ridership was comprised of Western Washington University (WWU) students

5.0 Test Area

Within the city of Bellingham, a certain area was designated as a “test area.” Houses within the test area received marketing intervention, and those outside the area (control group) were used for comparison purposes.

a. Reason for Selection

There were many reasons for selecting the particular test area within Bellingham, which included, but are not limited to, the following:

- The area provided the project with a sufficient number of households to draw random samples for the survey and marketing intervention. It is common practice to have an area of around 16,000 – 18,000.
- The area had good transit, walking, and cycling amenities and infrastructure. In addition its topography is conducive to all of these alternative modes (relatively flat).
- The neighborhoods were older and more traditional and were therefore different from the three other sites. It was agreed that the FTA IMDP would look at four scenarios and not four identical projects, resulting in a much broader scope of lessons learned. Bellingham’s older and more traditional target area contrasts with that of Sacramento, which is young and has had recent system improvements.

b. Description, physical, ridership, how served, etc

The target area is located in the City of Bellingham and is defined by street boundaries. The following neighborhoods are located in the target area:

- Columbia
- Lettered Streets
- Cornwall
- Sunnyland
- Roosevelt

The control group for this project is the rest of the City of Bellingham, meaning a random sample is drawn from the rest of the city. This provides Bellingham not only with a control group, but with good mobility indicators for the entire city.

6.0 Methods

a. How IMDP was applied

The Individualized Marketing Demonstration Program is marked by three distinct phases:

1. 'Before' Survey
 - a. Segmentation Phase
 - i. Group I
 - ii. Group R
 - iii. Group N
2. Individualized Marketing Intervention
 - a. Motivation and Information Phases
 - b. Convincing Phase
3. After Survey

These three phases follow a process that has been pre-planned and implemented previously in other areas. Each lasts approximately six weeks.

i. 'Before' Survey

The Bellingham 'Before' survey was conducted using a mail-back survey technique utilizing a one-day trip diary for all household members. The goal of the 'Before' survey was to gather information about the target and control areas, including residents' current travel patterns and habits, their interest in public transportation, walking, and cycling modes, and their willingness to learn more about environmentally friendly modes of transportation in their community. The first nominated travel day for the Bellingham 'Before' survey was on May 24, 2004. Announcement letters were sent in advance to inform 4,400 participants about the purpose of the travel survey. A main mailing letter and an information pamphlet accompanied the mail-back survey diaries, which were received by respondents on their nominated travel days. A series of telephone calls and reminder letters were then used to motivate the respondents to return their travel surveys.

The Bellingham 'Before' survey design was unique because two 'Before' surveys were conducted in Bellingham – one for the target group and one for the control group. The target area samples were drawn randomly from selected areas of the city, while the control group samples were drawn from the rest of Bellingham. This methodology was chosen so that robust mobility data for the entire city could be presented during the IMDP kick-off meeting in Bellingham on September 8, 2004.

a. Segmentation Phase

Segmenting households using the 'Before' survey data made it possible to identify households that were willing and able to change their mobility patterns, and those who already use one or more environmentally friendly modes. Households that were not interested and had no potential for change received no further direct contact, but were sent an AAA brochure on how to use their car more efficiently.

Nine hundred persons were randomly selected from the target group of 988. These 900 were then classified into three main groups:

1. Group 'I' – Participants willing and able to change their mobility patterns, and those interested in receiving more information about the how, when, and why of public transportation and alternate transportation methods.
2. Group 'R' – Participants already using one or more environmentally friendly transportation mode. This group was then separated into two sub-groups:
 - a. 'R with' meaning participants already using environmentally friendly transportation mode(s) but interested in receiving information.
 - b. 'R without' meaning those already using environmentally friendly mode(s) but not interested in receiving further information
3. Group 'N' – Households not interested in changing their transportation habits, and those determined to have no potential for change.

ii. Individualized Marketing

a. Motivation and Information Phases

The motivation and information phases focused attention on all households in the 'I' (interested) group and in the 'R with' group (regular users of one or more environmentally friendly modes with information needs). Households in the 'I' and 'R with' groupings were mailed a Service Sheet that contained a comprehensive list of public transportation, bicycling, and walking materials that could be ordered. The 'R without' group respondents received a gift item for already using an environmentally friendly mode, along with additional information materials. This design methodology was utilized because it was observed that regular users of alternative modes without information requests could benefit from new and updated materials.

b. Convincing Phase

In the convincing phase, further services, or 'home visits' were offered to households as an opportunity to learn more about a particular alternative mode via a face-to-face conversation with a qualified representative for each mode, (bus driver, cycling and/or walking professional). The convincing phase was instrumental in motivating and encouraging households to try out an alternative mode they were interested in. Bus passes were distributed during public transportation home visits, thereby allowing household members to 'test' the system.

iii. After Survey

The Bellingham 'After' survey was conducted using a self-administered mail back survey for households and individuals. The survey forms were identical to those used in the 'Before' survey. Announcement letters, reminder letters, and phone calls were also used to motivate residents to fill out and return their travel surveys. The first nominated travel day for the 'After' survey was on August 30, 2004.

7.0 Results

a. 'Before' Survey

As shown in the table below, of the 4,400 surveys mailed, 739 were returned by the post office without opening for varying reasons, such as the residents had moved or the address no longer matched the household name. That reduced the sample size to 3,661 persons. Of those, 2,196 completed and returned the survey. This represents a 60% response to the 'Before' survey. Nine hundred eighty eight of the respondents were in the target area and 1,208 were in the control group.

'Before' Survey Response

Gross Number of Surveys Mailed	4,400
Surveys Returned To Sender Due to Address Change (Sample Loss)	739
Adjusted Gross Sample Size	3,661*
Surveys Returned Complete	2,196
Response Rate	60 %

* Total survey returns are broken down into two sections – the target group returns totalled 988 and the control group returns totalled 1208 *

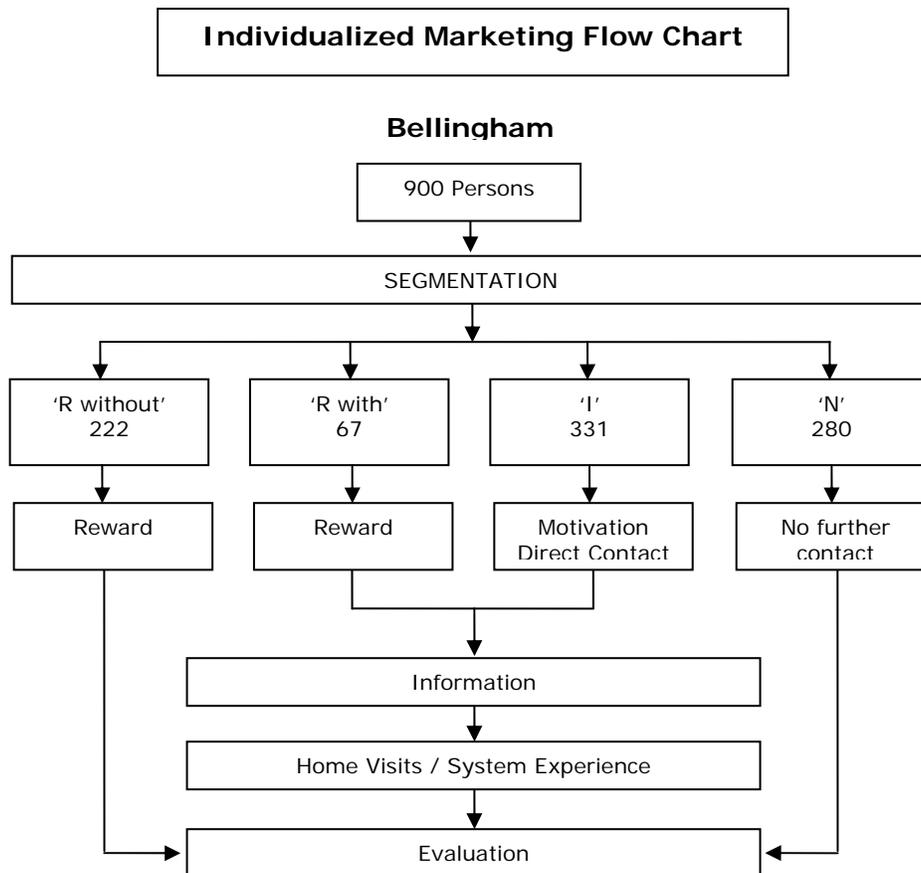
As shown in the table below, the results from the 'Before' Survey indicate that the average private car in Bellingham is used for 986 trips per year, with 782 of those trips taken entirely within Bellingham. Forty nine percent of those trips are less than three miles long, meaning that many of those trips could be easily taken using an alternative mode. These results demonstrate that there is much room for change, and that small changes on the part of the individuals could result in substantial overall effects.

Private Car Trips per Year, Bellingham, WA, 2004

All Trips Per Year	986						
Trips Entirely Within Bellingham	782						
	Up to 1.0 mi	1.1 to 2.0 mi	2.1 to 3.0 mi	3.1 to 5.0 mi	Over 5.0 mi	Total	
Work	23	34	33	55	58	203	26%
Shopping and Services	54	53	44	64	51	266	34%
Leisure	27	43	37	67	54	227	29%
Other	14	11	11	25	25	86	11%
Total	117	141	125	211	188	782	
	15%	18%	16%	27%	24%		

As shown in the figure below, results from the segmentation phase of the 'Before' survey indicated that there were 331 persons (37%) in the 'Interested' or 'I' group, 289 (32%) persons in the 'R' group, and 280 (31%) persons who were 'Not Interested' or 'N' group.

Figure 1: IMDP flow chart



A total of 25 home visits were conducted during the convincing phase. These home visits were approximately 40 minutes long and were perceived as “positive” by each household. They included:

- 9 households received a public transportation home visit from WTA bus drivers. All of these households received a free two month bus pass as an incentive to try the system.
- 6 households received bicycling home visits from a local cycling organization. Each household received personalized advice on bicycling issues and concerns in addition to a free bicycle tune-up gift card.
- 10 walking home visits were conducted by walking advocates from a local walking and cycling organization. Pedometers were given to residents during the home visits to encourage and motivate them to walk more often.

b. After Survey

The response rate to the Bellingham 'After' survey was 71%, with 1,519 persons (net) returning their travel survey, as can be seen in the table below.

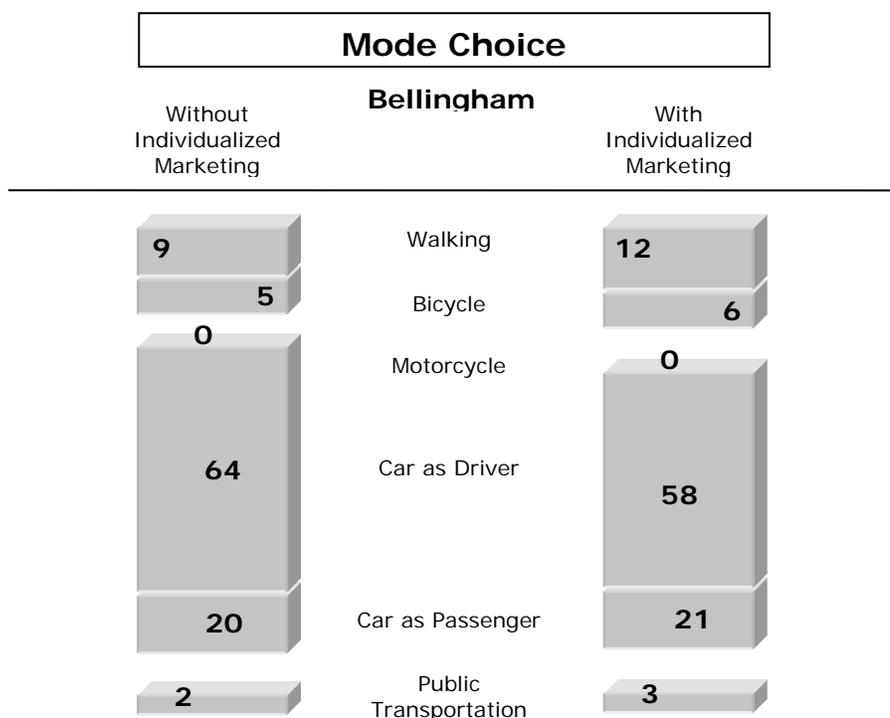
'After' Survey Response

Gross Number of Surveys Mailed	2,000
Surveys Returned To Sender Due to Address Change (Sample Loss)	249
Adjusted Gross Sample Size	2,151
Surveys Returned Complete	1,519**
Response Rate	71%

** Total survey returns are broken down into two sections – the target group returns totalled 659 and the control group returns totalled 868 **

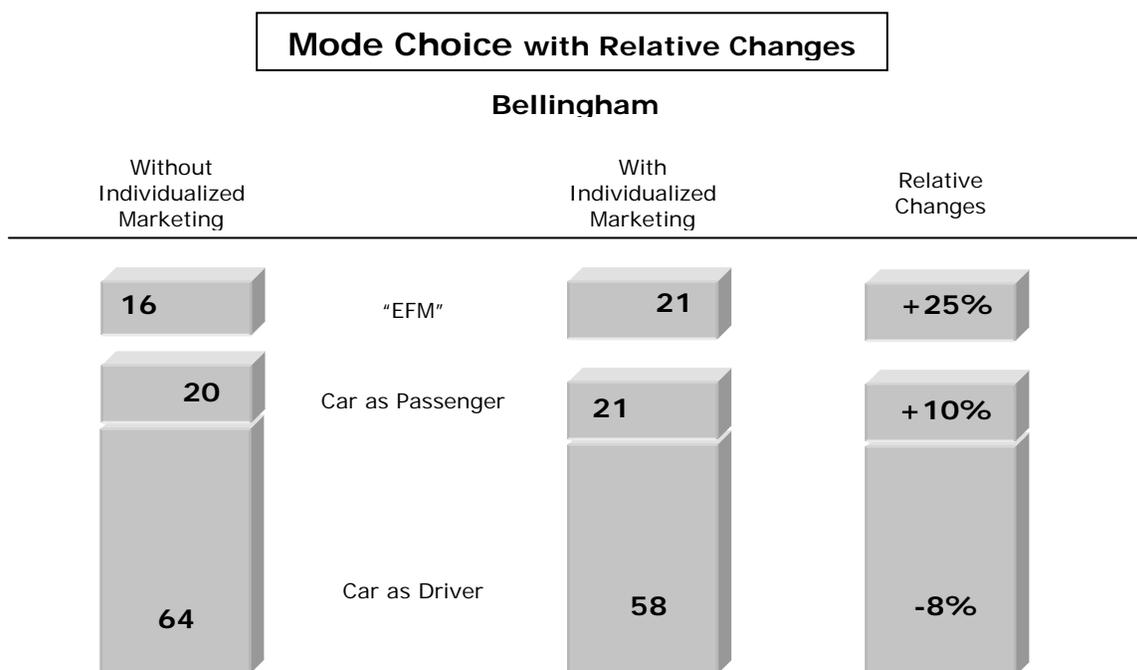
c. Comparison of Before & After Survey Results

An important component of the Bellingham Individualized Marketing Demonstration project is the extensive evaluation of results. A pilot project aims to assess the potential of different techniques for application on a larger scale in Bellingham; therefore, a detailed and robust evaluation of the effects on travel behavior is of critical importance. The actual changes in mode choice are the key indicator of a successful campaign in Bellingham. To separate the effect of the IMDP from other influences, a control group was applied to the survey design. The changes due to the IMDP are calculated by comparing the travel patterns in the target group with those in the control group. This comparison between target and control groups consequently demonstrates the effect of Individualized Marketing. The survey results indicate that there were significant changes in the use of most main travel modes as a result of the Bellingham IMDP. Car (as driver) usage decreased by 8% and all three environmental modes promoted, (walk, cycle, and public transportation), showed double-digit percent increases. The use of public transportation alone rose by 14%.



The figure above also indicates that Bellingham residents are walking (without using another mode) for 9% of their daily trips and bicycling for 5% of their daily trips. The car represents the mode most frequently used, with 64% car (as driver) and 20% car (as passenger) trips. Public transportation accounts for only 2% of all trips. Environmentally friendly modes (EFM) increased substantially following the marketing intervention. The walking mode increased by three percentage points and bicycling and public transportation usage rose by one percentage point each.

The figure below shows the changes in mode choice measured by the 'After' survey in terms of trips per person per year. There was an 8% reduction in car (as driver) use with corresponding increases (+25%) in environmentally friendly modes (EFM) and for the car as passenger mode (+10%).



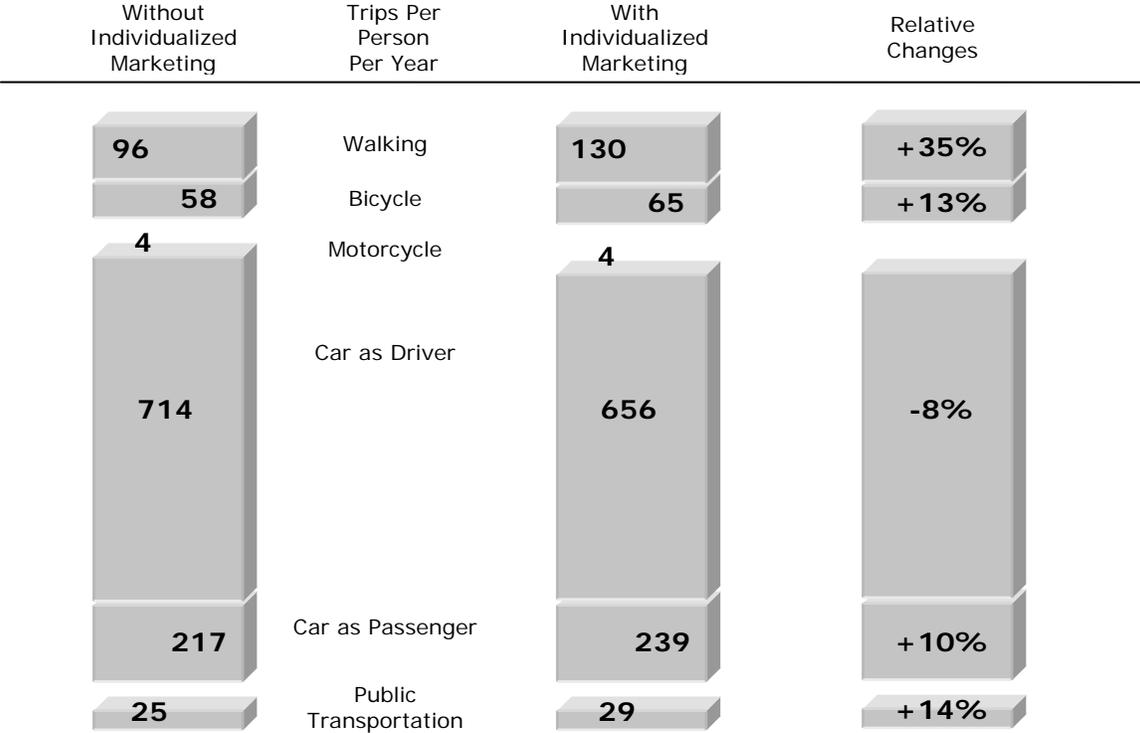
Experience shows that in countries with such low levels of public transportation use, it is more effective to promote walking, bicycling, *and* public transportation. The results for the public transportation mode will be better than simply promoting public transportation alone, and this was the rationale for promoting all environmentally friendly modes in the FTA Individualized Marketing Demonstration Project in Bellingham.

The figure below demonstrates everyday mobility in Bellingham, which excludes long distance trips and holiday travel. For an average of the year (341 days), the majority of trips were made by car, with 714 by car (as driver) and 217 by car (as passenger). On average, four trips per person per year were made by motorcycle. There were 179 trips undertaken per person, per year, by environmentally friendly modes: 96 by foot, 58 by bicycle, and 25 by public transportation.

With the Individualized Marketing Intervention, car (as driver) trips decreased by 8%, while the car (as passenger) mode increased by 10%. Car (as driver) trips were replaced by environmentally friendly modes – walking increased by 35%, bicycling by 13%, and public transportation by 14%, representing statistically significant changes.

Mode Choice: Trips Per Person Per Year

Bellingham



The table below compares everyday mobility car mileage with and without Individualized Marketing. The target group, which contained 900 persons, had a total of 690 cars (both before and after). A successful IMDP campaign resulted in an 8% reduction in vehicle miles traveled by these cars. This equates to 250,000 miles reduced per year.

Car Mileage

Without Individualized Marketing		With Individualized Marketing
690	(Private) Cars in Total	690
13	Miles Per Car Per Day (everyday mobility)	12
3.11 million	Total Miles Per Year (341 days)	2.86 million
	Reduction (mi per year)	-0.25 million
	Relative Reduction	-8%

d. Intended Use of Results

WTA plans to use the results to justify local investment in Individualized Marketing, indicate where higher frequency of fixed route service is warranted, improve marketing and educational materials, test the value of group pass sales and expand current programs, compare the cost-effectiveness of individualized marketing with the existing worksite trip reduction program, continue educating local citizens about transportation choices, provide persuasive data to people on various modes of travel, and highlight appropriate investments in pedestrian, bicycle, and transit facilities and services.

8.0 City Response

According to WTA, the Bellingham IMDP pilot project was a success on all fronts. WTA and the Whatcom Council of Governments (WCOG) worked extremely well together, as well as with the other IMDP staff. Throughout the project, numerous presentations were given, including those to the city council, planning commission, state legislators, planning staffs, transportation advocacy groups, and the general public. The results of the IMDP were strong, and the agency is now actively seeking funding for a larger scale project.

9.0 Conclusion

The Individualized Marketing Demonstration Program in Bellingham was successful in many ways. The Bellingham project team committed necessary resources to the project to ensure that the marketing intervention had a direct impact on residents in the target area. The results indicate that significant increases in mass transit usage, bicycling, and walking were achieved.

Following the marketing efforts, car use decreased by eight percentage points, whereas environmentally friendly modes increased by 25 percentage points. Based on these encouraging results, it is anticipated that a large-scale project conducted in Bellingham would substantially reduce car use, while increasing public transportation ridership and residents' usage of walking and cycling modes.

The success of the Bellingham IMDP results shows that Individualized Marketing can be effectively utilized in smaller cities comprised of older and more traditional types of neighborhoods. It is also anticipated that after comparing Bellingham's results with those of the other three demonstration cities, there will be a good indication of how Individualized Marketing works in different types of neighborhoods located in both large and small cities across the United States.

Since the implementation of the IMDP in Bellingham, local officials and transportation agencies have used the project data to develop more cost effective and sustainable transportation planning efforts. Following the completion of the Individualized Marketing project, the Bellingham Planning Commission set trip reduction goals for single occupancy vehicle (SOV) drivers. Their goal is to reduce SOV trips from 87% (current rate) to 80% by 2015, and down to 75% by 2022. The WTA has created a full-time position within their organization for the research of travel behavior and the development of strategies and programs aimed at reducing SOV trips within Bellingham.

The WTA is also developing a marketing campaign designed to promote their new high frequency bus routes. This campaign is modeled from the Individualized Marketing concept and will help the WTA accrue more ridership in the years to come. The WTA is currently looking for funding to conduct a large-scale Individualized Marketing campaign for the entire city.