TRANSPORTATION CHOICES: CAN SOCIAL MARKETING MAKE A DIFFERENCE?
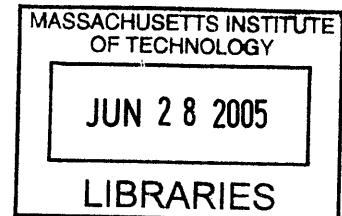
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TRANSPORTATION CHOICES:
CAN SOCIAL MARKETING MAKE A DIFFERENCE?

By Miriam Lydia Sorell

Abstract

In the US, automobile use is responsible for 25% of air pollution, resulting in health and respiratory problems, and increasing the likelihood of climate change. In order to limit these negative impacts of automobile use, governmental bodies and transportation agencies employ a number of different strategies including changes in transportation policy, infrastructure, and technology. Marketing and advertising campaigns represent another strategy which is used extensively, but which has not been thoroughly evaluated.

This thesis investigates how to develop marketing campaigns that will encourage people to voluntarily switch to alternative modes of transportation such as walking, biking, or using transit. The field of Social Marketing provides valuable insight into how marketing and promotional strategies can be used more generally to encourage the adoption of behavior changes that benefit health, the environment, and the social condition; a model of the Social Marketing process and principles is assembled and used to evaluate three examples of transportation marketing campaigns in the US: San Francisco's "Spare the Air" campaign, the Chicago Transit Authority's New Residents program, and the federal "It All Adds Up to Cleaner Air" campaign.

While the specific campaigns vary greatly in terms of the tactics they employ, ranging from advertising on billboards to providing free subway rides, a common thread is that these tactics must be based on careful understanding of the values of the target audience (the people the campaign is meant to reach), and the barriers they see to changing behavior. Campaigns that rely on environmental awareness are unlikely to influence choices because people value their own time and convenience more highly. Campaigns must show people simple modifications they can make to their transportation behaviors that will be benefit *them*. Finally, organizations must take better care to document and evaluate their campaigns, so that future campaigns can benefit from past experience.

Acknowledgements

First and foremost, I would like to thank my advisor, Mark Shuster, for his interest in my topic and for giving me tremendous encouragement and guidance throughout the process, even in the face of personal hardship. I am grateful to Cherie Abbanat, my reader, for her ability to continually help along my thought process, but also for her dedication and friendship.

I would like to extend my thanks to Ralph Gakenheimer and Mikel Murga for their insights into my topic, and to Sandy Schultz-Hessler for being a major source of inspiration. There is a long list of people who generously gave their time to help me find and develop my case studies, but I would especially like to thank Kathy Daniel, Luna Salaver, and Jeff Wilson for their energy and helpfulness.

I am indebted to Waseem Daher, Charlie Kehoe, Joshua Mandel, Mary Ross, Keith Winstein, and especially Jennifer Krishnan, without whose technological savvy and availability in times of crisis this thesis would never have made it off of my personal computer—and I must also acknowledge a certain Compaq laptop which was sacrificed in the writing process, despite a history of loyal service.

Finally, I would like to thank my parents for their immense support, not just in the thesis process but throughout my entire time here at MIT. Multsumesc şi ve iubesc!

Miriam
Sorell
5/4/90

1. I would stop driving and instead walk, boat, and bus and train and tell people to stop driving!

2. It would gradually stop air polution!
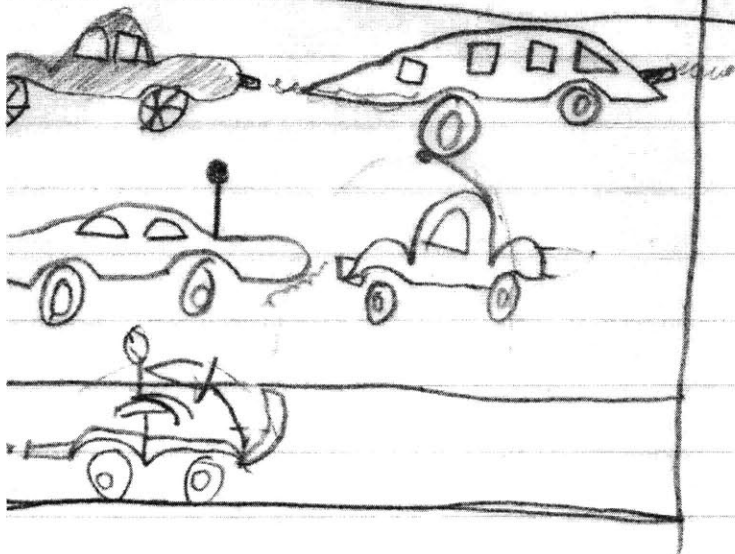
3. Give the earth fresh air to breath!

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1. Introduction

Today, most trips in the United States are made by car. The compounded effects of automobile use over the past century have brought pollution and congestion, while planning cities for cars has resulted in weak urban design that for the most part is unfriendly to pedestrians and reinforces the need to drive. Marketing could be used to encourage people to try alternative forms of transportation, such as public transit, carpooling, or biking and walking. It could also be used to encourage people to reduce their total number of trips, by telecommuting to work or combining multiple errands into one trip. Although marketing is currently being conducted by transit agencies, metropolitan planning organizations, and non-profits, there is no consensus in the transportation world on the most effective ways to get people out of their cars. However, the field of Social Marketing presents a fairly developed science for how to encourage people to change behavior and to promote things like health, social development, and the environment. This thesis explores how transportation marketers might use cues from Social Marketing to produce campaigns that have measurable effects on transportation behavior.

The question posed in the title of this thesis, "can social marketing make a difference in transportation choices?" contains a two layered question that I hope to answer: first, in addition to changing "real world" factors like infrastructure, is it possible to influence people's transportation choices using marketing and promotion? Secondly, can lessons from the field of Social Marketing in particular make a difference in how transportation marketers design and implement their campaigns? I hope to show that the main principles of Social Marketing are relevant and applicable to the field of

transportation, and to encourage transportation marketers to employ Social Marketing tactics in order to improve the effectiveness of their campaigns.

Background

There are many ways in which people can be encouraged and convinced to switch from driving to alternative modes of transportation such as biking, riding transit, or carpooling. One can even reduce the negative impacts of automobile use without reducing driving at all. These things are often accomplished by changing infrastructure, changing policy, and changing technology. I think it is important to begin by showing my readers the many different ways to influence transportation choices, in order to see how marketing is just one part of an immense, ongoing movement to improve the quality of life through better transportation options and behaviors.

Because driving is such an important part of life to most Americans, solutions often focus on how to reduce pollution or congestion without reducing the number of cars on the road. For example, although car engines still pollute, they are better than 50 years ago, with more fuel efficient models available, improved exhaust filters, and cleaner gasoline—and in 2005 electric and hybrid vehicles are rapidly gaining in popularity. Front-seat airbags, seat-belt laws, and penalties for Driving Under the Influence all attempt to make driving safer in terms of accident and injury prevention. Additionally, projects such as E-Z Pass[1] and highway expansions help to reduce congestion and keep traffic moving by increasing capacity rather than removing cars from the road.

Urban planners and transportation specialists have tried to reduce the dependence on single occupancy vehicles by making public transit and alternative modes of

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[1] An electronic toll collection system that is common in the Northeast US to allow cars with EZ Passes to go through toll collection plazas without having to stop.

transportation more accessible and desirable. Forward thinking planning theory focuses on pedestrian- and transit-oriented development: high density, mixed use development that allows people to live and shop and go to school all within walking or biking distance, with work and other activities easily accessible by public transit. With this form of development, cars are not as necessary as they are in suburban areas that are strictly separated into bedroom communities, strip malls, and office parks. The goal here is to make environments in which cars are unnecessary and potentially burdensome.

Transportation planners often come at the problem of getting people out of their cars by trying to make transit alternatives more competitive with driving. This might mean subsidizing bus and train fares to make it economically attractive to use transit instead of driving, especially if the subsidy targeted lower income neighborhoods where car ownership is less feasible and financial constraints are more significant. It might mean building new systems, or expanding existing systems, to make transit faster, more frequent, or more accessible—to provide a level of convenience closer to that of cars, or in hopes that things like time savings will be more attractive than door to door service.

Other strategies that make alternatives more appealing include adding carpool lanes to freeways and bike lanes to main streets, as well as separating bike and pedestrian paths. Traffic calming measures such as raised crosswalks and median strips simultaneously make driving more of a hassle and walking more pleasant, while dedicated lanes and signal prioritization for buses on high-traffic city streets increase the service levels and perceived importance of buses compared to cars.

Finally, pricing and policy changes by cities, property owners, or employers can all help to increase the attractiveness of using other modes. Gasoline taxes and

congestion pricing make driving more expensive, which is a strong disincentive for some people. Parking that is expensive and difficult to find in downtown areas (where transit access is usually better anyway) can turn people to other modes, whether the price is based on city policy or simply market forces; another example of how price can be set by city policy is London's new charge of about eight dollars to even enter the city center area with a car. And employers can provide incentives for commuters such as subsidizing transit fares or giving priority parking spots to carpools.

Why use marketing?

Of all these different methods for changing transportation behavior, there is one central factor that they all share in common: they each change something tangible that makes it physically or financially more attractive for people to leave their cars at home. I am personally more intrigued by the idea that even without making any more changes to the "real world" there are great opportunities to reduce automobile use, by appealing to people who have never considered using a different mode, or do not know how to, or are not aware of the benefits to themselves and to society. In addition to changing policy and infrastructure to make alternate modes more attractive to more of the population, I believe that advocates of these modes should use marketing to help convince people who already have the potential to switch, that this is something they can and should do.

Another thing that is intriguing to me about the idea of marketing is that, in a way, anyone can do it. Subsidies and new transit services and bicycle lanes are all great incentives, but are changes that must be initiated by certain types of organizations—city governments, developers, and transportation agencies to name a few. Marketing, on the other hand, can be done by pretty much anybody, from environmental advocacy

organizations to bicycle clubs to community groups. Anyone who wanted to could put up signs around their office or neighborhood stating something like "bike to work!" and this would be a form of marketing. It may not be the best or most effective way to bring about change, but it does not require millions of dollars or political support, and it has the potential to make a difference.

Why use Social Marketing?

My interest in marketing alternative modes of transportation was initially inspired by the apparent influence of anti-smoking campaigns in America. If public service announcements could help reduce tobacco consumption—whether by extolling its dangers, by making it seem less "cool," or by increasing knowledge about secondhand smoke—surely similar tactics could be employed to show people that driving their cars was bad for the environment, or perhaps to make riding the bus the new "cool" thing. Since I did not find too much written on theories of transportation marketing, my original intention for this thesis was to do case studies of public service campaigns in other fields, and from these I would draw my own lessons and develop theories about what might work in the field of transportation.

Before proceeding too far in this direction, I made the discovery that although there was not a single set of theories for marketing of more sustainable transportation behavior, there was, in fact, a whole field dedicated to the marketing of more sustainable behaviors. The lessons and theories I had hoped to draw from programs like anti-smoking campaigns had already been drawn, analyzed, and written about extensively under the name of "Social Marketing."

Although it was daunting—and a little embarrassing—to realize that a whole field existed on the subject I had intended to write a masters thesis on, I soon realized that I was probably not the only person in the transportation world who didn't know about Social Marketing. The new purpose of my thesis became to learn more about this field and to evaluate its potential usefulness for marketing alternative forms of transportation—and if the lessons seemed valuable, to bridge the gap between this field and the transportation community so that future transportation marketing campaigns could benefit from the expertise already developed in this field.

Methodology & Thesis Structure

Before learning about the field of Social Marketing, I tried to get a general feel for the work that has already been done on the issue of promoting different types of transportation; the next chapter is intended to give the reader a background on my most salient discoveries. There are two main categories of literature that I was able to find on my topic: the first comprises articles and reports that discuss and evaluate different types of marketing that might be relevant to transportation, and that make suggestions for their use. These papers tend to be mainly focused on public transportation, and on advertising as the primary means of promotion. The second category includes reports that detail the development and implementation of specific campaigns that have been conducted; these tend to be more descriptive in nature. Because literature on effective marketing transportation was limited, I expanded my search to include any evaluation of marketing being used to promote changes in behavior, particularly those that benefit public health or the environment—through this search my review evolved to include an exploration into the field of Social Marketing, which became the focus of the thesis.

From the Social Marketing literature, I began to synthesize a model for what a transportation marketing strategy might look like, which I then used to evaluate three case studies of actual campaigns that have been used to target transportation choices. Thus, in the third chapter, I present a marketing model, which discusses the main principles of Social Marketing, such as the need to be customer focused and to evaluate campaigns, as well as the main steps that marketers should take to produce campaigns, from conducting research to strategic planning to implementation and evaluation. My composite model includes theory and arguments taken from a variety of sources, but I am particularly indebted to texts by Alan Andreasen and Philip Kotler, and lectures by Sandy Schultz-Hessler. The model also includes specific examples of how general social marketing theory could be applied specifically to transportation issues; some of these are based on real campaigns and some are my own theoretical examples.

In the fourth chapter, I provide and analyze three case studies in order to demonstrate how the social marketing model is relevant for the types of campaigns that are already being put forth, either by transportation agencies, governmental bodies, non-profit organizations, or metropolitan planning organizations. I wanted to choose campaigns that differed considerably in terms of the goals and tactics used, to match the broad range in types of campaigns currently staged, and to then see whether the social marketing model seemed applicable in these different settings. The case descriptions are put together based primarily on internal reports and documentation provided to me by the organizations running the campaigns, as well as interviews with key people within these organizations. One of the campaigns is a federal initiative organized by the Environmental Protection Agency and the Department of Transportation, which uses

advertising to disseminate messages about air quality and transportation choices. The others are on a more local level, in San Francisco and Chicago, and both use the incentive of a free transit trip to appeal to their audiences—although in very different manners. In San Francisco, a partnership between the Bay Area Air Quality Management District and the Metropolitan Transportation Commission arranged a free transit day on certain days of the year, while in Chicago, the Chicago Transit Authority sent free tickets and information to individual households.

At the end of each case study, I compare the planning and implementation of these campaigns to the marketing model set out previously. I comment on the places where the campaign's marketers employed tactics similar to those in the model, and discuss the places where, according to the model, the campaigns fell short. In so doing, I am less interested in passing judgment on the campaigns than in showing how the model could be relevant. That is, in my evaluations of the campaigns I do not intend to say whether the marketers did a good or bad job, but to suggest how, if at all, each campaign might have benefited from using the social marketing model.

In the following chapter, on analysis and findings, I draw together the main points from the individual case study descriptions. These findings primarily have to do with the many instances in each case study in which the application of social marketing theory could have improved the campaigns that I examined. The main opportunities that emerge have to do with certain key aspects of the campaigns. First, I discuss the process of creating campaigns, and the need for marketers to be more customer focused in order to reach members of the public with their messages. Second, I discuss the content of the campaigns themselves, in terms of the types and magnitudes of behavior changes they

promote and what the expectations are for why people will change their transportation choices. Finally, I look at the way these campaigns are—or more appropriately, are not—evaluated, and what this means for future campaigns.

In my concluding chapter, I generalize from my findings to postulate what makes social marketing campaigns directed at transportation choices effective, and what makes them ineffective. While it may not always be easy to make a difference in people's transportation choices, I argue that with help from the field of Social Marketing, campaigns can be produced that will result in behavior change.

2. Literature Review

This thesis is concerned with the intersection between two normally unrelated fields: transportation and marketing. On the transportation end, most of the work being done to reduce the impacts of automobile use on society and the environment is not related to marketing, but rather to changes in infrastructure, policy, and technology. Marketing as a field is dominated by commercial marketing, but even within the newer, more focused, and more applicable field of Social Marketing, transportation issues are not high on the list of subjects being explored. As a result, there is a dearth of academic and published literature on the subject of transportation-related marketing. What does exist is somewhat scattered, focusing on everything from national branding of public transportation to personal consultations on transportation decision making.

In this chapter I try to give the reader a sense for the different types of strategies that are being proposed for the future of transportation marketing. These are based primarily on research and reports from academic journals and from transportation-related trade associations. I will compare these marketing strategies to the more general theories of Social Marketing, which does not address transportation specifically but is nevertheless quite applicable and forms the basis for my next chapter.

Proposed Transportation Marketing Strategies

Perhaps the most basic method of promoting alternative forms of transportation is to appeal to people by showing them the practical aspects of each mode and explaining why it may make sense to ride a bike, take transit, or walk to various destinations. For example, advertising that reminds people of things like the low cost of other modes, the convenience of transit routes, or the ease of finding bicycle parking, may encourage

people to consider these modes instead of driving. Professor of Transport Psychology Steve Stradling conducted a set of surveys to understand which features matter most to people who might use public transportation and identified three main types of barriers that marketers should address: saving money, saving time, and saving effort.[2] In order to further fine tune these practical messages, it is important to understand the many different market segments that a transit agency serves. Knowing who the different types of people are who might ride transit can help an agency better promote the different aspects of their services to these specific groups. Market segmentation also helps transit agencies to tailor their product to these groups through changes in service or infrastructure.[3]

Another main strategy discussed for encouraging use of alternative modes of transportation is to address the *image* of these modes in the eyes of travelers, rather than their actual features. In a study for the Transit Cooperative Research Program (TCRP), surveys showed that compared to driving, public transit is seen in a negative light both for people who do and do not use it. This is not merely based on knowledge of transit systems and reasoned objections to it, but on a more subconscious level related to emotion and perception. The authors of the TCRP report suggest that this be addressed through branding—both nationally and at the level of local transit agencies, there should be a push to create a unified image of transit, using research about current perceptions to highlight the positive ones in peoples eyes.[4]

What this basically means in terms of marketing is that advertisements for alternative modes of transportation should feature pictures and themes that appeal to people emotionally by portraying these modes as fun, hip, or in line with family values.

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[2] Stradling, Steve. "Transport user needs and marketing public transport" 2002
[3] Elmore-Yalch, Rebecca. "A Handbook: Using Market Segmentation to Increase Transit Ridership" 1998
[4] "Enhancing the Visibility and Image of Transit in the United States and Canada" for TCRP, 2000

Materials currently produced by transit agencies or engineers tend to be literal in their use of images: an ad for a bus line will have a picture of a bus, while a brochure about emissions and air quality might have an engine on the cover. Instead, images should be used that conjure up emotions; pictures of happy families, humorous scenes, or beautiful landscapes can communicate volumes more than a bus, which looks the same as any other.[5] A European program called "Emotions for Clean Urban Transport" reports that "Choice of mobility mode is fed by the ideas and images offered by car manufacture marketing. Alternatives are often not considered because they do not enter the heart or mind of the customers."[6]

The idea to use emotions in marketing of public transportation comes partly from a comparison to transit's main competition: the auto industry. The way ads for cars market a lifestyle, rather than something measurable like convenience, should be copied by marketers of transit who can promote a lifestyle that includes public transportation. In Australia, for example, three out of ten households make a car purchase decision each year, based in a large part on marketing that talks to the consumer emotionally instead of talking about the product and its features. Mode choices are dependent on subjective perceptions which differ from real life situations, and Michael Roth, a Travel Demand Manager in Brisbane, Australia insists that "Changing these subjective perceptions using communication instruments are usually cheaper and can be just as effective as changing the 'real world.'"[7]

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[5] Wiltshire, Peter "Applying commercial advertising skills in transport planning" 2004
[6] Verkeer, Langzaam "Emotional Approaches to Mobility Choices: An Inventory and Analysis of Good Practices in Car Marketing, Public Transportation Marketing and Cycling Promotion" accessed 2005
[7] Roth, Michael. "Overcoming Obstacles of Car Culture: Promoting an Alternative to Car Dependence Instead of Another Travel Mode" 2003

One slight criticism that is sometimes made of transportation-related policy and promotion is that "many policies are not devised explicitly to reduce car use, but actually to promote the use of a particular alternative mode, such as bus or cycle travel. These would not necessarily combine to achieve an overall result of reduced car travel."[8] In a slight twist to promoting all modes of transportation *besides* the car, some argue that anti-automobile campaigns could drastically shift users to alternate modes of transportation. Instead of focusing on the benefits and image of public or alternative modes of transportation, ads could focus on appealing to drivers by emphasizing the aspects of driving that are already seen as negative: for example, one campaign idea included slogans such as "When you drive, you risk killing your child."[9] Groups that might be well-positioned to run anti-car campaigns are local authorities and environmental lobby groups; the most effective campaigns would not target veteran drivers but potential car users who are younger and at a stage of life where opinions are less concrete and peer pressure is stronger.

One standard theme for an anti-car campaign is to appeal to social consciousness, particularly in terms of protecting the environment. These campaigns encourage people to use alternative modes in order to be good citizens and protect air quality. These might be more likely to be conducted by organizations that are not specifically focused on transportation but on the environment, rather than many of the strategies previously described which might be run by transit agencies. One variation on raising people's awareness about the impacts of their *own* travel choices on the environment is to remind people that "the amount of time that people spend actively traveling is relatively small

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[8] Marshall and Banister, "Travel reduction strategies: intentions and outcomes" 2000 p. 336
[9] Wright, C. and Egan, J. "De-Marketing the Car" 2000

compared to their exposure to the effects of others' mobility"[10]—campaigns that address

this problem of "passive mobility" is similar to anti-smoking campaigns that highlight the

impacts of secondhand smoke in order to create social pressure to reduce smoking.

This last example—of getting people upset about *others'* mobility—highlights an

interesting distinction in the purpose of transportation marketing campaigns: sometimes

strategies are intended to get individuals to change their own travel behavior, whereas

something like this might be intended to increase support for transportation projects and

policies. In terms of efforts described above to boost the *image* of public transportation,

the way that people feel about public transportation not only affects their willingness to

use it, but their willingness to support projects that could improve it. If marketing can get

citizens to support transportation projects, governments and transit agencies (both at

national and regional levels) will be better positioned to improve the "real world" of

sustainable transportation options.[11]

A majority of the work that I have found about marketing transportation focuses

specifically on public transit. Part of the reason for this is that the institutions that exist

that might conduct research or put out reports often are public transportation based—for

example, the International Association of Public Transport (UITP[12]), the American Public

Transit Association (APTA), and the Transit Cooperative Research Program (TCRP) all

produce transit-specific journals and studies. This means that not only were most of the

reports I found *about* public transit, but the audiences they were written for were

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[10]"Report of the OECD Policy Meeting on Sustainable Consumption and Individual Travel Behavior" 1997 p 13
[11] "Enhancing the Visibility and Image of Transit in the United States and Canada" 2000 and "Report of the OECD Policy Meeting on Sustainable Consumption and Individual Travel Behavior" 1997
[12] Acronym comes from the French name: Union Internationale des Transports Publics.

generally professionals working at transit agencies. However, some argue that advertising only public transportation is not useful, but rather it is important to promote "Environmentally Friendly Modes" (EFMs) as a package.[13] It is also important to note that most of the marketing strategies and theories cited here are just that—theories. The occasional references to campaigns that have actually been conducted were primarily anecdotal, without thorough research suggesting their effectiveness. Rather, while the strategies described above are sometimes based on research into existing perceptions of transit, they are mostly speculative in nature and backed by arguments rather than by data.

Most of the reports that discuss transportation marketing campaigns which have actually been conducted are not published in academic journals or presented at conferences, but are found as internal reports of the organizations that produce them. These reports are primarily descriptive in nature and do not tend to present arguments about the success or validity of the campaigns, nor do they tend to try and extrapolate the principles of these campaigns more broadly. The main reports of this type that I have focused on were the ones for my three case studies, and I will discuss each in the appropriate place.

Social Marketing Theory

The theories of marketing described above come from professionals who are trained in the field of transportation but are trying to branch out into marketing. I did not find any examples of the opposite: trained marketing professionals who try to apply their knowledge to transportation issues. On the other hand, while the field of Social

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[13] Roth, 2003

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Marketing does not address transportation specifically, it comes close by talking about how to get people to change their behaviors in ways that will benefit things like the environment. I spend the next chapter explaining the details of how Social Marketing experts (practitioners and academics) recommend that behavior-change campaigns be designed and conducted, but here I would like to briefly consider what social marketers might say about the various marketing strategies described above.

Social Marketers would be most interested in the strategies that focus on the practical benefits of using other modes of transportation. The research by Stradling into the specific barriers that people see to using public transportation is directly in line with the importance that Social Marketing places on listening to target audiences rather than making assumptions about what they might be receptive to. This kind of research can lead to market segmentation, which is very important to Social Marketers partly because it allows marketers to develop different strategies for different segments, or else to select just a few of the possible segments that might be most willing or able to change.[14] However, only a few of my transportation marketing sources mentioned market segmentation.

The idea of building up a positive image and brand for public transportation is something that Social Marketers would not consider to be an important goal for a campaign. While it is true that having a better image might increase the likelihood for some people to use public transportation, a broad reaching campaign that seeks to improve the image, even if it succeeded, could easily result in many people having positive feelings about the bus but still thinking that "it is great for other people, but not

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[14] Andreasen, Alan R. *Marketing Social Change: Changing Behavior to Promote Health, Social Development, and the Environment.* 1995. p 175

for me." Instead, the underlying aim of Social Marketing is behavior change, and in order to achieve this marketers must address the barriers that the target audience sees to adopting new behaviors.[15] Tactics used must point to these changes; putting pictures of happy families on bus brochures is a great idea—especially because it is so easy to do—but marketers shouldn't expect this to actually make a difference in whether or not people use transportation because it does not address any of the barriers people face.

Using campaigns to increase awareness of the environmental impacts of transportation use is another strategy that is unlikely to result in behavior change. In *Fostering Sustainable Behavior*, Doug McKenzie-Mohr and William Smith provide many examples of situations when people with high levels of awareness about environmental issues were no more likely to participate in environmentally friendly behaviors. In fact, even beyond being *aware* of environmental issues, McKenzie-Mohr and Smith report that "individuals who hold attitudes that are strongly supportive of energy conservation were found to be no more likely to conserve energy" and "an investigation of the differences between recyclers and non-recyclers found that they did not differ in their attitudes toward recycling."[16] These examples are very relevant to transportation, and show that something must be done beyond awareness building in order to get people out of their cars.

Some of the literature on transportation marketing suggested that part of the purpose of campaigns that address environmental awareness, or the image of public transportation, is that they increase support for transportation projects. This may be very important if it will lead to new infrastructure or policy that can impact travel behavior,

[15] Kotler, Philip; Roberto, Ned; Lee, Nancy. *Social Marketing: Improving the Quality of Life*. 2002. p. 76
[16] McKenzie-Mohr, Doug and Smith, William. *Fostering Sustainable Behavior: An Introduction to Community Based Social Marketing*. 1999. p. 11

but it is off the topic of this thesis and of Social Marketing in that the campaign is not what is responsible for creating behavior change.

In the end what is most telling about this tour through the literature is that only one of the papers about transportation marketing specifically mentions the field of Social Marketing: the report by Michael Roth for the International Association for Public Transit. Roth describes a few of the basic steps of social marketing, and then describes a rather unusual campaign in which the staff went door to door offering individual transportation consultations to residents of a few neighborhoods in Europe and Australia. This was an experimental campaign, and conducted by researchers rather than by transportation agencies or governmental bodies; although the results were quite good, the campaign may be difficult to replicate by local organizations as it was expensive and very time-intensive for the marketers.

While I was pleased that someone else had brought the ideas of Social Marketing together with transportation issues, I think that Roth's paper is too limited. His descriptions of the principles of Social Marketing are simplified, although I imagine this is due to the logistical constraints of an article-length paper. But he is also conservative in his suggestion for applying the Social Marketing principles; the campaign described above is very interesting, but may not be a useful example as it would be difficult for organizations to reproduce. This thesis focuses on examples of more standard types of transportation marketing campaigns and how they stand to benefit from the Social Marketing insight presented next.

3. Social Marketing Model

In this chapter I lay out the various steps and principles that the literature suggests should be followed in the creation of any successful social marketing campaign, and provide examples of how these principles might be applied in the context of influencing transportation behavior. In the next chapter, I will use this model as a framework for evaluating three existing campaigns that have tried to use marketing to influence transportation choices.

The model includes the sequential process for developing a campaign as well as some of the main principles that need to be continually addressed in all stages of the campaign. The process begins with formative research and identifying a target audience for the campaign, followed by strategic planning, pretesting, monitoring and evaluation. The main principles that campaigns should try to follow throughout these steps involve focusing on simple and doable behavior changes and understanding the perspective of the customer and what it will take to influence their willingness to try something new.

The content of this section is drawn from four main sources. The first three I have already described in my literature review: Alan Andreasen's *Marketing Social Change*, *Social Marketing* by Philip Kotler et al., and *Fostering Sustainable Development* by William Smith and Doug McKenzie-Mohr. These are some of the leading texts in the still fairly new field of Social Marketing, and they describe the process of developing a campaign from the initial research stages through implementation and evaluation. Andreasen is known in the field of Social Marketing as one of its founders and greatest experts; his book is also one of the leading texts on the issue, describing the core ideas for how to bring about behavior change and exposing the strategies that will never work.

Social Marketing: Improving the Quality of Life, by Philip Kotler, Ned Roberto, and Nancy Lee, addresses many of the same issues as Andreasen, but the format is that of a textbook: chapter by chapter, this text explains the steps a social marketer needs to take to develop and implement a program or campaign, outlining each consideration that should arise. The lessons in both of these books are meant to be applied broadly to social initiatives such as public health, environmental sustainability, safety, and community involvement. McKenzie-Mohr and Smith focus on a much more specific aspect of Social Marketing: they look specifically at environmental sustainability, which can be more challenging to promote than behavior related to health or safety, because it is likely that the results may not directly benefit those making changes—something that is potentially quite relevant to transportation. Their book is not intended as an academic text but as a "how-to" guide to lead practitioners through the necessary steps to create community-based programs and campaigns.

My fourth source is Sandy Schultz-Hessler, a professor of Social Marketing at Tufts University whose lectures I have attended throughout the Spring 2005 semester. Because I have tried to condense a semester-long class and each of these volumes into one section of a thesis, the composite model I present distills the key points from each of these sources into a unified summary. I have only cited instances where a point or argument is taken directly from one of these sources, or else from one of the other sources in my literature review. Unless otherwise noted, the examples I use to illustrate the principles are my own.

In order to make this section easier to read, I have used the feminine pronouns "she" and "her" when referring to the social marketer. Other people such as those the

campaign is meant to target, or other stakeholders and partners in the marketing process, will be indicated by using the masculine pronoun. Sometimes I also use the words "customer" or "consumer" to refer to a member of the target audience (as does the literature). It may sound a bit impersonal, but serves as a reminder that the social marketer's job is to "sell" new behavior as a commercial marketer must sell products. Another clarification I would like to make is that when I refer to the field of Social Marketing, I capitalize it, but at other times I wish to refer more basically to a type of marketing that is often done even without knowledge of the field, and in this case I do not capitalize. For example, the campaigns that I selected for my case studies are examples of social marketing even though they were not all developed within the framework of Social Marketing that I present in this chapter.

Guiding Principles

Several principles of Social Marketing should be kept in mind at every step in the process of planning and evaluating a campaign. These principles are fairly basic, and while they were not necessarily obvious to me starting out, they are quite intuitive; it is easy to comprehend the reasoning behind them and to see how following these principles can lead to a campaign that is more effective and that contributes to the knowledge that will benefit future campaigns. In my evaluation of alternative transportation campaigns, I will be looking not just to see whether the cases parallel the prescribed steps of developing the campaign, but also at how well they follow these guiding principles and, if not, whether they could benefit from doing so.

Behavior Change The number one goal of any social marketing campaign should be behavior change; if the mission is to improve air quality and reduce congestion, it is not enough for people to understand the negative effects of driving—they actually have to reduce driving. Even if intermediate steps involve education and awareness building, the end goal must be to *change behavior.*

Customer Focus In order to get people to change their behavior, the social marketer must see things through the eyes of the "customer," and understand that different people will be persuaded by different arguments. Because social marketers attempt to promote causes that will benefit others, their mindset may be that the "greater good" is a reason in itself to make a change; when talking to customers, however, they must understand that not everyone shares this idea, and that arguments must be based on what individuals want, need, and value. McKenzie-Mohr and Smith stress that people rarely change behavior when the only reason is to benefit the environment or some larger

entity. Furthermore, if people do not make the desired changes, the organization should not immediately pass it off as if the customers are lazy, selfish, or lack motivation; rather, the organization might sometimes have to accept that the behavior change is too hard or that they could not make the behavior attractive enough.

Action Framework The social marketer must have an understanding of the psychology of behavior change and decision making, and understand the stages that people go through before they will take action. The types of changes that social marketers want people to make are usually "high-involvement decisions" meaning that they require a lot of thought and self investment, as compared to decisions such as which brand of toothpaste to buy. For these high-involvement decisions, there is a whole literature in both psychology and Social Marketing theory on frameworks for the decision making and behavior change process.

A fairly simple version proposed by Andreasen includes four stages: precontemplation, contemplation, action, and maintenance. In pre-contemplation, members of the target audience have not necessarily heard of the problem or thought of the preferred behavior as being desired of them. For example, many people who have always driven to work have never really thought about or considered other options because they live too far to walk or there is no public transportation, or because they do not really think congestion or air quality are problems in the region. In the contemplation phase, consumers are actually thinking about other options and comparing recommended behaviors to their own; if traffic has become increasingly congested, a driver might start looking into the available public transportation options. In the action stage, the consumer actually decides to try the behavior for the first time or first several times to see if it

might benefit him, and in the maintenance stage he has decided that the new behavior, say riding the bus, works for him for the time being, and he has no desire or intention to return to driving.

The marketer needs to be aware of these different stages in order to deliver the appropriate messages to the target audience. If someone is contemplating a new behavior, messages that help make the transition, such as maps that show where to buy bus tickets or how to organize a carpool, will hit close to home. For a consumer who has no interest in switching behavior, these messages will be ignored. It is also important to note that action is not the last step in this framework—someone may decide to try the bus a couple of times and decide that it was not really much of an improvement. At this stage it is still important to remind consumers of the benefits of the new behavior; this might also be the point in the process at which to remind people that what they are doing benefits others and that they should feel proud and virtuous in their choices.

Simple and Doable Changes In bringing people from the contemplation stage to the action stage, consumers must not only want to try the new behavior, they must believe that it is within their reach. Reminding people working in an office park that a popular lunchtime destination is just a ten minute walk away is easy enough to grasp that it might have an impact on people who previously did not think twice about driving. On the other hand, general ads promoting a bus system may make a member of the target audience *want* to ride public transportation, but if he worries that he will get lost or confused, he might not ever take the first step of trying it out; messages and products must be aimed at making sure that this type of barrier does not keep people from changing behavior.

Main Steps

The steps involved in developing a Social Marketing campaign are probably more flexible than the principles; depending on what research has already been done, whether similar campaigns have been run, or what the particular requirements are for an organization that is developing a campaign, it may not make sense to do all the steps or to do them in the typical order. Nevertheless, each step should be considered because each will add value to the development of a campaign.

In order to realize the "customer focus" principle described above, one of the main components of the social marketing framework is researching the target audience, which occurs in various forms and at various steps throughout the process. Before the campaign has begun and before messages have been developed, the social marketer needs to conduct formative research to start shaping the campaign. This has two main purposes: to help define who the target audience for the campaign will be and to determine how best to influence this audience. Later, after messages are developed, but before they are disseminated, they should be tested on members of the target audience to make sure they are received as intended. If the messages are confusing, or are not seen as convincing, or otherwise do not have the desired impact, they can be adjusted before going to the public. The last main stage of research is to evaluate the campaigns once they have been implemented.

Formative Research

The starting point for a Social Marketing campaign is research. In order to encourage people to change a behavior, the marketer must know as many details as possible about why people choose to follow their current behavior patterns and what

barriers prevent them from adopting new ones. Some of the reasons may seem obvious: for example, many people do not ride the bus because they do not like to wait for it in the cold or rain. But sometimes the reasons that a marketer assumes are most important are not. Partly this is due to the nature of someone who is involved in an organization that does social marketing; they are often passionate about the issues the organization promotes and may be more likely than the people they are trying to reach to be convinced by arguments that are for the greater good. Furthermore, even in cases in which common sense says that ceasing a behavior will provide a direct benefit, the social marketer may be wrong to assume that everyone is swayed by the same "common sense."

This has been a major issue in campaigns targeting teenage smoking. Millions of dollars have been spent on advertising campaigns over the past decades designed to reduce teen smoking by teaching them of the health hazards, and as a result most teen smokers today are fully aware of the health risks of smoking; in fact, many even over-estimate the dangers. Unfortunately, many start smoking out of a desire to rebel and to be in control of their lives; they feel that the consequences are too long-term to be important—and despite how logical these educational campaigns seemed to marketers, they did not end up having much of an effect on behavior.[17] On the other hand, in the case of the recent Truth campaign, smoking and non-smoking teenagers were recruited to come up with campaign messages that would resonate with them. The campaign these teenagers came up with does not preach abstinence but instead tries to show teenagers how big tobacco corporations target them to replace the thousands of smokers who die or quit each year. The idea is to make teens see that rather than being rebellious when they

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[17] Gladwell, Malcolm. *The Tipping Point: How Little Things Can Make a Big Difference.* 2000. p. 220

smoke, they are actually being manipulated.[18] This shows the importance of understanding the customers; learning what is important to *them* gives the social marketer the information necessary to build an effective campaign.

Identify Stakeholders In order for the social marketer to identify the group of people she would like to influence, she must select from a number of stakeholder groups that have an impact on, or are impacted by, the condition she wants to change. To conduct any campaign, and especially one with limited resources, it is necessary to narrow this list to focus on just one or two stakeholders who may be able to make a difference. In particular, it is important to focus on a stakeholder that there is some hope of influencing. If the purpose of the campaign is to reduce gas emissions, convincing oil companies to stop drilling, thereby raising prices, may be an effective way to do it—however, it is also very unlikely. The stakeholder group that will be targeted in a social marketing campaign should be accessible and present some possibility of being influenced. In addition to oil companies, some stakeholder groups that might be relevant for promoting alternative forms of transportation are city governments, bus drivers, bicycle repair shops, taxi drivers, employers, and, most basically, people who need to get places, be it to work, shopping, etc. Stakeholder groups that are not the target of the campaign might be potential partners or co-sponsors; a city government would probably not be targeted by a marketing campaign, but might be approached for funding or for support such as a link from the city's website or use of the city seal on publications.

Define Target Audiences Once the stakeholder group or groups have been identified, more targeting within the group may need to occur.. For example, among "people who need to get to work" there are people in urban and rural areas, people who

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[18] Ortiz, Christine. Social Marketing consultant and founding member of Truth Campaign 2005

may or may not own cars, and people of all levels of physical fitness, all factors which affect their ability to use an alternate mode of transportation. A message that works for one person may not appeal to another. This is why marketers—corporate and social— segment their markets into different "target audiences." McDonald's, for example, will place very different ads in a women's housekeeping magazine than they would in a children's magazine or a sports magazine, knowing that these segments will be looking for different things in a fast food dining experience. Similarly, a marketer for a bicycle advocacy group will have to use different tactics for appealing to business executives as compared to college students, or men as compared to women.

Segmentation is usually conducted along three dimensions: demographic, geographic, and psychographic attributes of the target audience. Demographics might include income level, race, and number of vehicles per household—quantifiable or categorical descriptors. Geographic segmentation could identify people by region of the country or world—you might need a different approach for people in the deep south than for people in the northeast—or it could identify people based on whether they live in an urban or rural environment. Psychographic segmentation can be harder because it tries to focus on issues like people's values and beliefs—do members of the target audience think of their cars as status symbols? Do they think that the environment is worth protecting? Psychographic traits require more in-depth research to determine. Much geographic and demographic segmentation can be done based on existing data that are generally available, whereas psychographic segmentation requires really listening to what customers have to say about the specific issue being promoted, through focus groups or carefully designed surveys.

Ideally, market segmentation would be done by conducting extensive formative research to pinpoint any emerging patterns of specific categories of people that could be targeted. If this is not possible, there is some amount of natural segmentation that can be done based on assumptions about people's transportation choices. In the Transit Cooperative Research Program report on transit market segmentation, Rebecca Elmore-Yalch describes some of these segments: Loyal Riders, Transit Dependant Riders, Student Commuters, and Suburb-to-suburb commuters. Segmentation by zip code or geographic location is also commonly used as they may be good indicators of the availability of transit services. These segments are based on previous market segmentation efforts as well as on common sense and brainstorming.

By doing formative research, including surveys and focus groups, marketers may be able to come up with much more specific segments: in a North Carolina study of the Charlotte-Raleigh rail corridor, some interesting segments emerge. For example, the study identified "the functional traveler"—28% of the market consisting of full-time employees with higher incomes, who use the train to avoid congestion or other highway hassles. Another segment is "the family traveler" comprising 9% of the market, which is made up primarily of women, from larger households with fewer cars, who are likely to stay away for a long time. Other segments are "the day tripper," "the train lover," and "the leisure traveler."[19] These segments, which really tap into the reasons people choose to make their trips and are based very specifically on formative research, are especially important for developing messages in the planning stage that will resonate with the chosen audience.

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[19] Elmore-Yalch. 1998, p. 20-29

Of the various segments that are identified in this stage, the marketer will want to once again narrow the scope of the campaign. If there are one or two groups that seem more likely than others to switch to a preferred behavior, it may make more sense to focus just on them. For example, young professionals who live in apartments and frequently go out for drinks after work may be more receptive to a campaign urging them to switch to public transportation than heads-of-households who live in the suburbs and come home every night to have dinner with their families. While the marketer might prefer to address the behavior of both of these segments, with a limited budget she could probably have a greater impact by focusing her marketing strategy on just the first segment.

An additional note on conducting research: while it is important to know as much as possible about the target audience in order to create the best, most personal message, most social marketing campaigns will not have the funding to conduct as much research as would be ideal. Andreasen stresses that research should only be conducted if it will help the marketer make a decision.[20] For example, you may conduct a survey and then determine that a certain percentage of drivers find the drive to work to be particularly stressful whereas others who have a similar commute enjoy having that time to relax and listen to music. This may seem useful because the stressed drivers may be more likely to consider an alternative; however, even if it is determined that stressed drivers would constitute a receptive target audience, they are probably distributed randomly through the geographic and demographic data, meaning that there will be no specific channel, no one magazine for stressed drivers, through which to reach them; in this case knowing that

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[20] Andreasen, 1995. p. 98

they might be receptive does not help further the campaign and may have been a waste of resources..

Strategic Planning

In the strategic planning phase the marketer needs to turn the overall mission of the campaign into specific behavior-change goals that the target audience can be reasonably expected to perform, and then determine a way to make the desired behavior seem competitive with current ones.

Mission Statement and Goals   To begin, the campaign needs a mission statement that explains the desired result of the campaign. In *Marketing Social Change* Andreasen describes the mission as stating the behavior that is to be changed, who will make the change, through what methods they will be influenced, and to what end these changes will benefit these individuals and society as a whole: his example for a children's health campaign was,

> The mission of the HealthCom program is to bring about changes in the behavior of mothers of children under five years old through the use of social marketing techniques so as to increase the life-chances of those children and to improve the quality of their lives and those of their family members.[21]

I think that the most important thing to get across in the mission statement is the intended benefits resulting from the behavior change; a child's life-chances in this case, or in an alternative transportation campaign, "less peak hour congestion on route 95" or "Improved air quality in the greater Boston area." Beyond the mission statement the organization should outline more specific goals or objectives that have to do with the actual behavior changes that will lead to fulfillment of the mission statement: for

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[21] Andreasen, 1995. p. 83

example, "By 2006, 20% of Newton residents commuting to Boston will ride the subway." An organization might even have multiple goals that would help achieve the same overall mission. For example, in addition to increasing the number of Newtonians using transit, getting them to carpool or ride bikes would also help achieve the greater mission of improving air quality in the Boston area.

Although the purpose of any social marketing campaign should be to change behavior, the organization may also want to identify knowledge-change and belief-change goals that may make someone more predisposed to try the new behavior. A change in knowledge that could help lead people to make different transportation choices might be to educate them on things like the average time savings to people using the carpool lane, or the actual schedules of buses they might use. An example of where a belief change might be appropriate is if the target audience believes that industry, and not individuals with automobiles, should be responsible for addressing air quality in a region; in this case encouraging people to accept part of the responsibility for air quality requires more than imparting knowledge about major sources of pollution.

Costs and Benefits In order for the social marketer to persuade someone to change a behavior, she must have an understanding of the barriers that keep people from making the change, as well as an understanding of how the new behavior compares with current behaviors, which are thought of as the "competition." In the case of promoting alternative forms of transportation, the primary competing behavior is driving alone—but this may be competitive to different people for different reasons. For example, some people may value the privacy afforded by their own car, whereas others may think that the direct ride to wherever they want to go is the best feature. On the flip side, barriers to

Table 3.1: Hypothetical cost/benefit table for desired and existing behaviors

	Driving Alone	**Using Public Transit**
Costs	• One seat ride from home to work • There when you need it: the car is always waiting for you rather than you for it • Flexibility in case of an emergency or just to go to the store after work • Feeling of security when inside • Means of personal expression (make of car, color, added features • Car is a familiar private space to be used for storing or carrying stuff, playing own music, having some alone time • Can control temperature to your specification and can shut out or let in the weather	• Low monetary costs • Ability to get something else accomplished while on board (reading, talking on the phone, possibly socialize) • May be faster than driving depending on commute • Better service if you want to go at more popular times (rather than worse for cars if you're in traffic) • May bring you closer to end destination • Chance of meeting people/talking to random people
Benefits	• Expensive to fuel, insure, and maintain (but these costs less visible) • In some states, have to pay tolls if using main roads • Hard to find parking space and may have to park far from work • Parking fees • Lots of traffic means spending much of commute at a standstill • Variable so travel time may be unpredictable and vary from day to day; also may feel constrained in terms of when to drive to avoid traffic • Subject to weather—must dig out & clean off when it snows • Can be high stress, must be paying attention to surroundings during trip • Can't go for a drink after work with colleagues because wouldn't want to drive home after • Safety from other cars or from infrastructure problems	• May think of transportation as expensive, especially if you have to pay every time you board • Unreliability/uncertainty—not sure when it is going to come, possibly it will be quite late • Waiting time may be uncomfortable, partly because of not knowing, also if it is outdoors in the cold/hot • Unsafe—at least this may be a perception • Low frequency—maybe you can only leave every ½ hour • May take a long time because of frequent stopping • Stops are not near origin/destination points; may have to walk/bike/drive a long way on either end of trip • Stops running or runs with reduced frequency after a certain time; could be difficult if you have to stay late • All the problems with waiting and reliability are multiplied if you need to make a transfer or run an errand on your way home • If you have things to carry (i.e. groceries) it is much more of a pain than in a car • During peak hours may be really packed and require you to stand up • Uncomfortable seats on vehicles and at stops

switching modes may be circumstances such as child care responsibilities, time constraints, or having to stand in a crowded train. Of course, the marketer also needs to know what factors the target audience thinks are beneficial about the new behavior and what the problems with the current behavior are, so she can play up the importance of these existing beliefs.

Once behavior change goals have been established, the social marketer should go back to the target audience to find out what they think are the costs and benefits of the current and proposed behavior. Table 3.2 gives an example of what this research might reveal for switching from driving alone to using transportation—this list is not based on real data, but research would help to identify which of the costs and benefits are most important to a particular segment and would likely reveal additional factors that may be less apparent to a third party. One important thing to keep in mind when researching these costs and benefits is that there may be instances when members of the target audience mention factors that may not actually exist or make sense—for example, they might perceive public transportation as being expensive, even though it would actually cost far less than the combined costs of parking, tolls, and gasoline needed for car trips. It is important for the social marketer to realize that these perceived costs and benefits are just as important to address as real, tangible barriers.

The Marketing Mix

Once the social marketer has identified the behavior change that she wants to promote, and the most important costs or benefits that are likely to affect the change, the next step is to develop the strategy for getting the message out. One way to think about the strategy is in terms of the "marketing mix" of product, price, placement, and

promotion—standardly known as the four P's.[22] This is a standard framework used both in Social Marketing and commercial marketing, although some social marketers add additional "P's" such as Policy. Each of these factors is important and must be thought about in order to make a behavior change appealing and attainable to the target audience.

Product In the language of social marketing, the new behavior is thought of as the "product" that the organization is trying to sell. This product is thought of in terms of its attributes, which are the physical traits, and the benefits, which are presumably what people want from the attributes. Commercial marketing will often break down their products like this as well: an *attribute* of mascara is that it makes your eyelashes look longer, but the *benefit* that cosmetics manufacturers play up is that this will make you more beautiful. Likewise an attribute of riding transit is that someone else is driving, but the benefit may be that you have extra time to read. Furthermore, the "core product" that is being sold is time, while the "actual product" is having a driver. Commercial and social marketers understand that they need the consumer to be interested in the core product and must advertise its benefits.

Social Marketers also sometimes promote an "augmented product" which is a tangible product or a service that can be obtained to make it easier to change behavior. A bicycle could be an example of an augmented product for a campaign addressing people who live 1-5 miles from their jobs, and the social marketer could team up with a local bike shop to promote cycling. An example of a service that the social marketing organization could provide is an information hotline that people can call for a personalized travel recommendation for a certain trip.

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[22] Kolter, et al. 2002. p. 41

In some campaigns, the social marketer may be able to use augmented products to remove the most real physical barriers to behavior change. In a university safe sex campaign for which the behavior change is "use condoms," the social marketer (maybe the school's health clinic) could distribute the augmented product—condoms—all over campus. She would still need to run a campaign to convince students of the benefits of safe sex, but any student who wanted to use a condom would be able to obtain one. In the case of transportation, product provision is rarely this straightforward. If the behavior change sought is for people to ride public transit, an augmented product that is similar to condoms in terms of cost and distribution might be bus tickets—but even if someone got a free bus ticket, and was convinced by the campaign that riding the bus would be a preferable way for them to get to work, there still may not be a nearby bus service. My understanding is that something like a bike lane or new bus route would fall under the Social Marketing definition of an augmented product. However, in this thesis I am concerned with instances where marketing can be used *without* major changes to infrastructure such as these, and perhaps by agencies that do not have the authority to make these changes.

Price Once products and augmented products have been determined, the marketer should look to the cost and benefit analysis to determine the "price" that consumers will pay for this product—this could mean the actual monetary cost of buying a bicycle, or it could refer to the feeling that you are giving up convenience or time in order to make the switch. The marketer must try to decrease, where possible, the actual or perceived costs of these actions. For example, she might be able to work with the bicycle shop to provide a rebate to people buying new bikes. If the marketer is able to

play up the actual or perceived benefits of the new behavior through the core product and the promotion of the product, this could also serve to make the price that exists seem smaller.

Place Place normally refers to the location where either the new behavior will be performed by members of the target audience or where they will obtain augmented products or services. In a campaign that promotes child vaccination in rural areas, the marketer may realize that mothers cannot always get to the clinic if it is far away, and may try to set up some sort of mobile clinic to make the place of the behavior change more accessible. In transportation, many of the "places" that the marketer would like the customer to have access to are not things that are easy to change: the placement of bus stops for example, or of bike paths or carpool lanes. On the other hand, there may be some innovative ideas of how to place some things that do not require new infrastructure; perhaps supermarkets or bank machines could sell bus tickets, which may be more convenient for people than having to struggle with change when boarding the bus, or employers could reserve the best parking spaces for people who carpool to work. Another aspect of place is that it could be where the decision to do a different behavior takes place; one of my case studies discusses a direct mail program in which information about local transit was sent to people's homes, which is presumably the place where they are making many of their transportation decisions.

Promotion   There are two components to promoting the product: the message that is used to encourage people to change, and the media channels where these messages are placed. The message that is delivered should be based on the research and planning up to this point. The key message or slogan should directly address the core product, and

be supported by any promises of benefits or reminders of the costs of not switching. The style and tone of the message will depend on the audience, and more research and pretesting will be needed to make sure that the message itself resonates with the audience. For different segments and different campaign topics, the message may need to address emotions, or common sense, or social norms; and it may be serious, humorous, or inspirational.

There are hundreds of different choices of media channels for message placement. Some, such as newspaper ads or billboards, may be seen by a huge cross-section of the population, whereas others, such as magazines or coasters in bars, may be able to be directed at a very specific segment of the market. In addition to these advertising channels, it may be possible to get the message out through public relations, popular media, and promotional items like t-shirts and bumper stickers. When choosing a media channel you must keep your target segment in mind; you may be able to match your market segmentation efforts to certain radio stations, magazines, or television channels. Another key concept is that the message should be delivered at the point of decision making—for example, on key chains where people would notice the message every time they went to use their car. Message tone and placement must be particular to specific market segments, which makes pretesting before launching a campaign even more important.

Pretest Once a strategy has been planned (or preferably, at various points during the planning), the marketer should test the strategy on a subsection of the target audience. Such tests could be made using focus groups in which versions of the ads and messages are presented and discussed, or for a large scale campaign it might mean running a pilot

program before addressing the entire market. In either case, pretesting is crucial to ensuring that in between the formative research and the implementation of the campaign, the desires and dispositions of target audience members has not been lost. Hopefully the marketer will only need to make subtle changes to the campaign based on the results of the pretest, but if results indicate that the campaign is likely to be a total flop, it is better for the organization to know this before implementing the campaign; returning to square one is preferable to launching a useless campaign, provided there are no political or funding issues that prevent this choice.

Monitoring & Evaluation

Planning for monitoring and evaluation is actually part of the strategic planning process, although the execution of this evaluation will come with the implementation of the campaign. In order to keep the campaign on track, there needs to be a plan in place for benchmarking progress, and there must also be a plan for evaluating the campaign once it is done. If the social marketer has defined specific, quantitative objectives early on, there is a foundation in place that points to what needs to be evaluated—say, the percentage of people in an area carpooling. The evaluation plan needs to include how the marketer is going to measure this—perhaps through surveys or through traffic counts—and when these measurements will be conducted.

One reason it is important to think about evaluation in the strategic planning phase is that certain types of assessments such as surveys can be costly, and if evaluation is not considered as part of the total cost of the campaign, not enough money may be left to complete this critical step in the process. Evaluation should be planned before the

campaign begins so that behavior change can be measured with a consistent set of metrics before, during and after the campaign.

Evaluating the campaign is one of the most important steps for two main reasons. The first is that it allows the social marketer to determine whether her campaign was successful, which is something she needs to know if the campaign is to continue or expand. The second purpose is to expand the knowledge base in order to benefit future campaigns. Ideally, if an organization decided that an alternative transportation campaign was needed in their region, they would be able to look to previous campaigns and start the planning process with a sense of what strategies are likely to work and to fail. There may be some cities or regions that have very similar market segments, and are similar in terms of the availability of transportation alternatives, and in these cases organizations could save a lot of time and money by basing their strategies on research that others have done.

Evaluation can also be very important for funding new projects, depending on how a campaign is funded. A marketing department of a larger organization may be able to secure a more substantial budget if the social marketer can show that the strategy she wants to use has worked before and promises to be successful. Similarly, an organization that relies on money from grants may have a better chance of being awarded funds if they can demonstrate the expected results in their application.

Return to Listening Social marketing is an ongoing process. The organization will not cease to exist once a campaign has been planned, tested, implemented and evaluated. After a campaign has been completed, the social marketer will not need to start from the beginning, but to find out from the target audience what they felt about the

Table 3.2: Social Marketing Framework for Describing Case Study Campaigns

	It All Adds Up to Cleaner Air Advertising materials promoting emissions-reducing behaviors and transit, produced by EPA/ DOT for local dissemination	Spare the Air SF Bay Area; Free transit on mornings when air quality is likely to exceed federal standards, plus promotion and media attention	CTA New Residents Program Chicago; Surveys & information packets with fare cards sent to people who have just moved to locations in/around Chicago
Guiding Principles			
Behavior Change Does the campaign adequately target and measure behavior change?			
Customer Focus Does the campaign do enough to see "through the eyes of the customer?"			
Action Framework Does the campaign take into account the Target Audience's original level of interest in the new behavior?			
Simple, Doable Changes How easy is it to change behavior (physically or conceptually)?			
Main Steps			
Identify Stakeholders Who else cares about this issue? Political bodies, non-profits, businesses could all be potential partners			
Define Target Audiences Who is the campaign trying to reach? What characteristics of these people make them good candidates for behavior change?			
Establish Campaign's Mission General reason for campaign, intended outcome			
Develop Behavior-Change Goals Specific behaviors that the target audience will have to adopt for the campaign to be successful			
Develop Belief- and Knowledge-Change Goals A different understanding of an issue that may make the behavior change more appealing			
Analyze Costs and Benefits Seen by Target Audience The barriers that the Target Audience sees to the new behavior must be somehow addressed for behavior to change			
Define new behavior in terms of "product" Core, actual, and augmented products help Target Audience see behavior change in terms of how it will benefit them			
Marketing mix—price, promotion, place How does the campaign design address barriers and get attention?			
Pretest Try out strategy on small scale before implementation			
Monitor and Evaluate Measure the success of the program			

Source: Framework by author

campaign, what could be improved, and whether their beliefs and knowledge have changed in addition to whatever behavior changes were measured as part of the campaign's evaluation. Perhaps the organization will want to expand the campaign to include new target audiences, which may share some things in common with the previous one, or may have a different set of needs for the old and new behavior. Both Andreasen and Kotler show social marketing as an ongoing spiral that continually loops back through the same steps, each time starting with more knowledge, more insight, and more of a chance for success.

So, I have a model: Table 3.2 summarizes the major points in the form of a chart, listing the guiding principles and the main steps of Social Marketing. In my next chapter this chart will be filled in gradually as I discuss each of the three case studies using this framework for my analysis.

4. Case Studies

In this chapter I present three case studies of campaigns that have used marketing techniques to get people to make smarter decisions about their transportation choices. The first case is a national campaign called "It All Adds Up to Cleaner Air" which uses advertising to promote environmentally friendly transportation practices. The second is a San Francisco Bay Area program called "Spare the Air" in which commuters in the Bay Area are encouraged to use the subway on high-ozone days. The final campaign is the Chicago Transit Authority's New Residents program, in which people moving to new homes in the Chicago area were sent informational and promotional materials about the bus and El.

The purpose of investigating these case studies is to make two major points. I would like to show that:

1. It is possible to have an impact on people's transportation choices using marketing and promotion and

2. Social Marketing techniques in particular are both applicable to campaigns involving transportation choices and capable of greatly improving the effectiveness of these campaigns

The campaigns in these cases are social marketing campaigns in the sense that they are attempting to change transportation behavior through advertising and promotion without making fundamental changes to the "real world" (such as through infrastructure or policy). Of these three, however, only the "It All Adds Up to Cleaner Air" campaign was planned based on any formal knowledge of the field of Social Marketing. Although I consider each campaign through the perspective of the principles of Social Marketing presented in the last chapter, it is not because I think they should necessarily have

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followed this model; my intention is not to pass judgment based on their adherence to it. Rather, I want to point out the many aspects of the campaigns that *can* be thought of in terms of the model, and find new places where the steps and principles of Social Marketing could, and perhaps should, be applied.

The general format of the case studies is a brief description of the campaign strategy, followed by a discussion of the planning process, the results, and an analysis. The planning process and results are primarily based on interviews with people involved in the campaigns and campaign reports provided to me by the organizations that run them. For the most part I describe the process of conducting research, planning, and implementing the campaigns in terms of the main steps described in the last chapter, although the campaigns do not always match the model on all points. In the analysis sections, I point out the strengths and weaknesses of the campaigns (as seen by either myself or by my interviewees) and discuss how the model might be relevant to each individual case study. In the next chapter, I will expand my analysis to draw from across the three case studies and make some broader conclusions about how the model might be used. To facilitate reading through these case studies, at the beginning of each I use the model in the chart form presented in the last chapter with an additional column filled in for each case study, in order to summarize the main points.

A note on the selection of my case studies: I had some difficulty finding campaigns where someone was able to talk to me, where there was enough of the process recorded, and that I felt fit my criteria—trying to use marketing techniques rather than changing things like infrastructure in order to produce behavior change—all within my timeframe. While there may be better cases for conducting this inquiry, I think that these

do a good job of showing the wide variety of campaigns that could be produced, while still having enough in common to allow for a comparison and show how the model might be applied.

Table 4.1: Framework: It All Adds Up to Cleaner Air

	It All Adds Up to Cleaner Air Advertising materials promoting emissions-reducing behaviors and transit, produced by EPA/ DOT for local dissemination	Spare the Air SF Bay Area; Free transit on mornings when air quality is likely to exceed federal standards, plus promotion and media attention	CTA New Residents Program Chicago; Surveys & information packets with fare cards sent to people who have just moved to locations in/around Chicago
Guiding Principles			
Behavior Change Does the campaign adequately target and measure behavior change?	No—behavior changes are very general, not measured, and not even expected before a 10-year horizon		
Customer Focus Does the campaign do enough to see "through the eyes of the customer?"	Focus groups provided insight to Target Audiences, but this insight was not successfully incorporated		
Action Framework Does the campaign take into account the Target Audience's original level of interest in the new behavior?	No—the campaign addresses awareness broadly despite differing levels of initial awareness		
Simple, Doable Changes How easy is it to change behavior (physically or conceptually)?	Messages range from specific and simple—"don't top off your tank"—to general & complex: "ride transit."		
Main Steps			
Identify Stakeholders Who else cares about this issue? Political bodies, non-profits, businesses could all be potential partners	EPA, FHWA, FTA, local MPO's and air quality districts throughout the country, drivers, citizens		
Define Target Audiences Who is the campaign trying to reach? What characteristics of these people make them good candidates for behavior change?	General driving public— particularly single occupancy drivers. Local communities may target more specifically.		
Establish Campaign's Mission General reason for campaign, intended outcome	Reduce air pollution caused by automobiles, help local communities run air quality campaigns		
Develop Behavior-Change Goals Specific behaviors that the target audience will have to adopt for the campaign to be successful	Combine multiple errands, keep cars well maintained, use alternative modes of transportation		
Develop Belief- and Knowledge-Change Goals A different understanding of an issue that may make the behavior change more appealing	Understand impacts of travel choices on the environment and quality of life; know that things like maintenance can make a difference		
Analyze Costs and Benefits Seen by Target Audience The barriers that the Target Audience sees to the new behavior must be somehow addressed for behavior to change	Plenty of data gathered on barriers, but not adequately addressed in final plan		
Define new behavior in terms of "product" Core, actual, and augmented products help Target Audience see behavior change in terms of how it will benefit them	Core product is better air quality and quality of life through reduced pollution and stress		
Marketing mix—price, promotion, place How does the campaign design address barriers and get attention?	Promotion includes simple tips for changing behavior. Place of decision making is from home or car		
Pretest Try out strategy on small scale before implementation	Focus groups to look at materials, pilot efforts		
Monitor and Evaluate Measure the success of the program	No measure by national team, some community partners may have performed evaluations		

Source: Analysis by author

It All Adds Up to Cleaner Air

The "It All Adds Up to Cleaner Air" campaign was conceived as a result of a study conducted in 1994 by the National Association of Regional Councils (NARC). States and metropolitan planning organizations had been asking for help from the federal government in order to meet air quality requirements from the Clean Air Act Amendments and the Inter-modal Surface Transportation Efficiency Act, which had dictated a variety of measures to control transportation related pollutants; if these requirements went unmet, local authorities risked losing much needed transportation funding. States knew it would be controversial to limit individual choice by mandating restrictions on travel, but hoped that a unified message about mobility and air quality would encourage people to voluntarily reduce their driving.[23]

NARC, with the help of the Transportation Research Board, conducted a review of transportation-related public information campaigns and determined that a national campaign was needed to bring some consistency and uniformity to the myriad messages being put out at a local level. They hoped that by developing and distributing materials at a national level, local organizations and authorities that had limited resources would not have to produce their own, and in using the national materials could have an impact on air pollution. In addition, members of NARC felt that the involvement of federal actors would lend credibility to local campaigns. In response to these demands, a team, which included the Environmental Protection Agency (EPA), the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), was formed to develop a national ad campaign.

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[23] "Personal and Public Strategies for Improving Air Quality: A Public Education Campaign" for NARC, 1995. p ii

Formative Research & Stakeholder Analysis

The research stage of the campaign started with a review of existing transportation advertising literature, but it was quickly determined that little information was available that indicated that significant changes in behavior had been spurred by increased awareness or concern about air quality problems. In addition, there was little information to be found about programs that linked transportation choices to quality of life factors such as stress and health.

Without much conclusive evidence upon which to base a new ad campaign, the team hired a social marketing firm and organized focus groups to begin to develop a plan. The firm, Equals Three Communications, was hired to help with the process of market segmentation, to identify a target audience, and to develop the campaign concept and messages. Equals Three started by looking at a previous market segmentation study done by the Roper Organization. Roper divided Americans into categories based on their interest in environmental issues, ranging from "True-Blue Greens," who are the leaders of the environmental movement and highly cognizant of the effects of their transportation choices on air quality, to the "Basic Browns" who are not involved in any environmental activities and do not feel the need to rationalize their actions with respect to environmental issues. The initial determination of the target audience was that it should be two of the groups in the middle of this spectrum: "Sprouts," who are beginning to accept environmental messages, but have not incorporated them into their daily lives, and "Greenback Greens" who would be willing to spend money for environmentally friendly products, but value their time too much to forgo their most convenient modes of

transportation. The target audience became "those who are most likely to change based on environmental reasons"[24]

The first set of focus groups was conducted by Equals Three in January of 1996, involving potential stakeholders who had an interest in seeing behavior change in their communities and who saw the potential for a campaign such as this. These included city and state governments, industry, non-profits, and metropolitan planning organizations and associations. Ideas that came from these focus groups included the need for differentiation at the local level and the need to focus on more than just commuting trips. Many of the stakeholders expressed the belief that the public does not fully understand air quality issues and that education is necessary for people to change. The stakeholders also emphasized a desire for a campaign that resulted in "early successes," that could be used as a prototype, and that could be pointed to when seeking funding for future programs.

The second set of focus groups took place in February of 1996, and comprised 38 participants from the target populations in Denver and Philadelphia. One of the interesting insights that came from these focus groups was that most people were not intrinsically against getting out of their cars, but felt that it was a solution for "those who have more routine schedules." Despite identifying financial incentives as a possible motivation for changing behavior, when presented with the "hidden costs" of driving they viewed this as the price of convenience. Although participants were fairly knowledgeable about the effects of transportation on air quality (especially in Denver), and although a number thought that air quality was responsible for the health problems of a friend or family member, few were willing to change their behavior to mitigate these concerns.

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[24] "It All Adds Up to Cleaner Air Resource Toolkit" developed by FHWA, EPA, and FTA. Tab M, p. 13

Strategic Planning

The next stage of the planning process was to determine the goals of the project and to identify behavior and belief changes that could be accepted by the target audience, based on the first round of focus groups. While the First Five Years Report (one of my primary sources, which outlines the history of the campaign) did not identify an official mission statement or list of specific objectives, a number of key insights were presented. The statement in the Report that comes closest to encapsulating a mission is:

> The long-term goal is to achieve sustained beneficial transportation behavior change by linking the cause and effect of transportation and air quality and by convincing people that they and their communities can make a difference through making simple changes.[25]

A secondary mission was to make the public information materials produced for this campaign easily available to community-level organizations, which could use the ads in conjunction with local initiatives.

At this point, the team identified a set of behavior changes and a belief change that they wanted the target audience to embrace. They presented the behavior changes in the form of three specific messages that were chosen because they were simple and easy to comprehend by the target audience: (1) the value of combining travel errands (called trip chaining); (2) the need to keep cars well maintained; and (3) the benefits of using alternative transportation modes.[26] The belief change that the team felt would encompass these messages was "My travel choices have an effect on air quality and congestion in my community, and ultimately on quality of life."

The team then took these messages to test on a new set of focus groups, held in June of 1997 in Dover, Delaware and Albany, New York. The first important finding of

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[25] "It All Adds Up to Cleaner Air" First Five Years Report, developed by FHWA, EPA, and FTA 2002. p. 11

[26] "It All Adds Up to Cleaner Air" First Five Years Report, 2002. p. 1

this round of focus groups was that the tone in which the messages was presented would be critical to how receptive the target audience would be. It was observed that although "many persons were willing to share responsibility for protecting the environment...they bristled at the suggestion that they should feel either personally guilty for its demise or responsible for its renewal."[27] Furthermore, they objected to the suggestion that they should have previously started thinking about the environment, when they felt that by using unleaded gasoline or recycling they were already helping to do their part for the environment. The belief change as it was presented was perceived as being made in an accusatory tone.

The second important result of the Dover and Albany focus groups was a decision to redefine the target audience. The focus groups revealed that even among people who were defined as "Sprouts" or "Green-Back Greens," environmental benefits did not seem to be enough of a convincing reason for people to change behavior. Particularly in Dover, environmental concerns were felt to be of lower priority than other issues that seemed more pressing in the area such as crime and economic development. Although they understood the role of transportation in air quality and recognized the potential problems in some parts of the country, none of the participants in the Dover study group felt that it was a problem in central Delaware. Based on these findings, the target audience was redefined to be "the general driving public" for whom other benefits of changing behavior would be more relevant.

Finally, in the Albany group, participants felt that none of the messages presented were particularly relevant to them—they felt that they were already trip-chaining, although not necessarily for air quality or congestion reasons, and thought that messages

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[27] "It All Adds Up to Cleaner Air Resource Toolkit" Tab M p. 14

about car maintenance were too generic to be given much attention, and might be perceived as coming from the automotive industry. They felt that public transit was not viable for most people and most trips, although carpooling was identified as potentially relevant.

With a new target audience and insights into a concern for the tone of the ads in mind, the team developed three possible themes for delivering their message, and in November of 1997, brought these to a new set of focus groups in Milwaukee. One of the three creative approaches was a series of humorous ads that used an animated character to deliver the messages; a second approach focused on the idea of a stressful lifestyle in which cars played a part. The approach that resonated most with this focus group became known as the "Anthem" approach; it congratulated people who were already doing what they could to support the environment, and encouraged them and others to jump on the bandwagon towards more sustainable transportation choices (Figure 4.1). With this campaign they tried to avoid the accusatory tone that previous focus groups had been bothered by. Focus groups also agreed that the most credible presenter of the ideas in this campaign would be a coalition that included consumer, advocacy, and governmental groups.

Implementation and Evaluation

For campaigns as large as this one, the first stage of implementation is much like a continuation of the pretesting. At this point in 1997, enough messages had been tested in focus groups that the team felt confident moving forward, but before distributing the materials across the country, they chose three cities in which to do a pilot phase: San Francisco, Milwaukee, and Dover. These pilot cities were expected not only to use the

Figure 4.1: It All Adds Up to Cleaner Air Example Messages; similar print ads were developed in sizes for magazines, newspapers, postcards, billboards, and buses.

Alternate Choice/Ride Share" Ad Size 6.5 x 10

Try picking someone up before you go out.

Share a ride with a friend. It's nice to have a co-pilot, plus you'll save money and the air. Ride sharing is a great way to make driving more enjoyable, whether you're going out on the town or going to work. You'll save money, too. Sharing a ride with just one other person can cut your commute costs in half. And if all drivers doubled up, it would cut traffic congestion and pollution substantially. That could eliminate millions of pounds of pollutants from the air each year. So keep it up because—

It all adds up to cleaner air

U.S. Department of Transportation   Your Logo Here   EPA

Alternate Choice/Bus Ad Size 6.5 x 10

If you're not part of the problem, You're part of the solution.

Don't get stuck in a jam. Call first and get around smarter and faster. Want to save yourself a lot of time, stress and aggravation? How about helping to reduce traffic congestion and pollution at the same time? Then call us first or visit our web site for free, up-to-the-minute, route-specific traffic and transit information. Because getting travel and transit information before you leave home or the office is smart for you and the environment. So keep it up because—

It all adds up to cleaner air

U.S. Department of Transportation   Your Logo Here   EPA

Alternate Choice/Mass Transit" Ad Size 6.5 x 10

You'd have more time on your hands if they weren't on the wheel.

Take mass transit. You could save money, the air and a little time for yourself. People are finding out why taking mass transit makes more sense than driving. Instead of fighting traffic, you have time to relax, read or even just daydream. You could save money, too. (The average driver spends about 44 cents per mile including ownership and maintenance.) Plus, you help to reduce traffic congestion and pollution. Which means that you're actually saving a lot more than just time. So keep it up because—

It all adds up to cleaner air

U.S. Department of Transportation   Your Logo Here   EPA

Alternate Choice/Bus-2" Ad Size 6.5 x 10

You should be reading this on the bus.

You'd save money and the air, plus have time to read more than the Sports page. More and more people are finding out why taking the bus makes more sense than driving. Instead of fighting traffic, you can sit back, relax and read the paper or a good book. You could save money, too. All told, the average driver spends about 44 cents per mile including ownership and maintenance. Plus, you'll help to reduce traffic congestion and air pollution, which actually makes bus fare a contribution towards a better environment. So keep it up because—

It all adds up to cleaner air

U.S. Department of Transportation   Your Logo Here   EPA

Source: It All Adds Up to Cleaner Air Download Center; www.italladdsup.gov. Accessed April 24, 2005

materials provided by the EPA/DOT team, but also to team up with local organizations to tailor the message to the local community; each were given a grant of $25,000. An important part of this pilot phase was a comprehensive evaluation that tracked the use of media, the community level activities, and their impacts on the public, in order to make improvements before the 1999 demonstration phase was to be launched.

Part of the evaluation of this campaign tested how well people who had been exposed to the campaign were able to recall the messages, and found that recall of the messages and specific ads had increased significantly, but the tagline, "It All Adds Up to Cleaner Air" was not remembered by most. The results of the study did not suggest that any significant behavior change had taken place, but the research analysis conducted by Equals Three explains that "it was initially anticipated that the complex nature of changing travel patterns would require 1-4 years;"[28] and the EPA/DOT report states that a campaign such as this could "require a commitment of a decade or more...to effect real behavior change"[29] The evaluation of the programs also looked at use of the grant money, which was used by some of the communities to purchase advertising space in publications and on television; because it was a public service campaign, often the $25,000 grant was leveraged to several times its worth in advertising space.

Analysis

The organizers of this campaign did an excellent job in terms of their research. Throughout the research and planning phases, they continually went back to focus groups to test the credibility and effectiveness of their messages, and were eager and willing to make changes such as shifting the target audience to include all members of the driving

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[28] "It All Adds Up to Cleaner Air Resource Toolkit" Tab M p. 22
[29] "It All Adds Up to Cleaner Air" First Five Years Report, 2002. p. 3

public, and getting rid of messages that were interpreted as potentially being accusatory or that seemed like they were trying to use guilt to bring about change, which focus groups thought were more likely to make people tune out these ads rather than embrace the ideas.

On the other hand, there were many cues from the focus groups that did not seem to be adequately incorporated into the final materials. For example, participants stressed that the environment was not going to be a convincing factor in eliciting a behavior change, even for people who seemed to value the environment and had participated in other pro-environment activities. Nevertheless, in many of the campaign materials, the benefits to the environment were featured prominently and often cited as the primary reason for making a behavior change.

But perhaps the reason that these ideas were not fully incorporated is part of what social marketers would consider to be the campaign's major shortcoming: while the process was fairly sound and it follows most of the steps outlined in the last chapter, it does not address one of the most fundamental aspects of a Social Marketing campaign: it does not target or measure behavior change. This was not done by mistake or oversight, but deliberately. The First Five Years Report cites an assumption that it takes about ten years from the commencement of a public service campaign until a time when behavior change can be measured. This assumption seems to be based on campaigns such as recycling and littering that were started in the 60s, when virtually nobody had given thought to these and other environmental issues before. Awareness at the beginnings of these campaigns was virtually zero, and target audiences were not even in the pre-contemplation stage. As the issue was introduced, and awareness was raised, and as

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recycling collection programs and fines for littering started to emerge, it began to be feasible to run campaigns that actually asked for behavior change.

In the case of "It All Adds Up to Cleaner Air," however, the comparison to a recycling campaign starting with zero awareness does not make sense. By 1995 when the campaign started, most people knew that automobiles emit unhealthy pollutants, even if they felt that their own transportation choices did not make a big difference or if they did not think of air quality as being a big problem in their communities. To assume that there was little awareness about the impacts of driving and that this lack of awareness was cause for a lag in behavior change is not reasonable. Besides, it is not clear that making people more aware of the environmental impacts of the behavior changes their pattern of driving: as I mentioned earlier, there are hundreds of thousands of teenagers in the US today who are perfectly aware of the long term effects of cigarettes on their health, and yet continue to smoke. In the case of automobile pollution, the negative effects on the target audience are even more vague and much farther into the future; unlike smoking they depend on everyone reducing their automobile use, not just the person who is concerned for themselves. For something as difficult to do as reduce driving, just making people aware of the potential environmental risks may not be enough; people need to know that there is a change *they are capable of making*.

Interestingly, in the very first round of focus groups the EPA/DOT team changed their target group from "people who are likely to consider environmental factors in their transportation choices" to "the general driving public" because they had determined that the first group may not actually have been any more likely to change. Having done this, and with rich information from their focus groups on the things that might realistically

change behavior, they had many clues that they should steer away from the environmental message altogether. If they had followed these clues and chosen to make the ads focus explicitly on things like costs savings and stress reduction, perhaps they would have been able to conduct a campaign in which they could have expected to see behavior change sooner.

The Social Marketing literature discusses the necessity and usefulness of dividing the target audience into very specific groups of people with similar behaviors, barriers, and interests, in order to produce a personalized message that will resonate with this audience. One of the major challenges faced in the "It All Adds Up to Cleaner Air" campaign was that it was intended as a national campaign, and therefore needed to include broad themes that would be applicable across the country—in different climates and in rural, urban, and suburban areas. Generic messages run the risk of being ignored if they seem irrelevant; the focus group conducted in Dover emphasized that people were unlikely to pay attention to a message about using public transportation since they felt that there were no reasonable transit options available to them. Because the organizers of this campaign are aware of the shortcomings of having to have such general messages, in their communications with community partners they stress that individual communities should try to make sure that their messages resonate with people at the local level, by adding information about the local transit system or carpool matching services.

Because of the potentially broad applicability of the materials provided in this campaign, it would be difficult to argue that the money for the campaign would have been better spent on more focused, smaller campaigns. Many communities, who would otherwise not have had enough resources to develop any campaign at all, are able with

this program to use the materials of the "It All Adds Up" campaign for free, only having to shoulder the costs of media placement. Although these ads do not necessarily produce behavior changes, they also do not seem to produce any negative reactions (as more accusatory or guilt-inducing campaigns may have), and they have been shown to build awareness, which was stated as a goal of the campaign. Within the field of social marketing, as with almost any organization, the funding source has some control over what goes on, and although this team may have been able to spend its funds in another way to produce more behavior change, given their charge to produce a national campaign it was reasonable to limit the amount of market segmentation and personalization.

However, although they could not do too fine-grained a segmentation along demographic, geographic, or psychographic lines, this program could have been built on some distinctions between the different stages of the target audience in the behavior change process. They did understand that people in San Francisco were already more aware than people in Dover and Milwaukee. Their assessment that a campaign would "require a commitment of a decade or more...to effect real behavior change"[30] implies that the level of awareness of most people in the United States is such that they need to be made more aware of the issues before they will make a change (an assumption that I have already argued against, but let's stick with their logic for a minute)—but if people in some locations tend to be more aware than others, it does not make sense to address them all in the same way. This campaign would have been strengthened if the pilot cities had tested campaigns that addressed different stages in the behavior change process—San Francisco or some other environmentally friendly city might have tested campaigns intended to bring people from the contemplation into the action phase, while the current

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[30] "It All Adds Up to Cleaner Air" First Five Years Report, 2002. p. 3

campaign, which works on the pre-contemplation phase, could have been administered in places like Dover where awareness may not yet be as high.

Addressing the issues of transportation behavior at a national level, rather than more locally had important implications for the ability of the campaign to be useful. Part of the desire for a national campaign came from a conclusion in the NARC report that many community level campaigns were not taken seriously because the quality of the materials was poor and the sponsoring organizations did not always have great clout. Kathy Daniel, one of the organizers of the campaign from the FHWA, explains that one of the major strengths of this campaign was the high quality of the materials that were produced; she explains that this helped greatly in ad placement because when choosing between many different public service advertisements, television stations and newspapers prefer to use the ones that look most professional. In addition, the fact that the EPA and DOT logos were displayed in the ads made them seem more credible according to surveys and focus groups, and showed people that transportation was an important issue that was being considered even on a national level.

Unfortunately, the fact that it was a national campaign also made it difficult to conduct adequate market segmentation and to produce advertisements that were relevant within individual communities. Another setback to the organization of this campaign was that the people producing the ads were separate from those running them, making it logistically difficult to test whether people were making behavior changes and whether awareness was built as a result of the ads. Finally, the fact that behavior change was not even expected to occur as a part of this campaign suggests that this attempt to build

awareness may not have been the most effective tactic for helping states and metropolitan

planning organizations reduce transportation related air quality problems.

Table 4.2: Framework: Free Transit on Spare the Air Days

	It All Adds Up to Cleaner Air Advertising materials promoting emissions-reducing behaviors and transit, produced by EPA/ DOT for local dissemination	Spare the Air SF Bay Area; Free transit on mornings when air quality is likely to exceed federal standards, plus promotion and media attention	CTA New Residents Program Chicago; Surveys & information packets with fare cards sent to people who have just moved to locations in/around Chicago
Guiding Principles			
Behavior Change Does the campaign adequately target and measure behavior change?	No—behavior changes are very general, not measured, and not even expected before a 10-year horizon	Yes—very specific behavior change (ride BART certain days in the summer), and carefully measured	
Customer Focus Does the campaign do enough to see "through the eyes of the customer?"	Focus groups provided insight to Target Audiences, but this insight was not successfully incorporated	No formative customer research although product is customer-focused	
Action Framework Does the campaign take into account the Target Audience's original level of interest in the new behavior?	No—the campaign addresses awareness broadly despite differing levels of initial awareness	Yes—people are already aware of Spare the Air days and free BART trips help perform the behavior	
Simple, Doable Changes How easy is it to change behavior (physically or conceptually)?	Messages range from specific and simple—"don't top off your tank"—to general & complex: "ride transit."	Very simple and straightforward.	

Main Steps			
Identify Stakeholders Who else cares about this issue? Political bodies, non-profits, businesses could all be potential partners	EPA, FHWA, FTA, local MPO's and air quality districts throughout the country, drivers, citizens	MTC, BAAQMD, BART, local employers, Bay Area transit organizations, drivers, citizens	
Define Target Audiences Who is the campaign trying to reach? What characteristics of these people make them good candidates for behavior change?	General driving public—particularly single occupancy drivers. Local communities may target more specifically.	Bay Area commuters who generally drive alone but for whom riding BART is feasible.	
Establish Campaign's Mission General reason for campaign, intended outcome	Reduce air pollution caused by automobiles, help local communities run air quality campaigns	Keep the San Francisco Bay Area under the 8-hour ozone standard for 2004	
Develop Behavior-Change Goals Specific behaviors that the target audience will have to adopt for the campaign to be successful	Combine multiple errands, keep cars well maintained, use alternative modes of transportation	Ride BART instead of driving to work on summer "Spare the Air" days (when SF is likely to not be in attainment)	
Develop Belief- and Knowledge-Change Goals A different understanding of an issue that may make the behavior change more appealing	Understand impacts of travel choices on the environment and quality of life; know that things like maintenance can make a difference	Increase understanding of the importance of "Spare the Air" days	
Analyze Costs and Benefits Seen by Target Audience The barriers that the Target Audience sees to the new behavior must be somehow addressed for behavior to change	Plenty of data gathered on barriers, but not adequately addressed in final plan	Not specifically researched but free trip addresses monetary cost issue	
Define new behavior in terms of "product" Core, actual, and augmented products help Target Audience see behavior change in terms of how it will benefit them	Core product is better air quality and quality of life through reduced pollution and stress	Augmented product is free ticket, core benefit is feeling like a part of the greater effort to spare the air	
Marketing mix—price, promotion, place How does the campaign design address barriers and get attention?	Promotion includes simple tips for changing behavior. Place of decision making is from home or car	Reduced price through free ticket, promotion includes lots of print and live ads plus media attention	
Pretest Try out strategy on small scale before implementation	Focus groups to look at materials, pilot efforts	Not done	
Monitor and Evaluate Measure the success of the program	No measure by national team, some community partners may have performed evaluations	Passenger counts on BART on Spare the Air days, surveys of awareness of Spare the Air days	

Source: Analysis by author

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Free Transit on Spare the Air Days

The Bay Area Air Quality Management District (Air District) has been running a campaign called "Spare the Air" since 1991, and in 2004 piloted a new program: Free Transit on Spare the Air Days. With federal funding and help from Bay Area Rapid Transit (BART) and the Metropolitan Transportation Commission, the Air District was able to provide a free morning commute on BART on certain days in the summer when air pollution is likely to exceed federal standards.

The Air District is responsible for monitoring and regulating pollution in the nine counties that surround the San Francisco Bay. In 1955, when it was first created by the California legislature the Air District was concerned primarily with regulating stationary sources of pollution such as industry and agricultural open burning. Over the years as motor vehicles grew to be the leading source of air pollution in the Bay Area, the Air District directed its attention to mobile sources; with some 120 million miles being driven every day, cars can produce about 420 tons of smog-forming pollutants on an average summer day.[31] Not only are these pollution levels detrimental to public health and the environment, but on particularly warm and stagnant days, pollution from these sources causes the region to go over federal standards.[32] If these standards are unmet, Bay Area transportation projects can lose billions of dollars in federal funding.

The "Spare the Air" campaign was created to encourage voluntary reduction of driving on these high ozone days in order to spare the air, promote public health, and preserve federal funding. This campaign involved advertising, radio spots, and media

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[31] Lee and Salaver, *If It's Free, Will They Ride?* 2005 p. 3;

[32] Before 2004, the Bay Area had not been meeting the federal "8-hour ozone standard," which is based on averaging air quality measurements over 8-hour blocks of time. EPA uses the average of the 4 highest 8-hour concentrations from each of the last three years of air quality monitoring data to determine a violation of the ozone standard. http://www.epa.gov/ozonedesignations/ Accessed March 27, 2005

coverage reminding Bay Area residents that there were greater problems with air pollution during the summer months, and that on "Spare the Air" days it was especially important to cut back on driving in order to help the district meet federal requirements.

In 2004, the Air District paired up with the Metropolitan Transportation Commission (MTC) to add a new piece to the Spare the Air campaign: the provision of free rides on BART, the region's major commuter rail system. The MTC is the main transportation planning, coordinating, and financing agency in the Bay Area, created by the California legislature in 1970. It serves as the region's metropolitan planning organization and, as such, acts as an intermediary between local transportation agencies and federal transportation funding. It therefore has a particular interest in keeping the Bay Area within federal air quality regulations. The MTC was able to allocate $2 million in federal funding for a pilot program that would combat air pollution on high ozone days, which they used to pay for a free transit component to the Air District's existing Spare the Air campaign.

Formative Research & Stakeholder Analysis

Bringing together different stakeholders was a big part of this campaign. The MTC and the Air District had a common interest in reducing air pollution for public health, environmental, and funding reasons. Another major set of stakeholders that the Air District identified was transit agencies in the Bay Area since any push to reduce emissions from single occupancy vehicles was likely to impact ridership. Because BART has the most riders in the most counties of any Bay Area transit agency (there are 26 agencies altogether in the 9 county region!), it was chosen for the 2004 pilot project. Another set of stakeholders was private employers, who first introduced the idea of

offering free transit decades ago. Employers have an interest in their employees' commutes for a number of reasons; first of all, they want employees to be timely and arrive at work relaxed rather than stressed from their commutes. Also, employees demand more parking than employers are able to provide. Some employers are also interested in reducing air pollution because they want to be seen as good neighbors in their communities. Moreover, with increased levels of air pollution, there is a greater likelihood of absenteeism as employees or their children get sick. For these reasons, employers have often pushed for better alternative transportation options and have helped the Air District distribute information about Spare the Air days to their employees.

Independently of the Spare the Air campaign, the Air District has worked on other air quality campaigns with for-profit partners. Although the Air District had tried for years to promote the environment as a reason to change behavior, they learned from these partnerships that people were much more interested and willing to consider arguments about things like tax benefits and wear and tear on their cars. Another thing that they were sensitive to was that it is much more difficult to ask someone to change their behavior for 365 days a year than for just a handful; they thought that by asking for "baby steps"—minor changes in behavior—they might see more results.

In order to incorporate this knowledge into their marketing campaign, the Air District had to more carefully define the target audience. Rather than conducting new research for this campaign, they used previously existing studies by other organizations. One of the major sources of local information about the potential target audience was RIDES for Bay Area Commuters, a non-profit organization that is under contract with the MTC to help promote alternative forms of transportation. RIDES conducts an annual

survey and study that analyzes commute and transportation patterns in all nine of the Bay Area counties. In the 2003 study, they found that for the entire area 63% of commuters drove alone, while 18% carpooled or rideshared and 13% took public transportation.[33] In addition, they found that of the drive-alone commuters, the largest segment was male drivers between the ages of 18 and 54. The study examined the reasons people give for choosing different modes, and their perceptions about how their commute compared to earlier years. Because the survey consisted of 3,600 respondents, it also has very specific data about how travel patterns break down for each of the nine counties.

Strategic Planning

The mission statement of the Air District is "The Bay Area Air Quality Management District is committed to achieving clean air to protect the public's health and the environment in the San Francisco Bay region"—a sort of general mission that has applied to many projects and promotions in its 50 year history.[34] For the Spare the Air/free BART promotion, the Air District and the MTC had a much more specific objective in mind: to keep the nine counties that make up the Bay Area under the federal air quality requirements for the summer of 2004. On average, there are 6 days each summer during which weather conditions are such that, with normal commuting behavior, the Bay Area will not be in attainment for the 8-hour ozone standards; on these days something needed to be done to get drivers out of their single occupancy vehicles. Knowing that it is hard to get people to change behavior just for environmental reasons, the MTC and the Air District decided to provide the incentive of having BART be free on these Spare the Air days. Because of budgetary restrictions, they would only be able to

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[33] *Commute Profile 2003: A Survey of San Francisco Bay Area Commute Patterns.* Developed by RIDES Associates, 2004.

[34] Bay Area Air Quality Management District website. http://www.baaqmd.gov/. Accessed March 28, 2005

provide free BART on the first five Spare the Air days each year, and only for one of the commutes. They chose the morning commute, since this is when pollution released from tailpipes is more likely to blow eastward and settle in the sheltered valleys. Of course, probably most people who took BART to work in the morning when it was free also used it to get home since they did not have their cars with them.

A more detailed set of goals was defined as follows:

- Reduce the probability of unhealthy air quality during the 2004 Spare the Air season while increasing the probability that the Bay Area would attain the federal 8-hour ozone standard;
- Increase public awareness and knowledge about the links between air quality and commute choices;
- Build BART ridership;
- Provide a positive experience to both current and new BART riders;
- Generate extensive media coverage and positive goodwill for the three partners

The target audience was defined as Bay Area commuters, especially males, who travel within the BART corridor (Alameda, Contra Costa, San Francisco, and San Mateo counties), including both working individuals and students.

Of the four Ps—product, price, placement, and promotion—the first three were set by the strategy. The product was a free trip on BART during the morning commute; placement of this product was predefined by the existing BART stations, and price of the product was zero for the one-way trip, although individual commuters would experience the various non-monetary costs of changing their travel patterns for that day. Promotion was the variable over which the Air District, BART, and the MTC had the most control.

Before the addition of the BART Free Morning Commute promotion, the Spare the Air campaign was already a promotional campaign encouraging people to choose alternative modes of transportation on high ozone days. With the help of an ad agency

they had assembled a multitude of promotional materials which could be used again in 2004. These included pamphlets, brochures, postcards, television and radio spots, billboards, electronic signage at sports events, fact sheets, a website and email alerts, items such as coasters and bags, and a giant banner hung across the Bay Bridge between Oakland and San Francisco. All printed materials had the logos of the three partners and the words "FREE morning commute on BART on Spare the Air days."

These ads covered a range of styles, from the television ads which were humorous "reality-TV" style ads depicting families and their transportation choices, to informative brochures that explained how to join a vanpool or find out about public transportation. Radio and television channels were selected based on the demographics of the listeners in comparison to research done by RIDES and by the advertising firm. Brochures and promotional items were distributed by employees of the Air District at community events such as concerts and festivals. Additional brochures, postcards, and pamphlets were distributed to employers who had expressed to the Air District interest in being recipients.

Because the nature of Spare the Air days is that they cannot be predicted well in advance (usually a day will not be designated as "high ozone" before 1:00 PM the day prior), one of the most important methods of promotion was to use email alerts. People could sign up for these on the Spare the Air website or at the community events attended by the Air District, and they would get an announcement in their email (or to their pager or cell phone as a text message) as soon as a Spare the Air day was declared—about 15,000 had signed up before the 2004 Spare the Air season. In addition to sending email announcements to these individuals, 2,200 employers receive the announcements and forward them to employees. Because Spare the Air days are sporadic events rather than

"business as usual," they are also able to get media coverage in local newspapers and on television and radio news spots, which provides a much broader reach than would be covered by the Air District's promotional budget: by faxing a press release to 160 media outlets, the story could reach some 2 million people very quickly.

For 2004, in addition to the regular promotional material that had been used for the Spare the Air campaign in previous years, specific promotional materials were developed to highlight the free BART morning service. For example, the banner above the Bay Bridge read "Spare the Air; Ride BART" and postcards (Figure 4.3) describing the program were distributed liberally. While BART did not contribute financially to the program—the MTC $2 million grant paid BART the full cost of providing free trips (as would any commercial agency doing a promotion on BART)—BART contributed to the marketing effort by providing staff time and media outlets to help get out the word about free BART days. And once again, there was substantial news coverage letting riders and potential riders know about the event.

The most straightforward method of measurement for assessing the success of the campaign would be to estimate the number of additional passengers on BART on Spare the Air days. Measurement would include actual passenger counts during the morning at the West Oakland station (where all 4 train lines pass), exit counts on Spare the Air afternoons compared with exit counts on other days, and hourly station ridership estimates by station. These measurements of course only show the additional ridership, rather than the number of people who did not take their cars on these days because of the program—meaning that the numbers may include people switching to BART from biking

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Figure 4.2: Postcard advertising free BART on Spare the Air Days

This Summer, Drive Less, Save Money and Spare the Air!

FREE Morning Commute on BART

4 AM to 9 AM On the **FIRST FIVE** Spare the Air **WEEKDAYS***

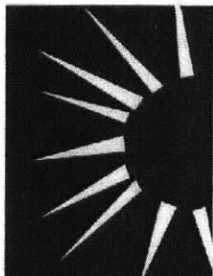(when officially declared by Bay Area Air Quality Management District)

SPARE
the AIR

Register for email,
text messaging or pager AirAlerts
for advanced notification of Spare the Air days,
and a chance to win great prizes at **www.sparetheair.org**

Help Spread the Word – Give this Card to a Friend!

Courtesy of

METROPOLITAN
TRANSPORTATION
COMMISSION

BART
ba

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Plan a Carfree Trip! Use the 511.org Take Transit Trip Planner or visit bart.gov

SPARE
the AIR

Spare the Air Promotion 2004
Bay Area Air Quality Management District
939 Ellis Street, San Francisco, CA 94109

FREE Morning Commute on BART

Source: Luna Salaver, Bay Area Air Quality Management District

or walking, or who would not have normally made a trip at all—but it would have been substantially more difficult to measure the change in number of cars on the road, or to

survey everyone on BART to see what their normal mode was, so this served as an approximate indicator.

Since the high-ozone days could not be predicted, BART staff needed to be prepared for a jump in ridership at less than a day's notice; personnel that would be affected were train operators, BART police, cleaning staff, and station agents. BART operations needed to be prepared to add additional train cars if necessary. Also, the AIR District created a communication strategy including a seven-day roster of staff to make sure all the necessary partners were contacted as soon as a Spare the Air/Bart Free Morning Commute day was declared.

Implementation & Evaluation

There was no pretesting of this promotion. Because this was the pilot year of a multi-year program, the implementation was in some sense a pretest in itself. Implementing the program meant putting out ads and promotional materials all summer; while the MTC paid for the actual BART trips, the Air District spent $220,000 on promotional materials, which were supplemented by BART's media, marketing, and research departments. The Spare the Air season starts every June 1st, and the campaign start date was June 21, 2004, with a press conference and rollout on June 16. The rollout was well attended by the media and the value of the media coverage was estimated to be $34,335, reaching 2.6 million people. The rollout was sponsored by all three agencies— BART, MTC, and the Air District—and was a historical event for BART because it featured the very first wrapped BART train, bright blue with the Spare the Air logo and the words, "Spare the Air—Ride BART."

Once the promotional materials were out, the Air District had to wait for a high ozone day to come along before implementing the second part of the program. Although the average is 6 such days a summer, the summer of 2004 was abnormally cool and the only Spare the Air days were on September 7th and 8th, a Tuesday and Wednesday. Over these two days, there was an 8.2 percent increase in ridership on BART! The three methods of measurement were consistent in reporting approximately 40,000 additional riders. Furthermore, no federal 8-hour ozone standards were violated in 2004, thus meeting the stated objective of the promotion. Because funding had been allocated for up to 5 free morning commutes, the season left MTC with funding to spare.

In addition to boosting ridership on Spare the Air days, the summer-long promotion resulted in an increase in the number of people registered for emailed air alerts, from 14,817 in June to 22,370 in October; a jump of 66%. Also, there were fewer than ten complaints to the toll-free number and Spare the Air email-box, and these mostly asked why the promotion only provided free transit in the morning.

According to Luna Salaver, Public Information Officer at the Bay Area Air Quality Management District, plans are well underway for 2005. The program will be expanded to include free morning transit not just on BART, but with all 26 transit providers in the region. As with BART in 2004, none of the transit agencies will be contributing funds or donating trips, but the MTC will use federal funding to pay the full costs of providing the service. In addition, the Air District is currently trying to secure funding for a Spare the Air drill: on May 25th, there will be a practice run during which

all morning transit will be free and people can prepare and try out the transit system in order to be ready when a real Spare the Air day comes along.[35]

Analysis

By establishing a very specific and measurable objective for the Spare the Air free transit pilot, the Air District and the MTC were able to declare the program a success when the 2004 year passed without the Bay Area exceeding federal ozone limits. While they could have set their goal in terms of the number of riders or percent increase in riders they hoped would take BART on Spare the Air days, the approach they took is convincing because there was something much more tangible riding on the results than improved air quality: several billion dollars in federal funding for the next year's transportation projects.

Indeed, one might still argue that if the mission of the Air District is to improve air quality, there might be other ways to spend the $2 million put forth by the MTC, ways that could have done a better job of reducing pollution overall, with or without meeting the federal standards; for actual air quality purposes, one or two days over the federal government threshold might not be so bad if the average for the whole year were lower. Nevertheless, for practical purposes the most valuable thing for the Bay Area in the short term may be to maintain federal funding for transportation projects, without which pollution would undoubtedly get much worse. And hopefully, getting people to try BART on a Spare the Air day might make them more willing to ride BART in other circumstances.

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[35] Salaver, Luna. Public Information Officer, BAAQMD, interview March 22, 2005

Although this campaign was successful in terms of its stated objectives, there were many aspects of the planning process that could have been improved. There could have been more research into the needs and concerns of the target audiences; what if more people would have liked to use a local transit system rather than BART? or what if employers were encouraged to ask their employees to telecommute on Spare the Air days? This is pure speculation, but it seems that more formative and pretest research could have been done to assess whether this was actually the best way to meet the needs of the most people.

The Air District and MTC also could have conducted better research in the evaluative stage. While they did a thorough job of measuring the number of additional riders, more information about these riders could have been useful: where were they going to or coming from? Had they ever used BART before? What were their feelings about the Spare the Air program? What was the cost of their normal commute? Questions like these would not have had an effect on evaluating the 2004 program, but might have allowed future campaigns to target these people, and people like them, more specifically. Of course, doing such a survey is not trivial; it would have required significant extra preparation and additional cost to administer. In fact, there had been a plan to hand out one of the Spare the Air campaign flyers (Figure 4.3) on the free commute days that included information about the costs of driving and the benefits of transit—however, with only 12 hours notice it was too difficult to arrange for people to hand them out, in part because both the Air District and BART are unionized and asking employees to leaflet (or to administer surveys) is not in their contract.

One thing that would have been particularly interesting to analyze, had surveys been conducted of Spare the Air day riders, is the level of cost savings for people who chose to ride BART when it was free; for many commutes in the Bay Area, paying the full cost on BART is already less expensive than paying bridge tolls, gas costs, and parking fees. For example, a commuter traveling from Alameda County to downtown San Francisco would pay about $2 in gas round trip, $3 for the Bay Bridge toll, plus over $10 for parking—a total of over $15—while BART only costs $6 round trip. If saving money and the knowledge that it was a Spare the Air day were reasons enough to ride BART on those days, then many would have probably ridden even without the added

Figure 4.3: Costs of Driving Fact Sheet: distributed as part of the Spare the Air campaign

THE HIDDEN COSTS OF DRIVING

Driving Takes Its Toll

Fact When you factor in parking, bridge tolls, wear and tear, repairs and maintenance and the highest gas prices in the US, driving to work can cost $20-$40 a day. *You can improve your car's resale value by as much as $2,000 a year by giving your car a rest and commuting on BART instead.*
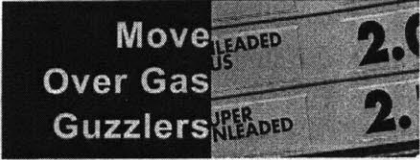
Stress Free

Fact The average Bay Area commuter wastes **42 hours a year just sitting in traffic.** *On BART, commuters sleep, read, or just unwind from a long day and arrive at their destination refreshed and on time.*

Save The Planet

Fact A typical drive to work generates 5 tons of pollutants a year. *Auto pollution is a major contributor towards global warming, smog, asthma, cancer and other pollution related problems.*

Move Over Gas Guzzlers

Fact BART riders get the equivalent of 244 miles per gallon on BART. *That's about 10 times the fuel economy of a typical car. And you thought the Hybrids got good mileage?*

Source: Luna Salaver, Bay Area Air Quality Management District

incentive of a free morning trip. At the same time, announcing that BART would be free did a number of other things: it made the Spare the Air campaign media-worthy, garnering much more public attention than just advertisements could. It showed the public how committed the Air District and the MTC were to the cause by saying "this is how badly we want you out of your cars" and showed that a sacrifice was being made for commuters. Also, "free" is a simple concept with clearly positive connotations, much easier to understand than trying to have people compare their normal commuting costs to riding BART. It is unquestionable that making BART free had a huge impact on the willingness of people to ride, but it would be interesting to see how much this had to do with actual cost savings, and how much may have had more to do with the symbolism of the gesture. It also would be useful to know to what extent non-commuters took the free ride, or people who normally use a transportation mode other than driving.

Furthermore, it is interesting to note that of the millions of dollars that had been allocated for the free BART days, only a fraction of this was spent on new riders: there was an 8 percent jump in ridership, which is huge (approximately 40,000 additional riders), but this still means that 92 percent of the days' riders—some 500,000 people— would have ridden at the cost they normally pay.[36] This suggests asking whether the money could have been spent more precisely on drive-alone commuters. With a program of giving away free trips, it would not seem fair to reward just the people that usually drive—the people who ride BART every day are making a much larger contribution to air quality in the region. If money were being spent in a different way than free rides,

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[36] Monthly passes are not available on BART since fares are based on mileage; if they were, the marginal cost to riders carrying monthly passes would be zero so the free trip would not make a difference for them.

probably more of it would have been spent on non-users. I am not sure that there is a good way to address this issue, but it is a question worth asking.

A slightly different twist on the research that could have been done on new riders on Spare the Air days would have been to assess what these first time and incidental riders thought about their trip. Possible questions that could be addressed include whether new riders had a positive experience, what might have been improved, and what, if anything, were the benefits that they had enjoyed in addition to the free trip—for example, had they chosen to ride because of the cost savings, but discovered that they enjoyed being able to read on the train? And if people took BART on more than one Spare the Air day, did they notice anything different the second time? Maybe it was easier and felt more comfortable once they knew what to expect. Getting someone to ride transit for the first time can be quite difficult, but people who have ridden before, provided they did not have a decidedly negative experience, are more likely to be willing to ride again. With this type of information about what people liked and didn't like, next year's ads—or ads outside of the Spare the Air season—could be constructed to remind people of any positive memories they had from their BART trip.

From the beginning of this campaign, the Air District and the MTC were wary of asking people to make too large a change; according to Randy Rentschler of MTC, "Getting people to change their behavior every day isn't likely. But asking people to change their behavior once in a while for a specific purpose is easier to sell."[37] A one or two time behavior change is all that may be necessary in order to preserve federal funding, but the MTC and the Air District are both interested in reducing every day

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[37] Cabanatuan , Michael "Free days on all transit if pollution plan Okd" *The San Francisco Chronicle.*
February 16, 2005

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automobile use as well. This campaign may have great potential to serve as a leveraging point for getting more frequent behavior change. Somebody who changes their behavior once for a specific purpose may be more likely to do so again, because having ridden once indicates that they are additional people for whom BART is not completely inconvenient. In the future, the MTC and the Air District may be able to use the great success of the Spare the Air/BART Free Morning Commute promotion to tap into a set of people who may be able to be convinced to make this behavior change more frequently or even permanently.

Table 4.3: Framework: Chicago New Residents Direct Mail Program

	It All Adds Up to Cleaner Air Advertising materials promoting emissions-reducing behaviors and transit, produced by EPA/ DOT for local dissemination	Spare the Air SF Bay Area; Free transit on mornings when air quality is likely to exceed federal standards, plus promotion and media attention	CTA New Residents Program Chicago; Surveys & information packets with fare cards sent to people who have just moved to locations in/around Chicago
Guiding Principles			
Behavior Change Does the campaign adequately target and measure behavior change?	No—behavior changes are very general, not measured, and not even expected before a 10-year horizon	Yes—very specific behavior change (ride BART certain days in the summer), and carefully measured	General behavior change is to ride transit from new home, but not adequately measured or specified
Customer Focus Does the campaign do enough to see "through the eyes of the customer?"	Focus groups provided insight to Target Audiences, but this insight was not successfully incorporated	No formative customer research although product is customer-focused	No formative customer research although product is customer-focused
Action Framework Does the campaign take into account the Target Audience's original level of interest in the new behavior?	No—the campaign addresses awareness broadly despite differing levels of initial awareness	Yes—people are already aware of Spare the Air days and free BART trips help perform the behavior	Somewhat—new residents are more actively contemplating their transportation choices
Simple, Doable Changes How easy is it to change behavior (physically or conceptually)?	Messages range from specific and simple—"don't top off your tank"—to general & complex: "ride transit."	Very simple and straightforward.	Fairly complicated: ride transit, but how often? to where? how come?

	It All Adds Up to Cleaner Air	Spare the Air	CTA New Residents Program
Main Steps			
Identify Stakeholders Who else cares about this issue? Political bodies, non-profits, businesses could all be potential partners	EPA, FHWA, FTA, local MPO's and air quality districts throughout the country, drivers, citizens	MTC, BAAQMD, BART, local employers, Bay Area transit organizations, drivers, citizens	Not addressed.
Define Target Audiences Who is the campaign trying to reach? What characteristics of these people make them good candidates for behavior change?	General driving public—particularly single occupancy drivers. Local communities may target more specifically.	Bay Area commuters who generally drive alone but for whom riding BART is feasible.	People who have moved to a new home in the Chicago area, because the moment is right to think about their transportation options.
Establish Campaign's Mission General reason for campaign, intended outcome	Reduce air pollution caused by automobiles, help local communities run air quality campaigns	Keep the San Francisco Bay Area under the 8-hour ozone standard for 2004	Prevent loss of riders through housing turnaround and attract new riders before other habits develop
Develop Behavior-Change Goals Specific behaviors that the target audience will have to adopt for the campaign to be successful	Combine multiple errands, keep cars well maintained, use alternative modes of transportation	Ride BART instead of driving to work on summer "Spare the Air" days (when SF is likely to not be in attainment)	Use the Chicago Transit Authority's buses and trains as a means of transportation from new home
Develop Belief- and Knowledge-Change Goals A different understanding of an issue that may make the behavior change more appealing	Understand impacts of travel choices on the environment and quality of life; know that things like maintenance can make a difference	Increase understanding of the importance of "Spare the Air" days	Increase knowledge of and familiarity with CTA services in new residents area
Analyze Costs and Benefits Seen by Target Audience The barriers that the Target Audience sees to the new behavior must be somehow addressed for behavior to change	Plenty of data gathered on barriers, but not adequately addressed in final plan	Not specifically researched but free trip addresses monetary cost issue	No research done within target audience but assumption that lack of familiarity with system in the new area is a barrier
Define new behavior in terms of "product" Core, actual, and augmented products help Target Audience see behavior change in terms of how it will benefit them	Core product is better air quality and quality of life through reduced pollution and stress	Augmented product is free ticket, core benefit is feeling like a part of the greater effort to spare the air	Augmented products are information and free ticket
Marketing mix—price, promotion, place How does the campaign design address barriers and get attention?	Promotion includes simple tips for changing behavior. Place of decision making is from home or car	Reduced price through free ticket, promotion includes lots of print and live ads plus media attention	Price of first trip lessened, place of decision making and of promotion is home of target audience
Pretest Try out strategy on small scale before implementation	Focus groups to look at materials, pilot efforts	Not done	Not done
Monitor and Evaluate Measure the success of the program	No measure by national team, some community partners may have performed evaluations	Passenger counts on BART on Spare the Air days, surveys of awareness of Spare the Air days	Results from voluntary survey before sending info packets, no follow up measurement

Source: Analysis by author

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Chicago New Residents Direct Mail Program

The Chicago Transit Authority (CTA) has been running a campaign called the "New Mover Direct Mail Program," also known as the New Residents program, since October of 1997. The program consists of sending informational packets and surveys to people in the Chicago area who have just moved to a new address, with the idea that if they are in a new location they may already be trying to figure out a new way to commute and may therefore be more receptive to the idea of experimenting with transit.

This program is a little different from most social marketing campaigns because the CTA is actually promoting their own service, not necessarily with the greater good of Chicago or the environment in mind, but because they need riders in order to make money. By law, the CTA must draw enough revenue to cover half of its operating costs, with the other half paid for by taxes through the Chicago area's Regional Transportation Authority (RTA)—funding from the RTA is based in turn on the CTA's number of riders. On the other hand, like most organizations that do social marketing, the CTA is not-for-profit and is not in direct competition for customers. Furthermore, while the CTA has many projects that aim to increase ridership by changing service, adjusting fares, and developing infrastructure, this particular campaign attempted to attract riders using advertising and information.

Formative Research & Stakeholder Analysis

The development of this campaign did not really involve any formative research or careful planning. The CTA is a large and bureaucratic organization with considerable planning and management. According to Jeff Wilson, who is the project manager for the New Residents program at the CTA, the program came into being when the president of

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the CTA, Frank Kruesi, decided that it would be a good idea. The inspiration for the program came from the results of CTA research in 1993 which had indicated that the CTA was losing riders who had changed jobs or home location; the initial goal of the program was "to replace riders normally lost through annual turnover."[38] The one other bit of information gathered before proceeding with the planning of the program was to ascertain that a reasonable number of people were moving to new locations in Chicago, and that these people could be reached. One of the CTA's marketing contractors, Diamond Marketing, purchased lists of newly registered telephone numbers and estimated that based on normal housing turnover, if the CTA contacted all of these it would be able to reach 15-20% of all households in the area over a two year period. Of course, because new residents were singled out based on a newly registered phone number, there was no way to make a distinction between people moving within the service area and people moving into the Chicago area from elsewhere. The area that has been targeted is the 39-municipality region including Chicago and nearby suburbs, which is the CTA's primary service area.

Strategic Planning

The purpose of the plan is "both to attract new riders to the CTA, from households either moving in from outside the Chicago area, or moving within the Chicago area, who have not before ridden CTA, as well as to encourage former CTA riders to continue riding at their new home location."[39] A secondary aim was to find out more about these movers through a survey that was sent out as part of the direct mail

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[38] CTA New Mover Direct Mail Program Reports, May 1998, p. 2
[39] CTA New Mover Direct Mail Program Reports, May 2003, p. 1

program. There were no specific objectives that laid out how many new riders the CTA hoped to attract, or what percent of previous riders they hoped to retain.

The materials for the campaign were planned and designed in house by people in the marketing department who have designed many brochures and ads for the CTA before; no additional research was conducted but design standards were followed so that new materials would match other CTA brochures, maps, and guides. Like other CTA material, these brochures had to be approved by the general manager of the Marketing, Advertising, and Promotions department, but other than this they were not evaluated for quality or effectiveness. The CTA's marketing contractor (which has changed over the years) would be responsible for actually mailing out the materials and collecting and analyzing the surveys.

The program was set up so that new residents (identified by newly registered telephone numbers) are sent a small brochure with a questionnaire asking about their current use of, and views of, the CTA, and are informed that if they return the questionnaire, they will be sent a "New Rider Kit" (See Figure 4.4). The rider kit contains a CTA map, a time table for the train line of the respondents' choice, and a transit card with 2 free rides (worth $3 or $3.50). The benefits of not just sending the new rider kit initially are that this allows the CTA to gather data on the respondents, and saves money by not sending a complete packet, including maps and timetables, to every single household.

The core product that the CTA is trying to sell through this program is the low cost and convenience of using the CTA. Although there has not been any research into the specific costs and benefits to potential riders of using the service, the augmented

Figure 4.4: New Residents Brochure delivered to all homes in the Chicago metropolitan area with newly registered phone numbers. Front side (above) and inside (below)

products that make up each "new rider kit" were based on a set of assumptions about these barriers. One element of the new riders kit is information about the CTA so that it becomes easier to figure out how to ride it; the recipients are provided with a general system map for all of Chicago (with bus and train routes) as well as a rail station time table for the nearest rail station, as identified by the new resident on the questionnaire. The second main element is the provision of a fare card good for two trips on the CTA, to encourage people to at least make a first attempt at using the system to see how it works.

One of the major hallmarks of this program is how it deals with place: the idea of a direct mail program is to reach individuals right in their homes, where they may be making their transportation decisions. Because of the chance that the brochures might be immediately discarded as junk mail, part of the promotional aspect was that they are brightly colored and eye catching. The front of the brochure reads "New to the Neighborhood?" so recipients know that the message is somewhat personalized to them; the front and inside advertised the free transit card that will come with the new rider kit. The initial price to residents was the time it would take to fill out the survey (not more than five minutes) and the cost of postage to send it back to the CTA. The price for actually switching to use the CTA would be different for each person, but with the information and fare card provided in the kit, this price was reduced for that first trip.

Evaluation has been a large component of this campaign, as a survey was part of the promotion itself, but this survey did not actually measure the results of the campaign. The survey asked questions about whether the recipient used the CTA before moving or plans to use it, what types of trips they might make with the CTA, how large a factor the CTA was in choosing their new home, and how frequently they would ride. The CTA

also periodically conducts more comprehensive traveler surveys to which these brief questionnaires could be compared. There was no specific follow up survey planned after new resident kits had been received, although in some of their yearly reports it is mentioned that the CTA would like to eventually conduct some sort of "after" survey.[40]

Implementation & Evaluation

There was no pretesting of this campaign. In 1997 the CTA began the marketing effort, which was originally intended to last for one year but which was renewed and has continued to this day; it is now one of the many standard outreach programs conducted by the CTA's marketing and promotions department.

Based on the number of newly registered phone numbers, over the past several years the number of new resident brochures being sent out has ranged from 8,000 to 25,000 each month, with the response rate—and the number of kits going out—ranging from 8 to 16 percent. Of those responding, an average of around 12% stated that they were not currently CTA riders, about 35% said that they had not previously been a CTA rider, and about 52% said that they expected to ride the CTA more often from their new address. In addition, around 77% of respondents said that the availability of CTA service had been an important factor in choosing their new homes.

Questions also revealed demographic data about the characteristics of people choosing to respond to the survey. Because it was a voluntary response survey, the results cannot be extrapolated to talk about the population in general, but they do give a sense about the people who are interested in riding the CTA:

- The primary trip purpose was going to and from work, accounting for about 60% of respondents' trips on the CTA.

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[40] "1998 Results: CTA New Mover Direct Mail Program" March 1999, p 5

- Household size was either one or two members for about 70% of respondents.
- Age distribution was skewed dramatically towards twenty-somethings, which accounted for 45-50% of respondents; with 30-40 year olds accounting for around 20%, and the percentage tapering off with each decade.
- Around 30% had no vehicle and about 50% had only one, while 15% had 2 and 2.4% had 3 cars.
- Data also broke respondents down by the branch of the rail system for which they were most interested in getting timetables, with the red, brown, and blue lines being most popular.

The data could potentially be useful for creating more targeted marketing campaigns that specifically address the type of people that are more likely to be moving and the type that seem interested in getting the new rider kits—people who are young, living alone, and live near certain rail lines. However, Jeff Wilson recognized that although they continue to collect the results from these surveys, the CTA's marketing department has not had time to seriously evaluate them, nor does it have funding that would let it create any new campaigns based on the information.

Because this survey was voluntary, the results are not random and cannot be extrapolated to the general community; rather, we would expect that those people who chose to respond and received the free tickets, were more likely than non-responders to already have some interest in the CTA and know that they would be riding at least once at some point in the near future. What we might say is that if 52% of the approximately 12% who responded to the survey plan to ride the CTA more frequently at their new location, then we can calculate that at least 6% of all new movers expect to use the CTA more. Of course, there is likely to have been a huge "demand effect" which often happens in product surveys in which people give answers that they expect the evaluator

hopes to hear; in this case, they may play up their intention to use the CTA because they know they will be receiving free tickets or simply because it is a CTA survey.

Analysis

The idea behind the New Residents program is a good one; the CTA has managed to personalize the promotion so that it shows up at exactly the time in someone's life when he may be reevaluating his transportation options—as compared with targeting someone who is set in his ways and would have to actively change his commute in order to try using transit. However, the execution of this concept was not adequately researched, tested, nor evaluated, and the result is a campaign that may have the potential to be much more effective.

The method by which this campaign was chosen and put into place might not be ideal from the Social Marketing standpoint, but sometimes top-down planning is the only way things get done. The CTA has many different types of marketing and outreach campaigns, and a formative research stage that attempted to determine how to get more people on public transportation would not really have been able to come up with any single answer; the population and service is too diverse. However, once the general idea of a direct mail campaign had been established, there could have been a lot more research done to design a campaign that would have more specifically targeted those people who might be receptive to the idea of changing their behavior. For example, if the goal was simply to increase ridership, perhaps they should have only targeted people within, say, a quarter mile of a transit line, but in a more involved way; rather than just mailing everyone who moved within or into the CTA service area without paying attention to who is best positioned to use transit. The CTA might already have surveys that show

areas of town in which people are very unlikely to use transit (or would use Pace or Metra, the other Chicago area public transit services), and it might be less useful to mail to people in these areas.

Another place that research would have been helpful is in testing the materials themselves. Just a few focus groups may have been able to provide some feedback as to what features of the mailings were most and least important. What if most people already knew where the nearest rail line was and where it went, but only knew about its weekend schedule? Perhaps a timetable that showed how frequent the service was during rush hour would have been enough to convince someone to try it out, even without the free ticket. Another thing that a focus group might have helped determine was people's willingness to answer the survey, find postage, and send it in.

An interesting point about this campaign is that the initial brochure does nothing to show residents how the CTA might be useful to them: if the purpose is to get people who had not planned on using the CTA to consider it, the first mailing should tell them something about the service, rather than expecting people to send for additional information. Anyone who responds to the survey and requests the free fare card, map, and timetable must have at least some knowledge of the CTA and think that it could potentially be relevant for them. But if a map came with the first brochure, and people who had never thought about the CTA before could see that there was a bus line close to their home, they might be much more likely to ask for more information, or even to go ahead and try it out (perhaps regardless of whether they had a free ticket). People who requested the new rider kit in this setup may be the same people who are most likely to figure out how to use the CTA without that extra information, while someone who has

never thought about the CTA before may just assume that it will not be useful to them and discard the brochure. The lesson here is that it may make a big difference what information is included in the first mailing in terms of getting people to consider and try riding the CTA.

Finally, the way that the program is being evaluated does not seem to be very useful. Surveys that rely on voluntary responses are always a bit dubious because the majority of people that reply are those that have some interest in the topic. None of the analysis of this campaign claimed that the survey results represented a random sample or could be extrapolated to the general population, which would have been clearly illegitimate. As such, it is unclear how useful the data actually are; in the end it seems to have served as a device to sort out who would get the free ride.

One can imagine how the data collected from these surveys might be used in future marketing programs: for example, the El attracted much more attention from New Mover respondents than did the bus, especially the red, blue and brown lines. The CTA considers this fact to be an opportunity for new marketing efforts in keeping with evolving trends in ridership and reflecting development in the housing markets in areas along these lines. The finding that many people responding to these surveys are interested in using transit for non-work, non-commute purposes was an important one, and the CTA could treat this as an indication that they should try to market more specifically to people who might choose the CTA for shopping, entertainment, or social trips. However, at this point none of the results have actually been used to inform any

new campaigns—or changes in service, for that matter—primarily because the marketing and promotions department does not have the funds to develop any new programs.[41]

Doing a little more research on the target audience for this campaign could help a great deal and open new doors, as would evaluating the results using more rigorous before and after assessments of how people were affected by this campaign—the way it is conducted now seems to make it easy for someone already interested in the CTA to get a free ride, while not necessarily inspiring anyone else to try it; this might mean that they are retaining old riders without attracting new ones. As happened in this campaign, there is the risk of conducting research that may not be used, which could be a waste of time and/or money. Nevertheless, if it were possible to rejuvenate this campaign, the added research would be useful.

For each individual aspect of this case, insights from the Social Marketing model might only be marginally helpful—for example, gathering new information is not useful if it cannot be used, and defining a target audience such as "new movers to an area" may not be a useful categorization if this audience does not share other characteristics in common. However, I think that if the CTA had been able to more closely follow the Social Marketing model as they planned the campaign, they could have produced a more targeted and effective campaign that had a small but significant impact in increasing the ridership of the CTA.

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[41] Wilson, Jeff. Chicago Transit Authority, Department of Marketing, Advertising, and Promotion. March 2005

5. Analysis & Findings

Through the case studies I have demonstrated that marketing and promotional strategies have the potential to influence transportation choices, but that it is not easy and requires substantial research, testing, and most of all insight. The tenets of Social Marketing have been gaining ground in campaigns relating to health, social development, and the environment, but have yet to establish a firm base in the field of transportation. If transportation advocates were to become familiar with the work of Social Marketing experts such as Andreasen and Kotler, we could expect their campaigns to improve in effectiveness and impact. In particular, if marketers were more careful about listening to their target audiences and defining specific behavior changes, they would be able to craft messages that resonate with people to produce not just changes in awareness but real behavior change that, in the long term, would convince people to leave their cars at home. Furthermore, careful evaluation of promotional campaigns is essential to making strides in transportation marketing campaigns because it would allow marketers to learn from past successes and mistakes, and reduce the risk of repeating failed campaigns.

The Campaign Development Process: Research, Research, Research

The need to be customer-focused, to return again and again to the target audience for insight, is demonstrated by the shortcomings of the Chicago New Residents program and the national "It All Adds Up to Cleaner Air" campaign. In "It All Adds Up," the EPA/DOT team did a great deal of research on their target audiences, and shaped their messages using input from the many focus groups they conducted. Without this research, many key insights would have been missed. First, it helped them define their target

audience by showing that people who exhibited other environmentally friendly behaviors were actually no more likely to consider the environment when making transportation choices; based on this their target audience became "the general driving public." Later in the process, once they had started to determine behavior change messages, getting feedback from members of the target audience was again valuable in demonstrating the importance of the tone of the message and steering the campaign away from messages deemed too judgmental. Without these insights, the "It All Adds Up" campaign would have been targeting an irrelevant group of people, and doing so in a way that would have turned them off rather than making them feel like they had a role to play in reducing auto emissions. However, the campaign went on to produce ads that had environmental responsibility as their main theme despite the fact that people in their target audience had indicated that they were not interested in these messages, or unlikely to pay attention to them.

While the social marketing model presents two main types of research to be conducted in the strategic planning phase—formative research before developing the campaign, and testing before implementation—the "It All Adds Up to Cleaner Air" campaign did even better by conducting focus groups continually throughout the process in order to keep on track.

In the case of the Chicago New Residents program, there was essentially no research done for either of these stages, a fact that greatly undermines what seems to be a very clever idea for a campaign. In the formative research phase, there was an opportunity for the CTA to narrow its target audience; this is indicated strongly by the information gleaned from the surveys sent out. As with any voluntary survey, the way

people answered does not say much about the general population of movers in Chicago; however, the answers say a lot about the type of person who is likely to be interested in what the brochures have to say. If the CTA had narrowed the target audience to focus more specifically on the type of person who responded to the survey—maybe based simply on the geographic locations that garnered the most responses—they could have tailored the messages more specifically to this crowd and perhaps gained more new riders among them.

In terms of the actual materials themselves, trying out different formats for presenting the new resident information and pretesting the materials with members of the target audience might have provided valuable insight. Of course, without research proving otherwise, it is possible that the way the campaign was set up actually *was* an effective way to attract new riders. I expect that this is not the case, however; a disproportionately high percentage of people responding to the survey had already intended to use the CTA, meaning that comparatively few were people that had been inspired to try it based on the brochure. But it is amazing what a difference a subtle change might have made, even in something as mundane as the format of the brochures that were sent out.

A fascinating example that I think is very relevant to transportation is a study done by social psychologist Howard Levanthal in which the inclusion of a campus map on a brochure about tetanus vaccinations increased the likelihood that college seniors would go in for their vaccination by a factor of nine. In the first iteration of the study, a brochure was distributed to seniors at Yale explaining the dangers of tetanus and informing them that they could get vaccinated at the school's health clinic; while many

students said they intended to get their vaccinations in a survey that took place soon after the distribution, only 3% of those receiving the brochure actually had done so a month later. Levanthal later redid the experiment, this time with one small difference: a map of campus was included in the brochure, and the health building circled. Because the students targeted were all seniors, they knew where the health building was and had probably been there several times before—but nevertheless, this time a full 28% of students actually made it in for the vaccination. Having this map somehow allowed them to see how visiting the clinic could fit into their week, which turned the vague intention to get the vaccine into a concrete and easily executable plan for doing so.[42]

Relating this example back to the CTA marketing program, one can imagine that something subtle like including a map in the first brochure that was sent out might have helped people who were not previously interested in the CTA see how its routes could be relevant to them—rather than only sending a map *after* someone had expressed interest. And certainly this is not the only type of change that could have made a big difference; how much more likely would people have been to send in the survey if postage had been paid for them? What if there was one question on the survey that people were less inclined to answer? Or maybe a better allocation of resources would have been to forgo having two separate mailings altogether and instead mail the New Residents Kit, complete with free ticket, to everyone—or at least to the segment of the market that was most likely to use the CTA. I am not arguing that these particular things would have made a difference, but that by pretesting different materials on members of the target audience, the CTA might have produced a better campaign. Although funds and time

[42] Howard Levanthal, Robert Singer, and Susan Jones, "Effects of Fear and Specificity of Recommendation Upon Attitudes and Behavior" 1965, cited in Gladwell, Malcolm, *The Tipping Point* 2000 pp 96-98

may have been limited, this campaign has been running for almost eight now without any major changes to the materials sent out; surely of the hundreds of thousands of brochures they have mailed to date, it would have been worth considering some other options before sending them.

Evaluation & Accountability

No matter how carefully a social marketer researches her target audience and pretests her campaign, there is no guarantee that it will work as expected, and the only way to determine its effectiveness is through evaluation. With the CTA New Residents program, although they are collecting enough data through the voluntary surveys to put together a report, they really have no idea if the campaign is working to get new riders interested in the CTA. Because the system is so big—it carries 1.5 million riders per day—and because of fairly regular changes in service, the number of new and retained riders from this program would not really make enough of an impact on total ridership to be measured through standard passenger counts (as was possible in the "Spare the Air" campaign). But the CTA might have conducted a telephone survey, perhaps before-and-after the implementation or the campaign—because it is a direct mailing and the CTA has the phone numbers of everyone in the target population, there is the potential to get good data. With these data the CTA could have made much more educated decisions about whether to continue the campaign, or whether there might be a way to tweak it to make it more effective. If the CTA determined that the campaign was completely ineffective, the costs of this additional monitoring could have been better spent than reproducing the campaign every year. Furthermore, these data could have been useful to other towns or

transit agencies considering direct mail programs, by measuring what the rate of return is on investing in the brochures.

In the "Spare the Air" campaign, there was a predetermined plan for monitoring the change in passengers on Spare the Air days, and it worked out quite well; there was a statistically significant difference in the number of commuters taking BART on these days, and the change was big enough that the region did not exceed the federal ozone requirements. Because of the success, in 2005 the campaign is being recreated, this time with free trips for all Bay Area transit agencies. Here, compared to the CTA New Residents program, there was a lot more at stake for the marketers: if the ozone standards had not been met, federal funding for transportation projects would have been cut; at the CTA, whether or not the campaign went well was apparently not a criterion for its continuation. This is a serious problem if the CTA wants to increase ridership! Perhaps the problem is partly in the way the CTA is set up; it is a very large and bureaucratic organization, with a huge proportion of customers who ride for reasons having nothing to do with marketing efforts. It runs a number of different marketing programs, not because these help keep market share high (as they might for a commercial organization) but in part because that is what is expected of this department and is what has always been done. Once the New Residents campaign had been initiated by Frank Kruesi, the CTA president, it became one of the standard campaigns that is put out every year, in addition to the hundreds of other standard brochures issued by the marketing department. As such, it is the job of the program manager to make sure that the program keeps running smoothly—that the information in the brochures is up to date or that the contractor continues to collect survey results—but with limited time, no funding for research and

development, and no need to prove the campaign's worth, there is little incentive for improvement. This lack of accountability seriously undermines the potential of this campaign to actually make a difference in people's riding habits.

Campaign Content: Simple Behavior Changes

These three cases just begin to suggest how many different types of campaigns might be used to promote alternative forms of transportation. So far in my analysis I have focused primarily on the process of *developing* campaigns, rather than on their *content*, because the process can be adapted from one campaign to another while the content should be based on findings from research into the target audience. Nevertheless, there are a few main points that are particularly relevant for transportation-related campaigns. The first is to understand how transportation fits in to the spectrum of personally relevant issues, and to avoid promoting transportation solely for the sake of "greater good" issues like pollution or congestion. The second is that transportation habits occupy a huge part of day to day life and asking someone to change all at once is probably asking too much, as compared to smaller, more "doable" changes. Finally, it is important not to think of transportation marketing in a vacuum but to understand other contextual factors such clean air regulations, and to find ways to leverage these when possible.

When I first conceived of this thesis, I expected that it would be an evaluation of social marketing campaigns from other fields such as anti-tobacco or energy conservation in order to glean lessons for transportation. In thinking about the lessons that might be learned from these different types of campaigns, I began by trying to categorize them

based on what type of impact they would have: anti-smoking campaigns are intended to improve the health of the people doing the negative behavior, and perhaps the people immediately around them, as compared to energy conservation which may have some individual benefits in terms of money saved, but where campaigns are primarily intended to benefit the larger environment. Placing these different types of social marketing campaigns into a spectrum, transportation choices occupy a place in the middle where benefits could either be presented as being for the environment, or for some other greater good issue like congestion, or else in terms of personalized benefits such as cost savings, reduced stress, convenience, safety, or personal health from getting exercise. In the "It All Adds Up to Cleaner Air" campaign, one insight from the research conducted was that most people, even those that see themselves as environmentally conscientious, will not be receptive to calls for change in their transportation behavior on environmental grounds. In fact, the focus groups conducted for this campaign revealed that "greater good" messages could actually elicit negative reactions from people who were indignant that they were being made to feel personally responsible for such widespread problems as air pollution. This not an unusual reaction; the OECD Policy Meeting on Sustainable Consumption and Individual Travel Behavior found a similar result:

> What seems clear is that "doomsday" stories and scenarios will fail to provide individuals with concrete opportunities for changing their behaviour — they may even be counter-productive since they lead to feelings of helplessness and guilt.[43]

In the case of "Spare the Air," which has been running for many years promoting the environmental message (even without the free transit), there is something that is going on that is slightly different from the "It All Adds Up" message of "every little bit helps." In

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[43]"Report of the OECD Policy Meeting on Sustainable Consumption and Individual Travel Behavior" 1997, p 9

the San Francisco case, the greater good component is much more specific and much more localized; rather than asking people to feel responsible for the daily, incremental impacts of their transportation choices, this campaign asks people to be part of a Bay Area community effort to keep air quality at a very precise level. This goal seems like a much more reasonable thing to be part of than helping guard against the possibility of global warming.

Another aspect of the "Spare the Air" campaign that made people more willing to take part is the fact that the behavior change that it asked for is very specific and fairly small. In both "It All Adds Up" and the CTA New Residents program, the desired change in behavior is a continuous or permanent shift in the way members of the target audience get around. These types of changes have huge impacts on a person's day to day life, and even if a person believes that the end result will be better for them, it is scary to decide to change all at once. Riding BART a few times during the summer is much more manageable. Furthermore, the urgency and specificity of the "Spare the Air" request makes the decision to adopt the behavior much easier: with switching to the CTA, someone who is sort of attracted to the idea has to answer many questions before starting—"Am I going to ride transit for work trips? for errands? Do I want to ride the bus or the El? Should I start today...or maybe next week since it's raining? Will I get a monthly pass or buy my tickets each time?"—the "Spare the Air" campaign takes all this guesswork out by simply saying "Ride BART to work tomorrow morning." Between the two programs there are hundreds of other variables besides the simplicity of the behavior change, and from these examples (especially without documented results from the CTA

campaign) I cannot concretely prove that the simplicity of the message was a relevant factor, but it is hard to imagine that it did not make a difference.

Of all the messages put forth in the "It All Adds Up to Cleaner Air" campaign, some fit the description of being small and simple changes, but these were the messages that had more to do with using automobiles more sustainably, such as not topping off the gas tank and not starting the car while the engine is cold. We do not know whether these worked any better than the messages that suggested riding transit more generally, but these seem much easier to incorporate into an existing daily routine, as compared to switching to the bus which requires a big change in daily activity. These examples are also quite different because they may be addressing the target audience in a different stage in the action framework; while most people know that the bus exists but choose not to use it, fewer people know that topping off gas tanks and starting engines cold is bad for the environment and bad for fuel economy; these ads addressed people in the precontemplation stage, at which point a message that raises awareness is more appropriate.

Most of the literature I looked at on marketing in the transportation industry invoked a repeated call to look at the way that car manufacturers use emotion and imagery in their ads. Automobile purchases are made based on ads that market different lifestyles, and ads for different kinds of cars play up the image that an owner of that car would have for themselves: someone buying an SUV may want to think of themselves as adventurous and spontaneous, while someone buying a station wagon may think of themselves as family oriented, sensible, and economical. While I agree that a brochure

for a bus route would do better to have a picture of people having fun, rather than of a standard bus, I do not think that changes like this are going to be enough to influence people to change their behavior when compared to the many barriers to using alternative modes of transportation. While purchasing a car and switching transportation modes are both considered "high involvement decisions" as compared to something like choosing between toothpaste brands, the purpose of advertising either one differs greatly. Car manufacturers heavily market lifestyles because even after the decision is made to buy a car, customers still have to decide between different makes. The decision to ride transit is more comparable with the decision to buy a car in that it involves thinking about various large costs (monetary and otherwise) and weighing these against the perceived benefits; by the time a customer decides to purchase a car the relative costs and benefits of different makes are small in comparison.

The Potential Fifth "P:" Policy

Where the image of alternative modes of transportation may be relevant is in generating public support for new projects. If attempts to change peoples' perceptions of public transportation work, even if they may not be willing to use it themselves they may be willing to support policy measures that would, for example, allow more funding for transit projects. In the Transit Cooperative Research Program report on the image of public transportation, and in the OECD report on sustainable transportation behaviors, getting a change in policy is one of the main goals of their suggestions to address the images of alternative transportation. However, for campaigns that are intended to result in behavior change, rather than policy change, these types of messages are not always

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going to work. Messages that focus on simple, concrete behavior changes may not seem as glamorous as campaigns that address the image of different modes of transportation, but the results may be more attainable and more measurable.

Although none of the campaigns I looked at were intended to inspire support for policy changes related to transportation, each of them is related in some way to existing policies, and this context should not be forgotten in their examination. The "Spare the Air" campaign had the highest level of policy impact, since if the campaign failed to keep air pollution below federal levels, the Bay Area risked losing all of their federal transportation funding in the upcoming year. In the case of "It All Adds Up to Cleaner Air" campaign, the results of the campaign are much more detached from the organizers: the advertisements produced are available for states and metropolitan planning organizations that want to use them to help their regions meet federal air quality regulations; in fact, the MTC could have used these ads instead of or in addition to their free transit BART campaign, although the impacts of these print ads might be small compared to the free trip. Finally, the CTA New Residents program was ostensibly part of a greater effort to keep ridership levels high enough for the CTA to keep its funding, although with 8 to 25 thousand people contacted per month compared with the 1.5 million who ride the CTA on a daily basis, this campaign was not going to make or break the CTA's ability to keep the mandated ridership revenues.

In the case of the Spare the Air campaign, I think that the urgency of the request for a behavior change was an important part of getting individual drivers to try using BART. This urgency might also have played a part in allowing the Air District and the MTC to design a highly focused and effective campaign. For the other two programs, the

need to change behavior almost seemed to be secondary to the need to produce a campaign of some sort; in the EPA case it was in response to the NARC report's recommendation that a campaign be formed, and with the CTA the campaign was created at the request of the organization's president. Perhaps when the social marketer's charge is to produce a campaign, rather than to effect a behavior change, it changes the urgency of needing to produce something that will work. This in turn may make the use of Social Marketing tactics, which may be difficult to someone following them for the first time, seem less important. Nevertheless, I think that if an agency is serious about developing campaigns that produce behavior change, the lessons from Social Marketing described above are quite valuable.

6. In Conclusion

Social marketing campaigns are most effective when organizations understand the values of the people they are trying to influence, and when they create messages that speak directly to these values. When organizations try to influence people's transportation choices, these values are things like personal comfort, time, and convenience—people may like the idea of protecting air quality or reducing traffic congestion, but their transportation choices play a substantial role in their day to day lives, while the impacts of these choices on things like the environment are practically imperceptible. Campaigns have been conducted that try to raise people's awareness of these environmental issues, but these tend to be useless as many are already aware of the impacts of automobiles but are faced with other barriers to changing their behavior. The campaigns that are more effective are the ones that show drivers the benefits that other modes of transportation could give them (like time to read on the bus), or that give them some more urgent or locally based reason to try a new mode (riding BART on Spare the Air days).

Suggesting that people should completely change their transportation habits may be very hard to sell because it would be such a big change—it is easier to ask for smaller, more manageable behavior changes, either pertaining to certain types of trip (walk for errands like going to the post office) or pertaining to specific days (ride transit on Spare the Air days or bike to work on casual Fridays). These small changes may be stepping stones on the way to helping people make larger changes, but despite being small they may be a better target than aiming for a life-altering behavior change, and not getting any results. Finally, even with a strong argument for people to try another mode, campaigns

are likely to be more effective when they do not just advertise and provide reasons for changing, but make change easier by providing a map, or arranging an incentive like a free ride.

Campaigns that are less effective are ones in which a social marketer assumes that the members of her target audiences are similar to her; that benefiting the greater good will be enough of an incentive to change their behavior, and that all it will take to get them interested is an ad that explains why their current behavior is bad. In fact, campaigns may be less effective if the marketer assumes that all members of her target audience are similar even to each other—people of different ages, living and working in different parts of cities and suburbs, expect different things from their transportation choices and will not be swayed by the same arguments—not to mention that they do not have the same options available to them even if they wanted to change behavior!

So what can transportation marketers do to make sure that the messages they put out will resonate with people who make transportation choices? What I hope I have shown in this thesis is that rather than try to answer this question from scratch, transportation marketers can look to the existing field of Social Marketing to help design and evaluate campaigns that will not be ignored, and that will actually result in people making different transportation choices. Sandy Schultz-Hessler, Professor of Social Marketing at Tufts University, describes the major insight of Social Marketing as "going out and listening to your customer rather than sitting in a room and trying to figure it out by being smart"[44]—said this way, it sounds trivial. Yet, it is a profound insight. For each of the three case studies presented in this thesis, and probably for hundreds of other

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[44] Schultz-Hessler, Sandy. April 6, 2005; quote from lecture at Tufts University

transportation marketing campaigns, if the marketers were to stick to this mantra they would be able to improve their campaigns.

Conducting extensive formative research allows the social marketer to make what amounts to an educated guess about what the target audience will respond to—it is far better than guessing randomly, but still may not be correct. This is why it is so important to evaluate the results of the campaign. Through careful monitoring of transportation marketing campaigns—those that use Social Marketing as well as those that do not— organizations can develop an understanding for the types of campaigns that are or are not effective for their target audiences. Knowing whether a campaign was successful is valuable for two major reasons. The first is that it allows marketers to make better decisions about what campaigns their organizations should sustain or expand, and which they should discontinue. The second is that if the process of developing and implementing these campaigns is well documented and publicized, it can greatly help other transportation marketers to choose and develop their own campaigns based on previous experiences.

Next Steps

Two things need to happen in order to make the arguments presented in this thesis relevant to real organizations running real campaigns: these organizations need to learn how to use Social Marketing tactics, and they need to have access to quality information about other campaigns that have or have not been successful. How to get this information out is a tough question, but I would like to propose one possibility. The purpose of the EPA/DOT team that came up with the "It All Adds Up to Cleaner Air"

campaign was to help local governments and MPOs address air quality issues in their regions. In addition to producing high quality materials for these local organizations to use, they currently have recommendations for how to incorporate these campaigns into local marketing campaigns, and also have an online forum for communities to post information about how they have done so. Instead, the "It All Adds Up" materials should become the organization's second priority, and the first should be in teaching community level organizations how to use Social Marketing tactics to develop their own campaigns that are appropriate at that level. The online forum could expand into a database for showcasing all the different kinds of marketing campaigns—successes and failures—so that transportation marketers across the country could learn from other campaigns that addressed similar issues or targeted similar audiences. The EPA/DOT team could collaborate with other groups like the American Public Transportation Association, or national biking or walking advocacy groups, in order to reach more than just MPOs. In providing how-to information on Social Marketing and best practices from other communities, organizations involved with transportation marketing would be able to improve the campaigns that they are already running or produce new campaigns that will have measurable impacts on behavior change.

In his report for UITP, Michael Roth also discusses the need for transportation practitioners to take their cues from the field of Social Marketing. As I mentioned in my literature review, he describes an unusual individualized marketing program called IndiMark for which Social Marketing principles were used to develop a new and radical way to promote alternative transportation. I want to build on Roth's recommendation to

use Social Marketing, but add something very important which is that for the principles of Social Marketing to be effective, transit agencies, city governments, and non-profits do not have to completely change the way they do things—I have made an argument that reluctance to make large changes is one of the reasons people stick to using their cars, and I imagine that likewise, established organizations are not inclined to abandon their long-time practices and start from scratch. Rather, I want these organizations to understand that social marketing can help them to do a better job with the *same types of campaigns they are already running.*

It is unlikely that the problems brought about by automobile use can be solved solely using marketing and promotion—changes to infrastructure, changes to policy, and changes in technology will all have to contribute as well. Nevertheless, marketing will always be an important piece of the solution—and by using Social Marketing tactics to develop campaigns, and by carefully evaluating and sharing results, transportation marketers can increase their contribution this cause by inspiring individuals to make smarter transportation choices.

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