



Progress Report

**EVALUATION OF STRATEGIES TO PROMOTE TRANSIT RIDERSHIP
AMONG CHOICE RIDERS:
APPLICATION TO THE TREN URBANO**

by

Celimar Fournier-Rodríguez, Undergraduate
cfournir@hotmail.com
Civil Engineering Department
University of Puerto Rico at Mayagüez

Advisor
Felipe Luyanda Villafañe, PhD
fluyanda@ce.uprm.edu

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Executive Summary

Urban train systems must satisfy the quality of service necessary to attract the riders. Two of the reasons to develop a transit in a city are to reduce traffic congestion and to improve the quality of the environment. Choice riders are dominated by the automobile dependency. Conclusions of studies have shown that automobile dependency increases higher vehicle expenses, congestion, accident damages, and a variety of environmental impacts. As a result, some cities from the United States, Europe and Latin America have created strategies to change the mind or to convince choice riders to use transit.

The emphasis of the research will focus on the Puerto Rican passengers' point of view. The passenger point of view is very important because it will give us a guide of what the passenger wants, what will make him feel good, and what type of strategies they will accept and support.

The research is concentrated in identifying, evaluating and recommending different strategies used by cities from the United States, Europe and Latin America which will aid in short, medium, and long term, to capture and maintain the attention of the choice riders in the Tren Urbano. The objectives of this research are:

- ✓ Identify and evaluate different strategies to promote transit ridership to choice riders and,
- ✓ Recommend the most effective strategies for promoting the use of the Tren Urbano among the Puerto Rican choice riders.

In order to accomplish these objectives the research includes four principal tasks:

- ✓ Task 1: Identification of strategies
- ✓ Task 2: Survey of choice riders
- ✓ Task 3: Evaluation of strategies
- ✓ Task 4: Development of an Action Plan

During this semester, Task #1 was performed and it consisted in identifying all the strategies possible, regardless of the city, and to make preliminary evaluations of which are the most used or common ones. The strategies for promoting the use of a transportation system are divided under four main categories: Service Improvements, Information to Customers, Marketing and Promotions, and Public Policy Changes (from Building Transit Ridership, TCPR Report 27).

From a total of 38 strategies found, the percentages of strategies per category are: 53% of Marketing and Promotions, 34% of Service Improvements, 8% of Public Policy Changes, and 5% of Information to Customers (almost every system has a web-site). In conclusion the Marketing and Promotions, and the Service Improvements strategies are the most used. In a preliminary evaluation this fact will make me believe that in Puerto Rico's train system the efforts should be directed in that direction, along with the implementation of a good web-site.

The next step in this research will be the development of a questionnaire for trying to capture the San Juan Metropolitan Area population voice. This will give me ideas about which are the concerns and demands that the potential customers will have for using the Tren Urbano. After the survey and the evaluation of strategies, I will be able to provide an action plan for attracting choice riders to use the Tren Urbano, and concluding this research.

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Introduction

Urban train systems must satisfy the quality of service necessary to attract the riders. The actual trends in providing solutions to urban transportation problems increase the focus on moving persons and not simply vehicles. In terms of their operation and administration, it is not only required that the service be provided in a reliable manner but also that it be complemented with diverse strategies that promote transit use in order to encourage higher transit ridership and less auto use. This has increased awareness on the part of local jurisdictions on the benefits transit related strategies can play in attracting ridership and reducing overall traffic congestion. Two major roles of transit are to accommodate mobility for people too young, too old or unable to drive, regularly called captive riders, and to accommodate those riders, who have a car available, also known as choice riders. As a result, some cities from the United States, Europe and Latin America have created strategies to change the mind or to convince choice riders to use transit.

Two of the reasons to develop a transit in a city are to reduce traffic congestion and to improve the quality of the environment. Choice riders are dominated by the automobile dependency. Conclusions of studies have shown that automobile dependency increases higher vehicles expenses, congestion, accident damages, and a variety of environmental impacts. As a result, this reduces economic productivity and development in the society. Accommodation of choice riders on transit is dominant in the peak periods for work trips. As such, transit increases the number of people that can be carried by urban transportation systems and helps reduce, or at least constrain, the growth of the more than 4.36 billion person-hours lost to urban traffic congestion annually in the United States (2). This proves how important is to capture the attention of this community to create a balanced transportation system.

Public policies can produce large ridership growth even in countries where auto ownership levels are already high and growing, and where suburbanization is occurring at a rapid pace. By carefully coordinating fares and services for all routes, all types of public transport, and all parts of the metropolitan region, Verkehrsverbund systems in Germany, Austria, and Switzerland have greatly improved the quality of the public transport alternative to the automobile. At the same time Curitibaños enjoy world-class transit services thanks to careful planning, smart decision-making, and inspired leadership. Using similar strategies, cities in the United States and Latin America have improved the quality of service and increased the ridership among choice riders.



General Background

Difference between captive riders and choice riders

Captive riders are the population not able to use a car. In this category enters population too young, too old, or otherwise unable to drive due to physical, mental or financial disadvantages. In 1988, the U.S. Energy Department estimated that 13% of the 91.6 million U.S. households did not own a car, truck, van, motorcycle, or motor scooter, and that another 34% owned only one vehicle (3). In contrast, choice riders are those who choose to use transit for their trip making even though they have other means of travel, in particular a motor vehicle. In accordance with the American Public Transit Association (APTA) choice riders include "workers, environmentalists, travelers, and people on recreational, social, medical, or other journeys who do not have to use transit, but do so for reasons of speed, comfort, convenience, traffic avoidance, or environmental principle".

Passenger point of view

The emphasis of the research will focus on the passenger point of view. The *passenger point of view*, or *quality of service*, directly measures passengers' perception of the availability, comfort, and convenience of transit service. The measures that have been determined to best represent the passengers' perspective of transit availability, comfort, and convenience, yet are relatively easy to measure, have been selected as service measures. The *passenger point of view* is very important because it will give us a guide of what the passenger wants and what will make him feel good and what type of strategies they will accept and support. This will allow us to improve the system, and it will increase the opportunities of the passenger to return to use the train.

Scope and Objectives

The research is concentrated in identifying, evaluating and recommending different strategies used by specific cities from the United States, Europe and Latin America which will aid in short, medium, and long term, to capture and maintain the attention of the choice riders in the Tren Urbano.

The objectives of this research are:

- Identify and evaluate different strategies to promote the transit ridership to choice riders and,
- Recommend the most effective strategies for promoting the use of the Tren Urbano among the Puerto Rican choice riders.

In order to accomplish these objectives the research includes four principal tasks:

- ✓ Task 1: Identification of strategies
- ✓ Task 2: Survey of choice riders
- ✓ Task 3: Evaluation of strategies
- ✓ Task 4: Development of an Action Plan

This report presents information on the first task since the others tasks will be performed next semester.

Preliminary Findings

Description of Task 1

In this Progress Report I the results of the completion of the first task is presented.

Task 1: Identification of Strategies

- The first task in the proposal was the identification of strategies based on the literature and by studying selected cities in the United States, Latin America and Europe. The strategies were to be selected based on their applicability to the Tren Urbano project and to the San Juan Metropolitan Area and on their success in other cities. The cities to be selected were based on:
 - ✓ Similarity of the rail system to the Tren Urbano. This includes physical characteristics of the system such as length, number of lines, number of vehicles and number of stations.
 - ✓ Similarity of the city to the San Juan Metropolitan Area, such as population, housing units and population density.
 - ✓ Level of success of the system, and
 - ✓ Implementation of strategies of the city to promote ridership for choice riders.

At least six cities were to be studied in detail, two each from United States, Europe and Latin America.

- In order to understand what measures can be used for persuading and getting the choice riders' attention is necessary to define what are the strategies available and how they work. Table 1 shows a preliminary list of strategies to be considered for further study. These strategies are general and may not apply to all the cases or for all the train systems. This is true since the culture, behaviors, and trends vary from region to region. This research will focus on the study and recommendations of the most effective strategies for increasing the Puerto Rican choice riders usage of the Tren Urbano.
- This first task was modified from the original proposal, because the effectiveness of the strategies depends on the cultural beliefs and practices of the population that will be using the system. In other words a strategy can be effective on a city or a country, but be ineffective on another country. For this reason I understand that the efforts should be directed on getting information about the strategies used actually on different train systems around the world, and then proceed to the next tasks, the survey, the evaluation, and the work-plan.



- The change will consist on identifying all the strategies possible, regardless the city, and make preliminary evaluations of which are the most used or common ones. The strategies for promoting the use of a transportation system are divided under four main categories: service improvements, information to customers, marketing and promotions, and public policy changes (please refer to *Table 1*).

Table 1: List of Potential Strategies to Study*

Category	Type	Example of strategies
Service improvements	General	Increased speed Improved security Improved comfort Increased capacity Increased frequency
Information to customers	Real-time information services	Location Schedules
	Technology	Computerized information systems Kiosks
Marketing and promotion		Fare incentives Education New resident promotion Image advertising Cooperative promotions
Public policy changes		User-side subsidies Parking pricing/regulation Income taxes Fuel/Carbon taxes Dedicated operating support Land use policy

* Building Transit Ridership, TCPR Report 27

Strategies to promote transit ridership

In this section I will mention and give a brief description of some strategies that are been used currently in different train systems around the world. These strategies are classified on the categories shown on *Table 1*.

Service Improvements

Verkehrsverbund systems in Germany, Austria, and Switzerland (Hamburg, Munich, Rhein-Ruhr, Vienna, Zurich)

1. **Service expansion:** The five systems increased the frequency of service on most of their existing rail and bus services. In addition to providing more and better services, all five of the Verbund systems have made considerable investments in improved information for passengers. Also a range of vans, minibuses, midibuses and taxis services were added to the five systems to complement the other services offered.
2. **Better quality of service:** They have steadily expanded their networks of reserved bus lanes in order to insulate buses from delays resulting from roadway congestion. Inter-modal and inter-route connections have been greatly improved in all five-study regions. In addition, all five dramatically increased the number and capacity of park-and-ride facilities, primarily at their outlying S-Bahn stations. Bus stops and stations have been expanded, modernized and redesigned to improve the comfort and safety of passengers waiting to transfer from one bus line to another, or between rail and bus lines. Over the past ten years, all five of the Verbund systems have greatly improved the quality of their vehicles, buses, trams, trolley buses and rail cars, offering increased comfort, higher capacity, and easier exit and entry.

Saint Louis, Missouri

3. **CALL-A-RIDE:** Provides curb-to-curb van service in St. Louis City and County with advance reservations.
4. **Chesterfield Connector:** Designed to provide health care, light manufacturing, retail and hospitality employees a cost effective and expedient method of travel to their places of employment. This service connects existing bus and MetroLink routes to a series of van routes in the Chesterfield area in order to deliver this fast and efficient service.



5. **FUN*RUN- RAMS EXPRESS:** Brings stadium parking to the neighborhood with 11 convenient Park-Ride locations to serve on each and every home game day or activity.
 - a. Muny Express
 - b. Redbird Express
 - c. Fair Saint Louis
 - d. Rams Express

San Diego, California

6. **DART:Community Shuttle Service-** is a community van shuttle service for Mid-City, Mira Mesa, Scripps Ranch, Paradise Hills, and Rancho Bernardo neighborhoods where Bus stops are far apart, far away from homes, or not available. DART vans will pick passengers up at their home and drive them to local Bus stops, take them to places within their community, or pick them up on their return Bus trip and shuttle them back home. DART runs on weekdays from 5:30 AM to 8:00 PM. Every DART ride includes a free transfer to the bus.
7. **Trolley Stadium Express Service:** When the home teams are playing, the Bus and Trolley take fans to the Stadium; make it easy to get to the games and to avoid traffic and parking problems.

Bogota, Colombia

8. **Mobility (fast service):**
 - a. Creation of bus systems, and adding more buses to existing systems.
 - b. Increasing the bus ways or paths.
 - c. Increasing the transit laws enforcement, with a tighter control and higher fines by the transit police.
 - d. Creation of permanent routes for the Metro System.

Buenos Aires, Argentina

9. Surveys of **"Levels of clients satisfaction"**: This survey will help the system to improve and to provide a better service to the riders. Also, will show the intentions of the administration on improving the quality of the service.
10. **"Subtepass"**: This is a magnetic card intended to replace the use of tokens. This card will make the access to the system fast and easy.

Croydon, UK

11. **Priority Seats:** for elderly and disabled people, or those traveling with small children, in each section of the tram and plenty of easy to reach stop request buttons to request the next stop.

12. **Next stop announcement:** the name of the next stop will be announced as the tram leaves the previous stop.

Mexico City, Mexico

13. **Benchmarking:** Creation of mechanisms of comparison and standards, with the definition of indicators for Efficiency, Reliability, Cost, Infrastructure, Safety & Security, and Quality. This practice will help to improve the overall efficiency of the system.



Information to customers

1. **Web sites and Online Information** - Most transportation systems around the world have web sites with very useful information, such as:
 - a. Maps of routes
 - b. Stations
 - c. Fares
 - d. News & Special Offers
 - e. Statistics & Technical Data
 - f. Links to important and useful information
 - g. Contacts
2. **Real-Time Information** – Some transportation systems provide real-time information on their web sites, in order to provide their customers with the latest information possible on the performance of the system.



Marketing and promotions

Saint Louis, Missouri

1. **Employer Pass Program:** Opportunity designed to provide a unique and valuable fringe benefit that will profit both the employee and employer. By subsidizing the total cost or a percentage of a Bi-State Monthly or Weekly Pass or Ten-Ride Ticket Book, The employer can offer to the employees tax-free savings, reduced transportation expenses and community convenience.
2. **Transit Week * Carpooling Week:** Citizens for Modern Transit and RideFinders are inviting current transit users and carpoolers to recruit a friend or co-worker on their commutes to work for Try Transit Week and Try Carpooling Week. For this the rider and friend will receive a free ride and prizes.

San Diego, California

3. **New Transit College Pass Program:** The new college semester pass is good all semester long for unlimited rides on all San Diego area buses and the San Diego Trolley, from the first Day of class to last day of finals, for less than a dollar a day, an average savings of nearly 40%.
4. **Special Fare Promotions-**
 - a. **Family Weekends:** Every Saturday & Sunday, two children 18 and under ride free with any paying passenger.
 - b. **Friends Ride Free:** On the following Holidays,
 - ✓ Memorial Day,
 - ✓ Independence Day,
 - ✓ Labor Day,
 - ✓ Thanksgiving,
 - ✓ Christmas, and
 - ✓ New Years Day

Each paying passenger can bring a friend free on County Transit, MTS Contract Service, San Diego Transit and San Diego Trolley.

Medellín, Colombia

5. **El Metro te recrea:** Program designed for groups of 25 people and works with reservations. Each activity includes a different program and schedule:



- a. **Zoológico Santafé:** the ticket is for children and adults and includes a round-trip, zoo ticket, guide tour, and a ecologic video.
- b. **Jardín Botánico:** the ticket is for children and adults and includes a round-trip, zoo ticket, guide tour, an ecologic video, an ecologic train, and "planta mascota".
- c. **Parque Norte:** the ticket is for children and adults and includes a round-trip, 5 mechanics attractions.

Czech Republic (formerly Czechoslovakia)

6. **Low Fares:** monthly pass for \$7.00 and annual pass for \$57.00

Buenos Aires, Argentina

7. **"Underground Mythology":** The campaign consists of promoting a tale about the use of the system, and tries to improve the positioning of the Subway among non-users and to generate an additional relationship among regular users apart from the service itself.
8. **"Bring your kids to travel by Subway for free ":** Every day children under 6 years old travel free of charge. In addition, on weekends and holidays 2 kids up to 12 years old can also travel by Subway free of charge. In both cases, children must be accompanied by an adult to go into the Subway Network.
9. **Child's Day "Two tokens in exchange for a toy":** The purpose of this effort was to collect toys to be given out to needy children.
10. **IV National and International Book Fair of New Authors:** This kind of activities attracts people to visit the stations not only for riding in the system but for enjoying different activities. This helps to create a good relationship between the community and the system.

Dallas, Texas

11. **Free Parking:** available at many rail stations.

12. **Low prices:** the regular fares are \$1.00 for adults and 50 cents for disabled persons, senior citizens and children under 12. Also, between certain points and for limited time all passengers can ride for 50 cents.

13. **Fares:**

- a. **Basic One-day:** \$1.00 for local bus and rail service and \$2.00 for Premium Express bus service between downtown Dallas and free park & ride facilities.
- b. **Monthly pass:** provides unlimited rides for just \$30, a real deal for commuters.
- c. **Annual pass:** THE ANNUAL E-Pass: THE ULTIMATE EMPLOYEE BENEFIT offers the convenient E-Pass, a low-cost transit pass employers can buy for every employee. Depending on the participating company location and profile, each E-Pass costs employers as little \$49 a year, and it allows the employee to ride every day, all year long.

Croydon, UK

14. **Be a child at Christmas:** Adults pay children fare on selected days for Christmas shopping.

15. **Free Screensavers-** they have a Free Download Screensaver on their Homepage.

Mexico City, Mexico

16. **"The Metro, a place for culture" program:** this program basically turns some areas of the stations into galleries and museums, helping to attract people.
17. **"The Metro Virtual Museum":** this museum is another effort for attracting people to the train system. Mexico City is the first city on implementing a strategy like these.

18. **"ExpoMetro"**: Permanent exposition that presents, in a exciting and fun way, the evolution of the Metro. It presents the planning, the technologic development through the years, and every detail that pass unnoticed caused by the routine of life.

Amsterdam, Netherlands

19. **Free Screensavers-** They have a Free Download Screensaver on their Homepage.

Public policy changes

United States, General

1. **Commuter Choice Program:** Refer to recent changes to the Internal Revenue Code 26 USC 132f which permits employers to offer a tax-free benefit to commute to work by methods other than driving alone.
2. **Job Access and Reverse Commute Grants:** These grants, totaling \$73 million dollars for more than 200 communities in 39 states and the District of Columbia, include funding for large cities, suburban communities, and rural areas to help states and localities support new or expanded transportation services.

Czech Republic (formerly Czechoslovakia)

3. **Government Public Policy:**
 - a. **Controlling the increasing in use of automobile:** sharply restricted auto use.
 - b. **Subsidies:** for maintaining low fares and enabling service improvements.
 - c. **Restrictive positions:** such as high taxes on gasoline and restricted parking in central cities.

Preliminary evaluation of strategies

- After classifying all the strategies found, it is important to make some conclusions of the data gathered. An important fact is the strategies used mostly are under the *marketing and promotions* category. From a total of 38 strategies found 20 where from the *marketing and promotions* category, for a 53%. The second most common strategy was the ones under the *service improvements* category, with a 34% of all the strategies. Another important fact is that under the *information to customers* category (5%), is a strategy that almost every train system uses it, a web-site. I found that a web-site will be a very good tool for providing the customer with different information like maps, fares, news & special offers, statistics & technical data, links, and contacts. Even some of them have real-time information on their web-sites, with the latest information on the performance of the system. The least used strategy is the *public policy changes* category (8%), this is understandable because usually a change on public policy tends to be very expensive and take too long. In conclusion the *marketing and promotions*, and the *information to customers* strategies are the most used actually. In a preliminary evaluation this fact will make me believe that in Puerto Rico's train system the efforts should be directed on that direction, along with the implementation of a good web-site.
- The next step on this research will be the development of a questionnaire for trying to capture the San Juan Metropolitan area population voice. This will give me ideas about which are the concerns and demands that the potential customers will have for using the Tren Urbano. After the survey and the evaluation of strategies I will be able to provide an action plan for attracting choice riders to use the Tren Urbano, and concluding this research.

Schedule

The schedule for the project is 10 months. The programming of the specific activities is shown in Table 2. Actually this project is running on time and the preliminary evaluation of strategies, which can apply to Tren Urbano, has been performed.

Table 2: Proposed Programming Activities

	2000					2001				
Tasks	8	9	10	11	12	1	2	3	4	5
Search for different type of riders	■	■								
Search for different strategies for attracting riders		■								
Search for cities with comparable and successful train systems			■	■	■					
Preliminary evaluation of which strategies can apply to Tren Urbano				■	■					
Develop a questionnaire and perform a survey						■				
Record all the data obtained from the prospective passengers							■	■	■	
Compare and select the strategies that can apply to Tren Urbano								■	■	■
Recommend the best strategies for attracting choice riders to Tren Urbano										■

References

1. *Building Transit Ridership* TCRP 27, Transportation Research Board, National Academy Press, Washington, D.C. (1997)
2. *Transit Capacity and Quality of Service Manual*, First Edition, Transportation Research Board, Washington D.C. (1999)
3. *1996 Transit Fact Book*, American Public Transit Association, Washington D.C. (1996)

Internet:

< <http://trolleycar.org/> >

The New Electric Railway Journal
NNERJ Menu
Rail Info for U.S. Cities

< <http://www.vtpi.org/> >

Victoria Transport Policy Institute
Automobile Dependency and Transportation Diversity
"The Costs of Automobile Dependency and the Benefits of Balanced Transportation"

< <http://www.lrtat.org/links.html> >

Light Rail, Tramway, and Urban Transit Links
A comprehensive compendium of links to other sites concerned with light rail, tramways, urban transit systems, transport policies, and transit heritage.

< <http://www.dart.org/home.htm> >

Dallas Area Rapid Transit
Dallas, United States of America
Information on Dallas strategies to promote transit ridership.

< <http://www.tramlink.net/menu.htm> >

Croydon Tramlink
Croydon, United Kingdom
Information and News on Croydon Tramlink system.

< http://www.carfree.com/fix_trans.html >

Carfree

< <http://www.alcaldiabogota.gov.co/movili.htm> >

Metro Bogota
Bogota, Colombia
Information on Metro Bogota system.

< <http://www.metrovias.com.ar/ingles/news/i-fnoved.htm> >

Buenos Aires Metrovias

Buenos Aires, Argentina

Information on Buenos Aires subway system.

< <http://www.metro.df.gob.mx/Proyectos.html> >

"Sistema de Transporte Colectivo"

Mexico City, Mexico

Information on the STC of Mexico City, one of the more efficient urban transportation system of the world.

< <http://www.apta.com/> >

American Public Transportation Association

APTA serves and leads its diverse membership through advocacy, innovation, and information sharing to strengthen and expand public transportation.

Appendix A

Strategies Example Pictures



Figure A-1: "Subtepass" is an example of a service improvement strategy.



Figure A-2: "Día del niño" an example of a marketing and promotion strategy

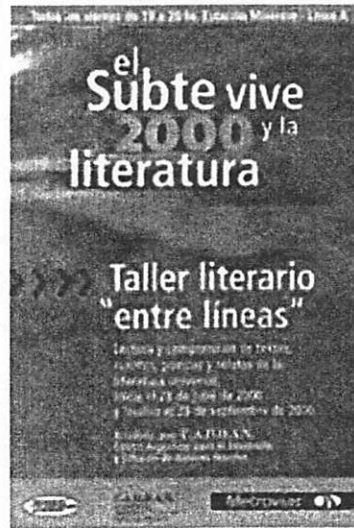


Figure A-3: Another example of marketing and promotion of a train system, “Literature contest”.



Figure A-4: Views of Venice, Italy, the number one car-free city in the world. On Venice everything is within a walking distance.