

Evaluative Results of Individualized Marketing Programs for “SmartTrips” Programs: Synthesis

Julie Rodwell

**Branch Manager Regional Coordination, WSDOT Transportation Planning, Policy
Development, and Regional Coordination Office**

Prepared by

**Aaron Poor, TRAC Synthesis Editor
Kathy Lindquist, WSDOT Research Office**

February 24, 2009

Transportation Synthesis Reports (TSRs) are brief summaries of currently available information on topics of interest to WSDOT staff. Online and print sources may include newspaper and periodical articles, NCHRP and other TRB programs, AASHTO, the research and practices of other state DOTs and related academic and industry research. Internet hyperlinks in the TSRs are active at the time of publication, but host server changes can make them obsolete.

Request for Synthesis:

Julie Rodwell, Branch Manager Regional Coordination, WSDOT Transportation Planning, Policy Development, and Regional Coordination Office, requested a synthesis of individualized marketing programs, such as the one used for Whatcom County’s “SmartTrips” program, and corresponding comparable evaluation data.

Background:

Individualized marketing for reducing car usage, developed by the German company Socialdata (<http://socialdata.us/links.php>), focuses efforts on people interested in car-reduction programs, but not currently using them. Programs established in the U. S. under the title “SmartTrips” are in Portland, Oregon, Bellingham, Washington, and St. Paul, Minnesota and FTA conducted pilot demonstration projects in three cities. Internationally, individualized marketing programs, similar to those in Bellingham, Cleveland, Durham, Sacramento, and the Oregon DOT “TravelSmart,” have been established in Europe, Australia, and Canada and studied in Japan. Comparable evaluative data are available for a number of these similar programs.

Databases Searched:

- TRIS Online
- Google Scholar
- WisDOT Synthesis Reports
- TRB Research in Progress

Synthesis Summary:

- U.S. Programs
- U.S. Pilot Projects
- International Programs
- Research

U.S. PROGRAMS

Portland SmartTrips: Portland, Oregon

Pedestrian and Bicycle Information Center (PBIC), November 2008

Background:

In 2002, the Portland Office of Transportation brought the individualized marketing program TravelSmart to the United States from Australia and Europe to reduce drive-alone trips and increase walking, bicycling, transit, and carpool trips. The pilot project was conducted in 2003 with 600 households and a large-scale project with 6,100 households followed in 2004. After working with the TravelSmart architects SocialData America for these two projects, Portland

modified the program to reduce costs, add hands-on experiential activities, and extend the contact period with residents to a longer, eight-month dialogue. The result was SmartTrips.

Results:

SmartTrips and TravelSmart projects have yielded a reduction of 9 to 13 percent in drive-alone car trips by all area residents with a corresponding increase in walking, bicycling, and transit mode shares in the SmartTrips areas.

Costs:

The program costs \$10 per person in the SmartTrips area. A typical 20,000-household program costs \$570,000. This cost includes 4.35 FT staff and most materials and services. Staff overhead is included in this number, but computer and general overhead and printing bicycle maps and transit schedules are not.

<http://www.walkinginfo.org/library/details.cfm?id=3961>

<http://www.portlandonline.com/transportation/index.cfm?c=43801> (Portland Smart Trips home)

<http://www.portlandonline.com/transportation/index.cfm?c=43819> (Links to past project info)

SmartTrips Downtown Interim Report

Portland Office of Transportation, October 2008

Executive Summary:

SmartTrips Downtown is an individualized marketing program of the Portland Office of Transportation. It is part of the Keep Portland Moving initiative, which is designed to reduce traffic congestion during the Portland Mall revitalization project by assisting downtown employees to utilize more efficient and environmentally sustainable modes of transport.

Portland SmartTrips individualized marketing program operates under the assumption that many people will shift to more sustainable, inexpensive, and healthy transportation modes if they learn about all of their options. SmartTrips Downtown has continued the success of the residential SmartTrips program and added many new innovations.

This is an interim report from November 2006 through June 2008 . . .

- Participants reported an 18% relative reduction in drive-alone trips one year after ordering materials. Approximately 1 out of every 5 participants shifted at least one drive-alone commute trip a week to an environmentally friendly mode.
- SmartTrips Downtown used market segmentation to target specific populations with carpool or bicycling messages. These promotions reduced drive alone trips 26% and increased bicycle commute trips 142%, respectively, among targeted participants.
- Bike Champions, a SmartTrips Downtown initiative, harnessed the skill and energy of current bicycle commuters to encourage their co-workers to try bicycle commuting. Through the project, 23 downtown workers have begun commuting by bike (*p. 1*).

Commuters that reported driving alone every weekday on the baseline survey . . . reported a 32% decrease in drive-alone commute trips. In addition, 20% of participants that drove alone everyday on the baseline survey shifted four or five commute trips each week to an environmentally friendly mode (*p. 7*).

<http://www.portlandonline.com/transportation/index.cfm?c=43820&a=215711>

SmartTrips Southeast Final Report

Portland Office of Transportation and City of Milwaukie, December 2007

Choosing Southeast Portland:

Three major factors contributed to choosing this area.

Completed and Future Infrastructure Materials:

The Bybee Bridge and Springwater Three Bridges projects were completed in 2005 and 2006, respectively. These new and improved facilities offered southeast Portland residents access to many more neighborhoods and business nodes by walking and bicycling than ever before.

Walking maps for these areas were already developed and printed with the support of Kaiser Permanente.

New light rail, streetcar, Sellwood Bridge and other major infrastructure investments for this area are scheduled many years down the line. As SmartTrips works best postconstruction, waiting for these new amenities would have pushed SmartTrips out of this area for many years.

Material Development and Partnership Opportunities:

Grant and sponsorship money from Metro and Kaiser Permanente for southeast Portland made this area an attractive partnership for Transportation Options. Milwaukie city government was interested in reaching out to its constituents concurrently with some master planning work. SmartTrips enabled them to engage many of their households in their planning process. In 2006, the Cities of Portland and Milwaukie jointly applied for and were awarded funds from Metro to expand the SmartTrips Southeast project to include 3,400 households in Milwaukie. Kaiser Permanente has taken the lead in the Portland region sponsoring walking maps and providing pedometers for walking programs. Kaiser agreed to sponsor the reprinting of the Southeast Portland Walking Map that was in short supply for calendar year 2007 (*p. 7 of PDF*).

Performance Measurement and Results:

SmartTrips Southeast saved over 19 million vehicle miles traveled in 2007 and reduced drive alone trips by 9.4% (*p. 15 of PDF*).

Reduction in Drive Alone Trips, Individualized Marketing Projects in Portland 2003-2007:
(*taken from graph*)

- 2003 TravelSmart Pilot (SW)—9 percent
- 2004 Interstate TravelSmart—9 percent
- 2005 SmartTrips Eastside—8.6 percent
- 2006 SmartTrips Northeast—12.8 percent (*p. 16 of PDF*)

Overall there was a 17.5% increase in environmentally friendly travel modes among southeast residents (*p. 22 of PDF*).

<http://www.portlandonline.com/transportation/index.cfm?c=44106&a=183837>

IndiMark® and Behavior Change Results for the Cities of Salem-Keizer, Eugene, and Bend, Oregon

Socialdata America Ltd, March 2007, ODOT Individual Transportation Options Pilot Project, Contract No. 24872, Final Report of IndiMark® and Behavioral Analysis

An individualized marketing demonstration in three regions saw a 9 percent reduction in drive-alone trips overall—10 percent in Bend, 3 percent in Eugene, and 11 percent in Salem-Keizer, and a 31 percent increase in environmentally friendly modes of travel (walking, cycling, and transit)—35 percent in Bend, 18 percent in Eugene, and 52 percent in Salem-Keizer. The demonstration yielded a reduction of over 1.3 million VMT (*p. 3-4*).

Detailed program results begin on page 50.

http://www.oregon.gov/ODOT/PT/PROGRAMS/TRANS_OPTIONS/TRAVEL_SMART/TravelSmartMar07Rpt.pdf

Smart Trips Summit-U Final Report

St. Paul Smart Trips (Minnesota), November 2008

The results from a before and after phone survey of Summit-U residents and residents of a control neighborhood showed a net increase in biking and walking trips in Summit-U of 33%. Vehicle miles traveled (VMT) decreased in the neighborhood by 20%, however, when compared with the control neighborhood, no VMT reductions can be directly attributed to the Smart Trips Summit-U program. This phenomenon is likely due to the spike in gas prices that occurred during the program period. The strength of the program in these circumstances is that while the general

population drove less in the summer of 2008, Summit-U residents actually shifted their driving trips to walking and biking, while those not exposed to the program did not (p. 2).

Trip diary data showed an increase mode share for walking by 3.6% and bicycling by 2.2%. There was a decrease in mode share for transit by 1.1% and no change for carpooling.

Drive-alone trips in the neighborhood decreased by 21%, but the control neighborhood had a decrease of 24% (p. 3).

Choosing Summit-U:

The Summit-U neighborhood was chosen for this pilot program for several reasons including: existing amenities, established materials and diverse demographics . . . It was important that the pilot neighborhood be a place with safe sidewalks, bike-friendly streets, parks, shops and restaurants. The Summit-U neighborhood fits these criteria and is an accessible, lively area. Second, a neighborhood map depicting Summit-U had already been created as part of the Midway in Motion program, so time and money were saved by utilizing existing resources. Third, it was a priority to pick a neighborhood with a diverse population, similar in some respects to the city as a whole . . . and Summit-U demographics fit this criteria reasonably well (p. 5).

Cost per Person:

The Smart Trips Summit-U program costs only \$10 per resident to administer. This calculation includes the \$25,000 phone survey in the budget number and excludes residents under the age of 18, who are not targeted by the program ($\$134,000$ (total budget) \div 13,162 (Summit-U adults) = \$10.18 per person).

Greenhouse Gas Reductions:

Using the total annual VMR, as well an average miles per gallon figure of 20.4, the additional walking and biking trips are estimated to save residents over 112,000 gallons of gas per year (Table 9). This gas savings reduces greenhouse gas emissions by 990 metric tons per year (p. 33).

http://www.smart-trips.org/downloads/Summit_U_Final_Report.pdf

<http://www.smart-trips.org/> (St. Paul Smart Trips home page)

U.S. PILOT PROJECTS

Bellingham, WA, IMDP, Individual City Report

MELE Associates, February 2006, prepared for FTA

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% (p. 11 of PDF).

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 . . .

[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%) . . .

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 (p. 12 of PDF).

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 (p. 13 of PDF).

http://www.fta.dot.gov/documents/Bellingham_Report_Final.pdf

Whatcom Smart Trips Implementation

Whatcom Smart Trips (Bellingham, Wa.), February 2009

As of February 2009, Smart Trips members have recorded about 9,000 trips by foot, bike, transit, and rideshare, resulting in the reduction of over 15 million VMT. In spring, the program intends to produce a white paper and slideshow to help transportation professionals implement similar initiatives.

<https://www.whatcomsmarttrips.org/news/default.aspx>

<https://www.whatcomsmarttrips.org/login.aspx> (Whatcom Smart Trips Home page)

Cleveland, OH, IMDP, Individual City Report

MELE Associates, February 2006, prepared for FTA

Car (as driver) usage decreased by 3%, whereas car (as passenger) mode increased by one percentage point. The walking mode showed the most significant change, increasing by 2%. The use of public transportation and bicycling rose slightly, but these small changes can only be seen on the detailed level of trips per person per year (*p. 11*).

The walking mode increased by two percentage points. The bicycling and public transportation modes increased slightly, but these changes were not statistically significant. Car (as passenger) mode rose by one percentage point, whereas car (as driver) mode decrease by 3% . . .

[In terms of trips per person per year] there was an 4% reduction in car (as driver) use with corresponding increases (+18%) in environmentally friendly modes (EFM) and for the car as passenger mode (+5%) . . .

With the Individualized Marketing Intervention, car (as driver) trips decreased by 4%, while the car (as passenger) mode increased by 5%. Car (as driver) trips were replaced by environmentally friendly modes – walking increased by 13%, bicycling by 33%, and public transportation by 26% (*p. 12*) . . .

A successful IMDP campaign resulted in an 8% reduction in vehicle miles traveled by [cars in the target group]. This equates to 430,000 miles reduced per year (*p. 13*).

http://www.fta.dot.gov/documents/Cleveland_Report_Final.pdf

Durham, NC, IMDP, Individual City Report

MELE Associates, February 2006, prepared for FTA

Car (as driver) usage decreased by 4% and the two environmental modes promoted, (walking and cycling), showed increases. The use of public transportation rose slightly, but these small changes can only be seen on the detailed level of trips per person per year (*p. 11 of PDF*) . . .

In terms of trips per person per year . . . there was a 7% reduction in car (as driver) use with corresponding increases (+19%) in environmentally friendly modes (EFM) and for the car as passenger mode (+7%) . . .

After the Individualized Marketing Intervention, car (as driver) trips decreased by 7%, whereas the car (as passenger) mode increased by 6%. Car (as driver) trips were replaced by environmentally friendly modes – walking increased by 15%, bicycling by 25%, and public transportation by 35%, representing statistically significant changes (*p. 12 of PDF*) . . .

A successful IMDP campaign resulted in an 11% reduction in vehicle miles traveled by [cars in the target group]. This equates to 530,000 miles reduced per year (*p. 13 of PDF*).

City Response:

TTA believes it would be very difficult to attribute ridership changes to the IMDP because the project is of a small scale, and there were other fare and service changes occurring at the same time. However, they felt that the results of the project show that there are intangible benefits to producing and sharing marketing materials that empower the user to make smarter choices.

After the completion of the IMDP, TTA plans to use the lessons learned from the IMDP to target University students, using similar outreach tactics, and other tools. They found that social marketing, like that of the IMDP, is a concept that can be used to TTA's advantage in future projects (p. 14 of PDF).

http://www.fta.dot.gov/documents/Durham_Report_Final.pdf

Sacramento, CA, IMDP, Individual City Report

MELE Associates, February 2006, prepared for FTA

Survey results (*beginning p. 11 of PDF*) reveal that after the Sacramento IMDP car usage decreased by 2 percent and walking and transit usage each increased by 1 percent. In terms of trips per person per year, usage of environmentally friendly modes showed a relative increase of 23 percent (from 7 percent of overall trips to 9 percent) and car-sharing 1 percent. Trips by walking increased 15 percent, bicycling 30 percent, and transit 43 percent. The campaign resulted in a 4 percent reduction in VMT for the cars in the target group, equating to a reduction of 160,000 VMT over a year.

http://www.fta.dot.gov/documents/Sacramento_Report_Final.pdf

INTERNATIONAL PROGRAMS

Leading the way in travel behaviour change: TravelSmart [UK]

Sustrans, April 2008, Information Sheet FF36

Results of UK TravelSmart programs (p. 3):

Region	Year	Households Targeted	Reduction in Drive-alone Trips	Increase in Environmentally Friendly Modes
Peterborough (Stage 1)	2005	6,500	13%	20%
Peterborough (Stages 2 & 3)	2006	11,750	10%	12%
Worcester (Stage 1)	2005	6,300	12%	20%
Worcester (Stage 2)	2006	8,600	12%	19%
Preston & South Ribble (Stage 1)	2006	10,700	13%	36%
Lancaster & Morecambe (Stage 1)	2006	8,500	12%	16%

The evaluation of the first stages of the Peterborough and Worcester programmes shows that the overall changes were achieved at the individual level by switching an average of around 60 car trips per person per year to other forms of transport, or a little more than one car trip per week across the population. In Peterborough more detailed surveys also showed that:

- The reductions in car use were concentrated during peak times in the morning and afternoon.
- There was a 15 per cent reduction in distances travelled by car for day-to-day trips – a total annual saving of over 9 million km (p. 4).

Recent large-scale TravelSmart projects have resulted in annual savings in car travel ranging from 740 to 1,700 km per household. Based on the lower figure in this range, and the average CO₂ emissions per km of new cars sold in 2005; it is estimated that a national TravelSmart programme targeting all 25 million households in the UK would save around 0.9 MtC a year. This compares, for example, to the projected annual saving of 1MtC from converting 5% of fuel for UK road transport to biofuels in line with the Renewable Transport Fuel Obligation . . .

With a delivery cost of around £20 per household, [individualised travel marketing] could be extended to a city the size of Birmingham (with 400,000 households) for around £8 million – the cost of a little over a quarter a mile of motorway (p. 5).

http://www.sustrans.org.uk/webfiles/travelmart/behaviour_change_ff36.pdf

<http://www.sustrans.org.uk/default.asp?SID=1090834131404> (UK TravelSmart home)

Department for Planning and Infrastructure Working Paper TravelSmart Household program: Frequently Asked Questions in travel demand management and dialogue marketing

Colin Ashton-Graham and Gary John, April 2006

From Key Findings:

- Whilst TravelSmart is four to five times the cost of direct marketing (AUS\$4 per person compared to AUS\$17 to AUS\$21) the relative increase in public transport patronage is eleven to twelve times that of direct marketing (1% compared to 11% to 12%).
- TravelSmart projects in Perth have changed community perceptions of the quality of Perth's public transport system, achieved a 20% increase in public transport patronage and reduced car use by 10%. These outcomes place TravelSmart amongst the most successful behaviour change programs in the world.
- The annual outcomes of the program evaluated to date (from 8 projects involving 143,000 population) include:
 - 10 million fewer car trips
 - 100 million reduction in vehicle kilometres
 - 30,000 tonnes reduction in greenhouse gas (equivalent 6,000 fewer cars)
 - 1.6 million extra hours of physical activity
 - 1.4 million extra public transport trips.
- Tracking of travel diaries and bus ticketing data shows that the benefits of TravelSmart sustained for at least 4 years.
- TravelSmart is more cost effective than mass media approaches for addressing traffic congestion, pollution and the impact of rising fuel prices. (p. 1)

http://www.dpi.wa.gov.au/mediaFiles/ts_faqs.pdf

<http://www.dpi.wa.gov.au/travelmart/14890.asp> (TravelSmart Australia main page)

<http://www.dpi.wa.gov.au/travelmart/14974.asp> (Technical Reports page)

Evaluating Behaviour Change in Transport: Benefit Cost Analysis of Individualised Marketing for the City of South Perth

Ian Kerr, Bruce James, and Western Australia Dept. of Transport, November 1999

Results (p. 3)

[Selected pilot project results:]

- reduction
 - from 79% to 75% of cars used each day,
 - from 3.3 to 2.9 trips per car per day,
 - of 14% in car-kilometres;
- increased use of local shops and services;
- 2 kilometres less travel per person per
- day, but 4 minutes additional travel time;
- changed modes for all types of trips.

To ensure that observed effects could be confidently attributed to individualized marketing, the pilot project was carried out with no media publicity or associated initiatives. A broader-scale program of individualised marketing would be reinforced through the media and community groups, increasing its effectiveness.

Public Transport Capacity (p. 7):

South Perth was chosen for the pilot project because, amongst other things, there was sufficient capacity in public transport services to carry additional public transport trips generated by individualised marketing. There was no additional cost (capital or operating) for provision of public transport services.

Socio-Economic Evaluation (p. 13):

Even on the most conservative assumption in the central evaluation, an investment of \$1.3 million in individualised marketing in South Perth would produce benefits of \$16.8 million (present value) over 10 years, with a benefit-cost ratio of nearly 13:1.

Including the anticipated benefits through mortality reduction increases the BCR to 15:1. The only substantial negative in the evaluation is the increased road trauma through walking and cycling, but this is more than offset by the reduction in car crash costs and the specific health and fitness benefits.

Financial Evaluation:

For public transport, as a whole, the first-year rate of return is 48% and the cost of individualised marketing would be recovered in a little over two years. Over a 10-year evaluation period, the present value of benefits would be 2.24 times the initial investment.

Financial Sensitivity (p. 16):

The key results are:

- Farebox cost recovery, for public transport as a whole, becomes less than one in the 'low benefit' case (82%), although it still compares favourably with the overall level of farebox cost recovery for public transport (24.2% for 1997/98 (Transport, 1998, p79)).
- Only in the very long term (30 years) high benefit case does Transperth, the WA Government's public transport authority for Perth fully recover the costs associated with individualised marketing. Even so, the rate of cost recovery under the high benefit scenario (83%-115%) is several times that from public transport generally (24.2%).
- The major financial benefit under current contracts accrues to the private operators of bus services in Perth, whether or not they make a financial contribution to the program.

Conclusions (p. 17):

The only qualification to [the positive results] is with respect to the value attached to travel time. If small increments of travel time are given the maximum possible value consistent with the results of the pilot project, the estimate of overall socio-economic return becomes negative in the worst-case scenario, itself a combination of a large number of 'unfavourable' values.

http://socialdata.us/pdf/Cost_Benefit_Analysis.pdf

TravelSmart in the Greater Vancouver Area

Translink—South British Columbia Transit Agency, TravelSmart Home page

The TravelSmart pilot in the Greater Vancouver Area is the first time this program launched in Canada. Pilot programs are concurrently underway in six neighbourhoods located in the inner, middle, and outer rings of the metropolitan Vancouver region. With varying degrees of access to transit and other travel options, travel behaviour differs significantly in these areas. This program will help determine what combination of conditions and incentives are necessary to reduce vehicle travel in different areas.

[No program results available]

http://www.translink.bc.ca/Plans_Projects/Urban_Showcase/TravelSmart/default.asp

RESEARCH

TCRP Report 111: Elements Needed to Create High Ridership Transit Systems

TranSystems, Planners Collaborative, Inc., and Tom Crikelair Associates, January 2007, sponsored by the FTA in cooperation with the Transit Development Corporation, TRB

Individualized marketing is a technique used to target transit non-users. This method takes a personalized approach and informs individuals of what their alternative transportation options are for the trips that they typically make. While this technique may require more resources than others described here, it has the potential to be very effective. The FTA conducted a pilot project in Portland, OR, and found that as a result of the effort, use of transit and other "environmentally friendly" modes in the targeted area increased by 27%. The FTA is now sponsoring four more

individualized marketing demonstrations: WTA in Bellingham, WA; TTA in Durham, NC; Sacramento (CA) RTD; and GCRTA in Cleveland, OH. Europe and Australia applied this basic technique more widely; *TCRP Report 95* notes that participating transit operators in Germany saw ridership transit increases between 10 and 30% among the targeted market segments (*p. 97 of PDF*).

http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_111.pdf

TCRP Report 95: Traveler Response to Transit System Changes, Chapter 11: Transit Information and Promotion

Katherine F. Turnbull et al, 2003, sponsored by FTA in cooperation with the Transit Development Corporation, TRB

The ultimate in targeted promotion is one-on-one personal contact. To date this has been almost exclusively the province of “individualized marketing” experiments and applications in Europe. In seven large-scale applications in Germany, increases in target group transit riding ranged from 10 to 30 percent, averaging 23 percent. Information from the earliest experiments shows the positive effect tapering off very slowly, with increases in mode share diminished by only 10 percent or so after 2 to 4 years. The increases were comprised of both more riding by current riders and riding by new patrons of transit, and were heavily concentrated among non-work travel purposes more oriented to off-peak transit use (*p. 11-6*).

http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_95c11.pdf

Individualized Marketing for Public Transportation Fostering Light-Rail Systems

Franz Barta, Werner Brög, and Erhard Erl, 2007, Transportation Research Board 86th Annual Meeting

From Abstract: The example of the “Saarbahn”, a light rail system in the Saarland region in Germany proves that Individualized Marketing helps to introduce new systems to the people. Analysis has shown that solely introducing the new system with “classic” advertising reaches a limited potential whereas additional Individualized Marketing can double it. Europe developed the concept of Individualized Marketing and its applicability in the United States was in doubt. However, the first successful application of IndiMark® in Portland, Oregon now exists. It was accompanying the opening of a new light rail service. If the share of public transportation increases in Portland as is has elsewhere, the system effect could double.

[Check Research Library for availability]

More passengers, higher profits for public transport—(im)possible expectation!?

Werner Brög and Marion Schädler, May 1999, 53rd UITP-Congress, Toronto

This paper presents the benefits of many German applications. Public transportation use in large-scale applications rose from 16 to 19 percent (*p. 9 of PDF*). Increases in public transportation usage predominately occurred at off-peak times (*p. 10 of PDF*). Individualized marketing resulted in 23 additional transit trips per year for target groups (*p. 11 of PDF*). Satisfaction for transit programs increased from 57 to 74 percent in target groups, and negative perception decreased from 18 to 10 percent (*p. 14 of PDF*).

http://socialdata.us/pdf/UITP_Toronto_Paper.pdf

Determinants of the effectiveness of travel feedback programs—a review of communicative mobility management measures for changing travel behaviour in Japan

Satoshi Fujii and Ayako Taniguchi, September 2006, Transport Policy 13(5): 339-348

Three individualized marketing surveys conducted showed reductions in CO₂ emissions from 15 to 35 percent and in car use from 15 to 40 percent (*discussion begins on page 342*). In one study, individualized information based on a 7-day travel diary was more successful than that based on a 1-day diary, producing a 35 percent reduction in CO₂ emissions versus 20 percent (*p. 346*).

[Check Research Library for availability]

Reducing family car-use by providing travel advice or requesting behavioral plans: An experimental analysis of travel feedback programs

Satoshi Fujii and Ayako Taniguchi, September 2005, Transportation Res. Pt. D: Transport and Environment 10(5): 385-393

In this study an individualized marketing effort to reduce single-family car use was compared with a behavioral planning approach (in which subjects were asked to develop their own commuting plan). The results showed that the number of days of car use were only reduced significantly for the planning group (from 19.75 to 17.46 per month). An insignificant reduction for the individualized marketing group, which differs from previous findings, could have been due to outside factors, such as weather over the course of the survey.

[Check Research Library for availability]

Psychological and behavioral effects of Travel Feedback Program for travel behavior modification

Ayako Taniguchi et al, 2003, Transportation Research Record 1829: 182-190

From Abstract. The effects of the Travel Feedback Program (TFP) on travel behaviors and psychological factors that may influence automobile use were investigated. TFP was proposed as a method of modifying travel behavior with automobile use into travel behavior without automobile use. In TFP, participants were asked to report their travel activity behavior, after which they received feedback on that behavior, including information about the amount of carbon dioxide emission resulting from the behavior, and comments or suggestions from the program coordinators on how to reduce automobile use . . . The psychological and behavioral data confirmed the set of hypotheses of causal relations, and the data indicated that TFP has a significant positive effect on pro-environmental behavior even 1 year after participation in TFP.

[Check Research Library for availability]