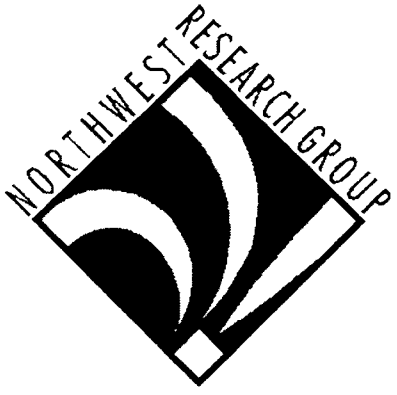
Regional Transportation Authority Chicago, IL

Customer Satisfaction Survey of Chicago Transit Authority Riders December 1995



Northwest Research Group, Inc.

Executive Summary

Key Market Segments

- More than three out of five (63%) CTA riders are frequent riders – that is, they rode the CTA five or more days in the previous week.
- Infrequent riders (those riding between one and four days in the previous week) also represent an important market segment – 37 percent of all riders.
- CTA ridership is nearly equally divided between "choice" and "dependent" riders.
  - The majority (52%) of CTA riders should be considered "choice" riders, either because they have a car available for their use but prefer transit for some purposes or they have chosen not to have a car because they prefer using transit.
  - Somewhat fewer (48%) CTA riders are dependent on public transportation either because they can't or don't know how to drive or because they do not have a car available.
- The CTA has a base of riders who have ridden the CTA for many years. Nearly half (45%) have been riding the system more than ten years, two out of three riders (66%) have been riding more than five years.
  - The agency is less effective attracting new riders to the system. Only one of ten (11.2%) riders has been riding the system one year or less.
- Three out of four (75%) riders typically use the CTA to travel to and from work or school. While most are traveling to and from work, a significant proportion ride to school.

Motivations for Using Public Transportation

- **Availability of service that is direct to their destination** is a primary reason why riders choose to ride the bus or train. Two out of three (66%) riders say that availability of service that is direct to their destination is a major factor in their decision to use the bus or train.
- An equally important factor in riders' decision to use public transportation is the **cost of parking**. Two out of three (66%) riders say that the primary reason they ride is because parking is too expensive.
- While not major factors, avoiding traffic congestion, the cost of driving, reducing stress, environmental concerns, and travel time also have some influence on riders' decision to use the bus or train. These secondary benefits offer some opportunity for marketing communication programs targeted at specific markets.

Important Factors When Riding the Bus or Train

Bus

- **All** factors are at least somewhat important to bus riders – receiving a three or higher, the midpoint of the five-point scale. The individual factors that are **most important** to bus riders include:
  - Driver operates the bus in a safe and competent manner,
  - Safety on the bus – both from crime and personal safety related to the behavior of others,
  - Safety at bus stops – again both from crime and personal safety related to the behavior of others,
  - Visibility of route names and numbers on the front of buses,
  - On-time performance,
  - Availability of a bus stop near the respondent's home, and
  - Drivers' knowledge about the system, routes and schedules.
- Individual factors that are **less important** to bus riders include:
  - Availability of seats at stops,
  - Cleanliness of bus exterior, and
  - Smoothness of ride.

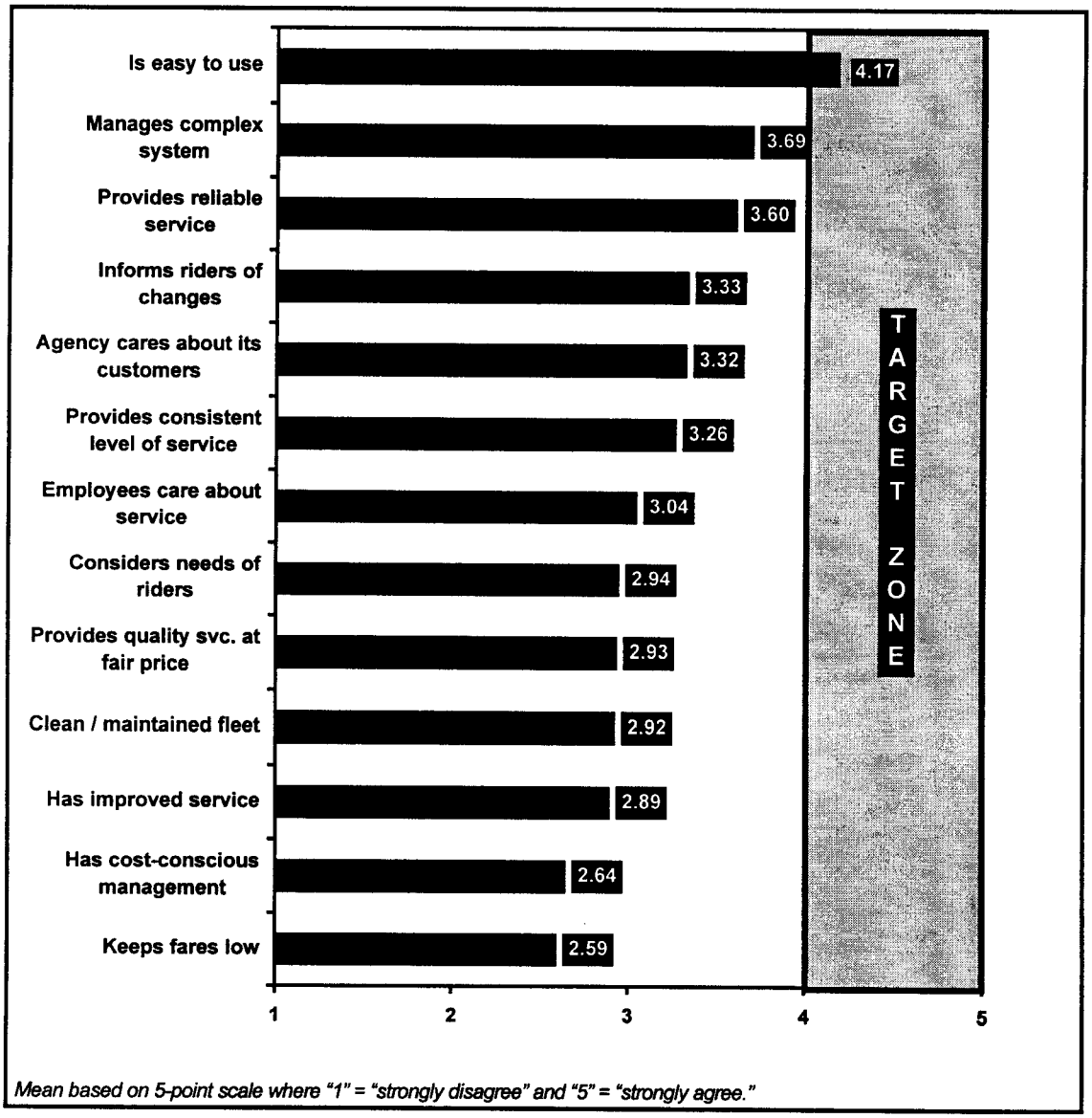
Rail

- With the exception of the availability of parking at rail stations, all attributes are at least somewhat important to train riders – receiving a three or higher, the midpoint of the five-point scale. The individual factors that are **most important** to train riders are:
  - Operator operates train in a safe and competent manner,
  - Safety from crime while riding the train,
  - Availability of a station where respondent lives,
  - On-time performance,
  - Safety from crime while getting on or off trains – that is, at the stations,
  - Time between trains,
  - Personal safety while on the train related to the behavior of others,
  - Availability of a station where respondent works,
  - Names of train stations are clearly visible from inside train, and
  - Personal safety at the stations related to the behavior of others.
- Individual factors that are least important to train riders include:
  - Availability of parking at train stations,
  - Availability of seats and benches at stations,
  - Cleanliness of train exterior,
  - Professional appearance of conductor, and
  - Comfort of seats on the train.

General Perceptions of the CTA

Respondents were asked the extent to which they agreed or disagreed with thirteen statements that people might use to describe the CTA. Based on the premise that an agency should strive for excellence, a "target zone" was established. The desired "target zone" would be a mean score of four or greater. This is achieved only when the majority of respondents strongly agree with a statement about the agency and few respondents give the agency scores below a four (that is, have no opinion or disagree with the statement).

- Riders somewhat agree the CTA is easy to use, effectively manages a complex system, and provides reliable service. However, with the exception of ease of use, even these descriptive statements receive a mean rating outside the target zone – that is, agreement ranging from agree to strongly agree.
  - However, they feel the CTA does not try to keep fares as low as possible and does not have a cost-conscious / efficient management.



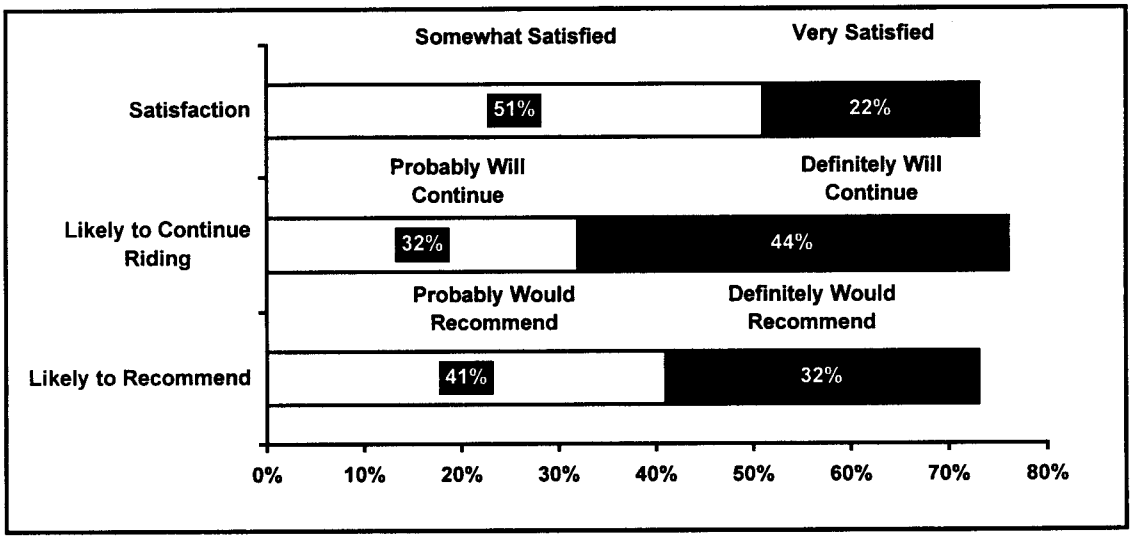
Mean based on 5-point scale where "1" = "strongly disagree" and "5" = "strongly agree."

Service Quality and Customer Loyalty

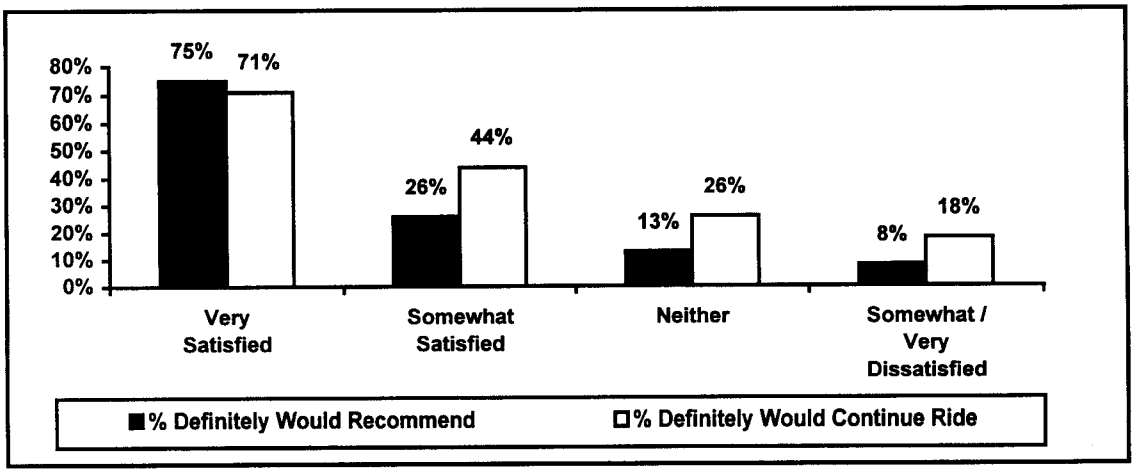
- The majority (73%) of all riders are satisfied with riding CTA buses and trains. However, more riders are only "somewhat satisfied" than are "very satisfied." Literature on customer satisfaction suggests that except in a few rare instances, complete customer satisfaction is the key to securing customer loyalty and generating superior long-term financial performance.

- More than three out of four (76%) riders are likely to continue using CTA buses and trains. Moreover, more "definitely will continue" riding than "maybe will continue" riding.

    - Moreover, nearly three out of four (73%) would recommend riding CTA buses and trains to a friend, family member, or coworker. However, fewer "definitely would recommend" riding than "probably would recommend" riding.



- There is a strong linear relationship between rider satisfaction and loyalty. Riders who are "very satisfied" are almost twice as likely as those who are only "somewhat satisfied" to suggest they "definitely would recommend" riding the CTA to a friend, family member, or coworker. While somewhat less pronounced, riders who are "very satisfied" also are more likely than those who are only "somewhat satisfied" to say they "definitely will continue" riding the CTA.



A customer loyalty index score was created by summing the respondents' answers to three questions regarding satisfaction and loyalty.

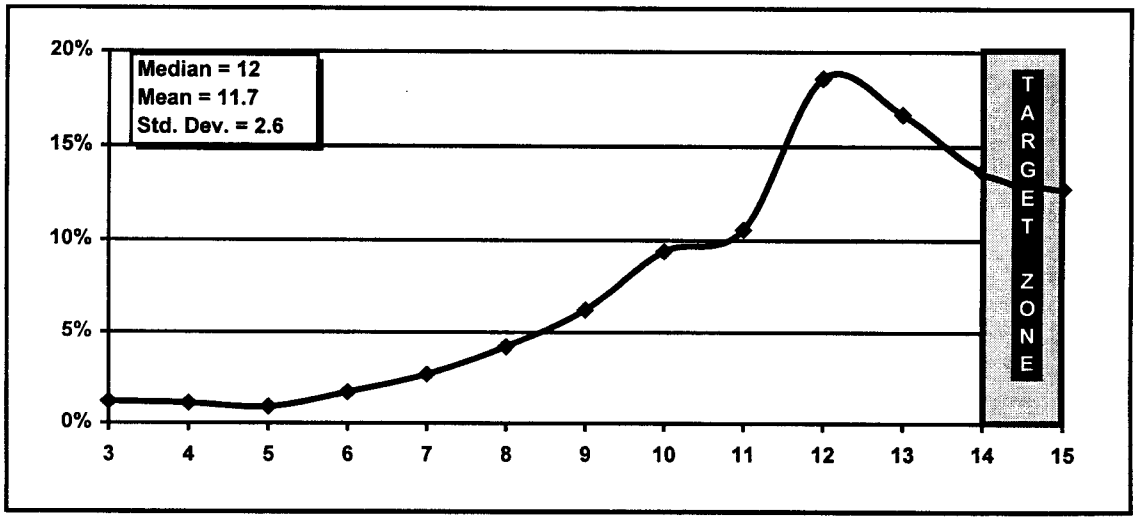
1) Overall, how satisfied are you with riding CTA buses / trains? (1 = "very dissatisfied"; 5 = "very satisfied")

2) How likely are you to continue to use CTA buses / trains in the future? (1 = "definitely will not continue riding"; 5 = "definitely will continue riding")

3) How likely would you be to recommend CTA buses / trains to a family member, friend, or coworker? (1 = "definitely would not recommend"; 5 = "definitely would recommend")

The possible range of scores, therefore, is from "3" to "15" – a "perfect" score. A "target zone" was set between fourteen and fifteen. This may seem to be an unrealistically high figure. However, a lower score than fourteen means that the respondent gave a four or less to at least two items or that the respondent gave a score of three or less to at least one item. Customer satisfaction literature suggests that only a truly satisfied customer can be considered a truly loyal customer and one that offers transit agencies the greatest promise of enhanced revenues and reduced operating costs. Moreover, research has shown that respondents tend to skew their responses toward the positive end of performance scales, rarely giving below average or poor scores except in those cases where service quality is extremely poor.

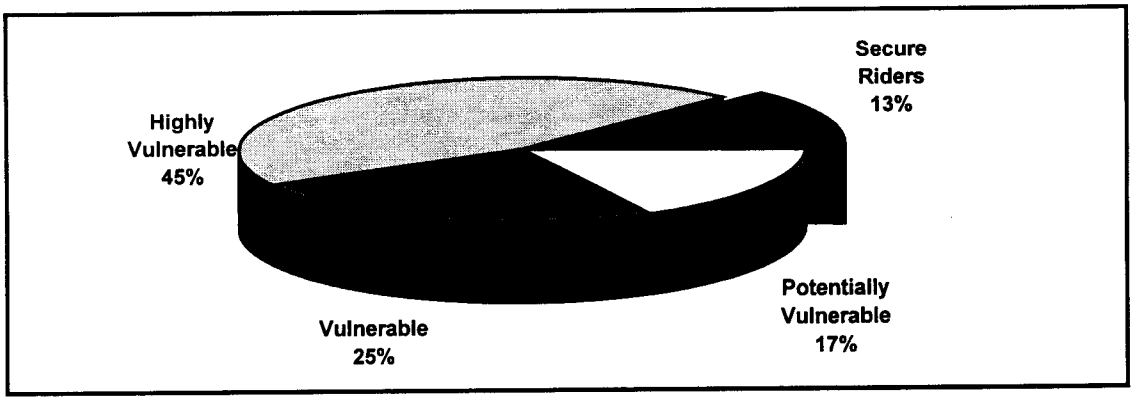
- The mean index score – 11.7 – is substantially below the target zone – between fourteen and fifteen. Moreover, 29 percent of all riders have a loyalty index of ten or lower; 50 percent have a loyalty index of twelve or lower, and 73 percent have a loyalty index of thirteen or lower. Only 27 percent of all riders have a loyalty index within the target zone. CTA should strive for achieving service quality at a level such that the majority of respondents say the service is excellent, they are definitely will continue riding, and they definitely would recommend riding CTA to a friend, relative, coworker. Only these responses should be considered "good enough" when thinking about service quality.



Responses to these three questions also were used to identify four customer loyalty segments ranging from those who are very satisfied, definitely will continue riding, and definitely will recommend riding – "**secure**" riders – to those who are not very satisfied, may or may not continue riding, and may or may not recommend riding – "highly vulnerable" riders. Again, while this represents a relatively strict criteria for establishing the difference between a secure and vulnerable rider, any person who is not completely satisfied with the system should be considered at least

potentially vulnerable. The objective over the years should be to increase the proportion of respondents who are completely satisfied with the CTA.

- Only one out of eight (13%) of all CTA riders can be considered "secure riders" – that is, they are both very satisfied with and loyal to the CTA. At the present time, most riders (70%) should be considered "vulnerable" riders in that they gave CTA the highest score to only one or none of the questions that determine customer loyalty. An additional 17 percent are "potentially vulnerable."



CTA Performance

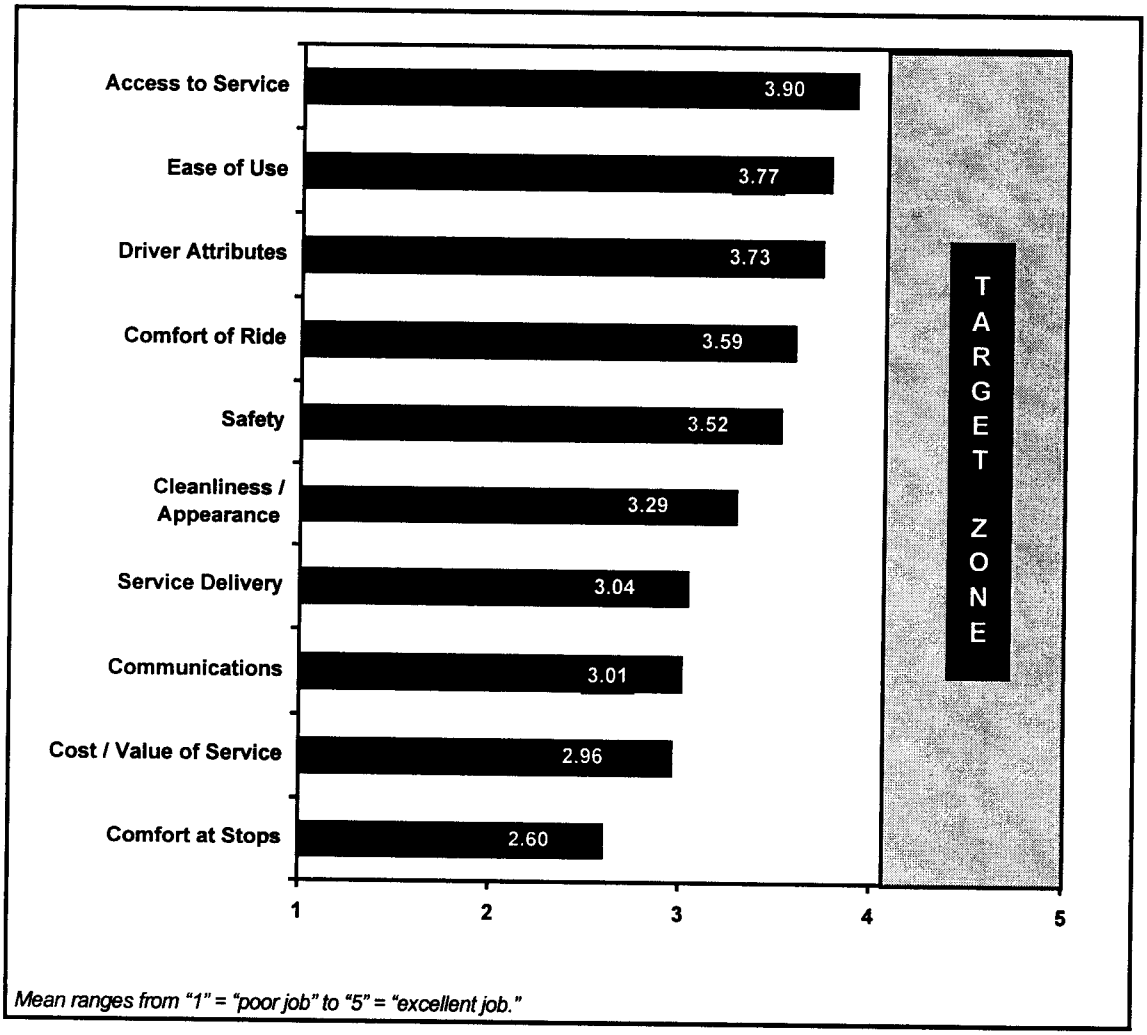
Respondents evaluated CTA's performance on the same factors that were measured for their importance in deciding to ride the bus or train. Responses were recorded on a five-point scale where "1" meant CTA is doing a "poor job" and "5" meant CTA is doing an "excellent job." While riders do look at very specific aspects of service, they also tend to group individual aspects of service together into broader dimensions. A statistical procedure was used to understand how customers might group attributes together and to identify the underlying dimensions on which customers evaluate transit service. See page 58 for a description of the statistical procedure used.

A performance score then was computed for each dimension. This score ranges from "1" meaning a "poor job" to "5" meaning an "excellent job." A "target zone" for performance is established as a score ranging between four (4) and five (5). This performance rating would be achieved if the majority of respondents give the agency ratings greater than four for all variables included in the dimension and few respondents give the agency low ratings (three or less).

Bus

- Bus riders evaluate the CTA on ten basic dimensions. Current CTA performance falls outside the target zone – between four and five – on all dimensions. Bus riders give the CTA the highest ratings for:
  - Access to service (e.g., availability of stop where live or work, ease of getting information, ease of getting tokens),
  - Ease of use (e.g., ease of paying fare, visibility of route names / numbers on outside of bus, and travel time by bus), and
  - Driver attributes (e.g., driver's knowledge, courtesy, professional appearance, and safe operation of bus).

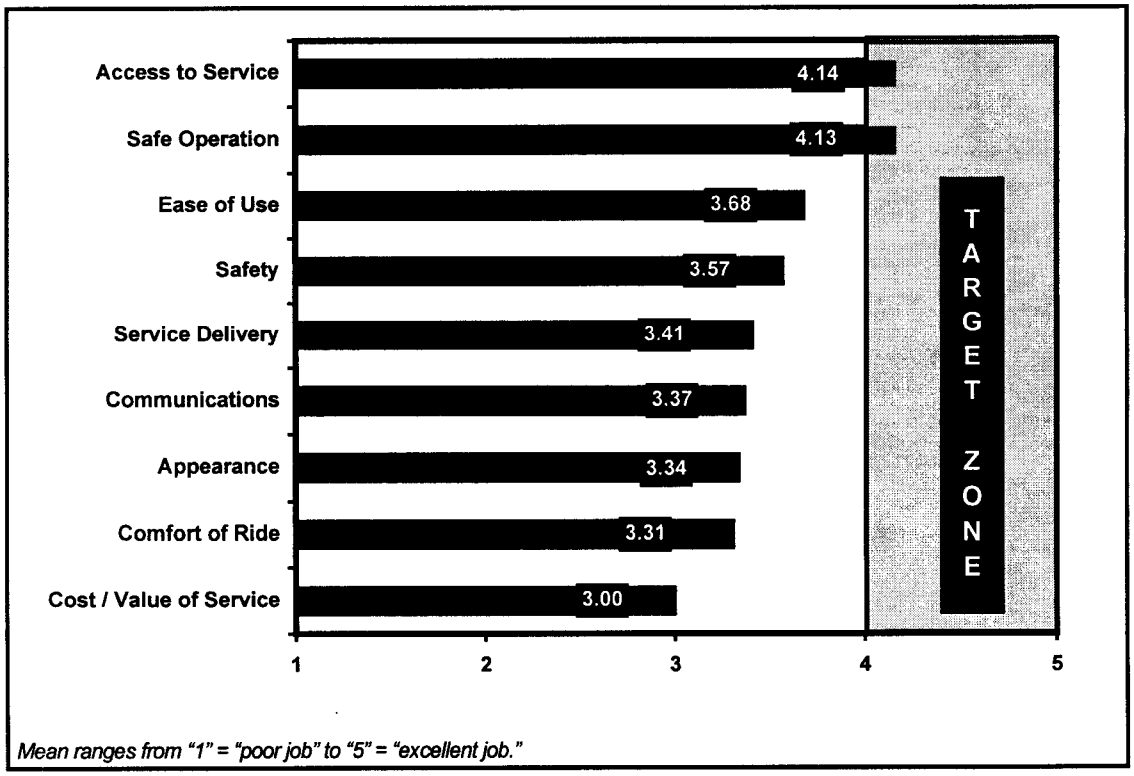
- Bus riders give the CTA the lowest ratings for:
  - Comfort at stops (e.g., availability of shelters and/or seats at stops),
  - Cost / value of service (e.g., cost of one-way ride, cost of transfer, value of service for fare paid, cost of monthly pass),
  - Communications (e.g., availability of printed schedules for all routes, clear and timely stop announcements), and
  - Service delivery (e.g., time between buses, on-time performance, knowing what time next bus arrives).



- Statistical analysis of these factors indicates that four of the ten factors have the greatest influence on customer loyalty. Improvements in these areas are likely to have the most impact on customer loyalty. These include:
  - Cost / value of service,
  - Ease of use,
  - Service delivery, and
  - Personal safety and security.

Rail

- Train riders evaluate service on nine basic dimensions. Current CTA performance falls outside the target zone – between four and five – for all but two factors – access to service and safe operation of the trains.
- Train riders give the CTA the lowest ratings for:
  - Cost / value of service (e.g., cost of one-way ride, cost of transfer, value of service for fare paid, cost of monthly pass),
  - Comfort of ride (e.g., availability of seats on the train, comfortable temperature, availability of grab bars and hand rails),
  - Appearance of trains (e.g., cleanliness, comfort of seats, trains / stations free of graffiti, professional appearance of conductor),
  - Communications (e.g., courtesy / helpfulness of station agents, availability of information at stations, clear / timely stop announcements, availability of printed schedules(, and
  - Service delivery (e.g., time between trains, wait time when transferring, on-time performance, ease of making connections, travel time).



Mean ranges from "1" = "poor job" to "5" = "excellent job."

- Statistical analysis of these factors indicates that four of the nine factors have the greatest influence on customer loyalty. Again, improvements in these areas are likely to have the most impact on customer satisfaction and loyalty. These factors include:
  - Cost / value of service,
  - Service delivery,
  - Safe operation of the train, and
  - Personal safety and security.

Possible Strategies to Improve Customer Loyalty

An important function of customer satisfaction research is to provide insight into how to best allocate resources and to identify strategies to improve customer loyalty. As noted, each of the broad dimensions of performance described above contain two or more specific elements of service. Analysis focused on identifying those specific elements of service within these broad dimensions that should be the focus of quality improvement efforts.

Bus

- CTA's target improvement opportunities rest primarily in the areas of improving value through improved service delivery and some possible fare restructuring. Specific areas on which to focus improvement efforts are:
  - On-time performance,
  - Knowing what time next bus arrives,
  - Time between buses,
  - Wait time when transferring, and
  - Travel time by bus.
- Improvements in these areas should be made while maintaining the current cost of a one-way ride. Consideration also should be given to increasing value by examining current transfer policies and discounting the price of the monthly pass.

Rail

- Like bus travel, CTA's target improvement opportunities rest primarily in the areas of improving value through improved service delivery, personal safety, and some possible fare restructuring. The most important areas on which to focus improvement efforts are:
  - Knowing what time next train arrives,
  - Wait time when transferring, and
  - Time between trains.
- Focus also should be on improving and/or maintaining personal safety while waiting for and/or riding the trains both from crime and as it relates to the behavior of others.
- Again, improvements in these areas should be made while maintaining the current cost of a one-way ride. Examining current transfer policies and discounting the price of the monthly pass may offer some potential for adding value to the train riding experience.

Table of Contents

Contents

List of Figures

List of Tables

Chapter

1

Project Overview

Introduction

Customer satisfaction is a growing concern to transit agencies throughout the United States for three primary reasons:

1) Current and potential riders have greater choices today than ever before. As a result, they are becoming aggressive in demanding products and services that meet or exceed their expectations. Outstanding performance is required. It is critical to view products and services offered from the **customer's perspective**.

2) Truly satisfied customers offer transit agencies a promise of enhanced revenues and reduced operating costs.

3) Customer satisfaction is an integral part of total quality management. The customer drives total quality management by establishing expectations, standards, and performance requirements. Total quality management focuses on viewing products and services as solutions to customer problems.

Customer satisfaction research focuses on two key issues:

1) Understanding the expectations and requirements of the customer.

2) Determining how well the agency is succeeding in satisfying these expectations and requirements.

Methodology

Research Design

An effective customer satisfaction measurement system must be able to determine how best to improve customer perceptions of product and service quality. Actionable customer satisfaction research provides the information that transit managers need to make changes in the processes that affect customer perceptions of service quality. Specifically, an effective customer satisfaction measurement program:

1) Identifies the market segments, customer, and potential customer groups that are most likely to be affected by service quality improvements,

2) Determines the critical performance attributes that result in customer satisfaction,

3) Is based on a research design and methodology that yields reliable and statistically valid data and analyses upon which to base business decisions,

4) Assesses the performance of the agency,

5) Demonstrates the relative impact of the various satisfiers and dissatisfers on overall perceptions of service quality at an agency, and

6) Identifies actions that will lead to increased satisfaction and customer loyalty.

To satisfy these objectives, the research was conducted in two phases:

1) Exploratory research using focus group interviews, and

2) A telephone survey of CTA riders.

Exploratory Research

A critical component of a customer satisfaction research program is concerned with determining the extent to which existing products and services meet customers' needs, wants, and expectations. Meeting customer expectations results in satisfaction. Exceeding expectations may create strong customer loyalty. Conversely, not meeting expectations results in dissatisfaction and, potentially, rider attrition.

We formalize expectations as a set of attributes that capture the important issues by which customers evaluate a product, service, or company. These sets of attributes will differ by industry and by company. Therefore, exploratory research was conducted to identify those attributes that are relevant to CTA riders.

When identifying these attributes, two major guidelines were used.

1) The performance attributes must be important to the customer. An attribute involving "state-of-the-art maintenance and bus storage facilities" may represent a major investment by a transit agency but be unimportant to the customer. Talking to customers is the only way to guarantee the selection of attributes that are important to the customer.

2) The performance attributes must be under the control and influence of the agency. Customer satisfaction research creates expectations – both internally in the organization and externally with customers – that change and/or improvements are forthcoming. Scarce resources and effort should not be spent on areas that cannot or will not be changed by an agency.

When determining the critical performance attributes that should be included as part of a customer satisfaction measurement tool, it is important to look at the issue from two perspectives – the internal, or agency, perspective and the external, or customer, perspective. To accomplish this, four focus groups were conducted. The first two focus groups were conducted with CTA employees. The other groups were conducted with CTA riders.

Internal Focus Groups

Agency knowledge was the first source of information about critical performance attributes. Employees know their work and their customers. Often, they are also customers. Interviews with CTA management, drivers, supervisors, customer service representatives, maintenance personnel,

etc. were important both to obtain information and to encourage involvement in and acceptance of the research process. The benefits of this internal exploratory research are many and helped the agency to:

- Finalize the study objectives, design, and survey questionnaire;
- Communicate more effectively with the end users of the research in reports, presentations, etc.;
- Make meaningful and actionable recommendations for quality improvement;
- Make recommendations that are consistent with the agency's position, direction, strategy, and culture; and
- Achieve organizational buy-in to the program.

Two focus groups were conducted:

- Group One consisted of "front line employees" – that is, drivers, instructors, maintenance personnel, etc.
- Group Two consisted of support personnel.

External Focus Groups

While company knowledge is the first source of knowledge about critical performance attributes, the next step should be to understand perceptions of organizational performance from the customer's perspective. To accomplish this goal, there is no substitute for talking directly with the customers.

Two focus groups with current CTA riders were conducted.

- Group One was comprised of eight CTA bus riders. A mix of persons representing different demographic characteristics were recruited. Also, a mix of frequent and infrequent riders were included.
- Group Two was similar, except that it was comprised of nine CTA rail riders.

The primary purpose of this research was to identify the "critical incidents" during the interaction between the customer and the transit agency that are the key determinants of the customer's perception of service quality and performance. "Critical incidents" are those aspects of agency performance that customers come in contact with directly. These incidents often define staff performance – helpfulness of drivers or courtesy of phone personnel – and product quality – travel time and safe bus operation. A number of questioning techniques were used to probe deeply into identifying a complete list of critical incidents. These critical incidents became the attributes in the final survey questionnaire.

Telephone Survey

The telephone survey consisted of 817 interviews with current CTA riders drawn from a random sample of households within the CTA service area. Interviews were conducted between November 2 and November 21, 1995. Interviews were conducted daily until 9:00 p.m. and during

the afternoon and early evening hours on weekends. Interviews lasted an average of twenty minutes.

Current CTA riders are defined as:

> *Individuals age sixteen and over who had ridden the CTA system – either bus, rail, or both – at least once in the week prior to being interviewed.*

The sample was stratified by mode. That is, the population was divided into groups based on whether the respondent rode the bus only, rode the train only, or rode both the bus and train. Those who rode both the bus and train were randomly assigned to one of two groups and asked to focus on either bus or train travel. This procedure insured that an approximately equal number of interviews were conducted for train and bus travel. The resulting cell sizes – approximately 400 per mode – are large enough to allow for reliable analysis at each subgroup level.

Questionnaire

The questionnaire contained approximately 254 questions.

The questionnaire used a variety of question formats, including closed single and multiple-response questions for all categorical data. In those situations where all possible responses were not known, an "other" category was included. These results were then reviewed and, where appropriate, postcoded into the data base. All attitude and evaluation questions used scaled response formats. Scales were typically five points in length. One open-ended question was included to provide further clarification of qualitative data on service quality. Based on a review of these responses, a code list was developed to capture the range of responses. Results from this open-ended question were then coded and entered into the respondent data base.

The survey instrument contains the following major sections:

- Screening and introductory questions to determine rider status and primary transit mode.
- General ridership questions, including dependence on transit, trip purpose, transit travel patterns, and fare payment.
- Motivations for using public transportation.
- General perceptions of CTA.
- Expectations for service as measured by the importance of forty-two bus or forty-four rail factors in deciding whether to ride the bus or train.
- Satisfaction with service delivery on these same factors.
- Factors affecting riders' feelings of safety and security while riding and/or waiting for the bus or train.
- Loyalty toward CTA, as measured by overall satisfaction with CTA, likelihood of continuing to use CTA, and likelihood of recommending CTA to a friend.
- Demographic characteristics.

Because of the number of factors identified during the exploratory research for which measurements of service quality were needed, two strategies were used to keep the length of the interview reasonable.

- CTA riders who only rode the bus evaluated CTA bus service only. Similarly, those who rode the train only evaluated CTA train service. Those riders who rode both the bus and train were randomly assigned to one of two groups. One group evaluated CTA bus service while the other evaluated CTA train service.

- Also, respondents were randomly assigned to one of two groups. Every respondent rated 20 factors in terms of their importance and service delivery. The remaining factors were divided in half so that each random group evaluated approximately twelve factors.

The survey was administered using computer-assisted telephone interviewing technology. The computer program automatically handled all skip and branching patterns. The average amount of time required to complete the questionnaire was twenty-one minutes. A copy of the questionnaire is included in the Appendix.

Sample Size

A total of 817 interviews was completed among a random sample of households in the CTA service area.

The research design called for interviewing an equal number of bus and train riders. To achieve this, a slightly higher proportion of train riders and those who rode both the bus and train were interviewed relative to their actual incidence in the population.

A random sample is used to insure the projectability of the results to the general population. While projectable, a random sample does not necessarily guarantee a representative sample. As data collection proceeded, it became evident that riders whose typical trip originated on Chicago's north side were being disproportionately represented. To a large extent, this was due to a higher incidence of rider households on the north side. Moreover, this occurred because of a number of nonrandom factors, including a higher incidence of households with working telephones on Chicago's north side as well a higher incidence of multiple phone lines per household and a higher incidence of non-English speaking households in some other areas.

The data were weighted to reflect the actual proportions of riders who ride the bus only, the train only, or both the bus and train. Moreover, the sample was weighted to make the final sample distribution representative to the actual incidence of riders in each of the major geographic areas. A complete description of this weighting process is included in the Appendix. This weighting process does not change the total sample size.

The number of interviews obtained and the number resulting from the weighting process by area and by mode are shown in the following table.

TABLE 1
FINAL SAMPLE SIZE

	Bus Only		Train Only		Mixed Mode	
	Obtained	*Weighted*	*Obtained*	*Weighted*	*Obtained*	*Weighted*
Downtown	3	10	2	3	5	7
North	73	84	94	67	128	83
Northwest	32	39	31	29	54	45
Suburbs	14	15	50	42	39	30
West	24	32	12	9	17	13
Southwest	15	36	6	8	26	36
South	57	94	5	7	120	120
	218	310	200	165	389	334

All results in this report are based on the weighted sample data. Weighted cell sizes are shown. Unweighted cell sizes, however, are used when inferring statistical reliability.

Report Format

The report is organized by major topic area. Tables and charts provide supporting data. Complete documentation of the data analysis (in the form of banners) is kept separately. Three sets of banners were run providing insight into how key subgroups (e.g., men and women) responded to each question. A sample page from each set of banners is included in the Appendix.

Weighted cell sizes are reported for the tables and charts. The sample sizes shown for each question in this report are the total number of weighted cases with valid responses for that question. "Don't knows" and "refusals" are counted as missing values unless "don't know" is a valid or meaningful response.

Chapter

2

Focus Group Results

The following summarizes the key findings from the focus groups. Selective quotes are included to illustrate the richness of this input. Results from the focus groups influenced the design of the survey questionnaire. They also are useful in helping to understand and interpret the survey results.

Riding Characteristics

Participants were asked to introduce themselves and describe their general use of public transportation.

- Most Group One participants (bus riders) owned a car but said they take the bus four to five days a week for work. Those who ride for non-work purposes also ride four to five times a week.

- The majority of Group Two participants (rail riders) rode both the train and the bus. Six out of nine Group Two participants rode transit four to five days a week for work. The others rode once or twice a week or less often and used it for personal business, recreation, and travel to the airport. Half of the participants did not have access to a car.

Participants also were asked to indicate the primary reasons why they used public transportation.

- The cost and/or availability of parking in downtown Chicago is the primary reason participants use public transportation instead of driving.

I use public transportation when I have to, like going downtown. You can't drive downtown, where you put your car it would cost you a fortune to park.

No parking where you're going. Or expensive parking where you're going.

- Some participants suggested that using the bus is more convenient than driving. Convenience means travel time as fast or faster than driving and/or having convenient access to public transportation both near their home and near their destination.

I take the "El" because it gets me to work quicker than when I would take the bus. It would take an hour [by bus] and the "El" will get me there in 20 minutes.

I take it because it's just a block and a half away from me and it's more convenient and like you say, it's quicker.

It's more convenient. I'm two blocks from the "El", a block from the bus. Now that I've moved to where I am, I can walk a block to the bus and I usually travel at off-peak time, so it's not very crowded and there's a bus every five minutes.

Living on King Drive is an advantage, I don't have to walk to the bus so it's kind of easier than driving a lot of times, more convenient, it's quicker during rush-hour.

- Several participants noted that if the cost of parking was not so high or if service became less convenient (for example, travel time increased and/or their route was changed so access was less convenient) and/or if they had access to a car for that trip, they would drive.

I take the bus as a last resort, you know, for the convenience, sometimes the distance or (some days) it makes it really negative to use a car. But as far as I'm concerned, the bus is a last resort.

I don't have a car. I ride the trains and the bus probably three or four times a week just taking care of business. I can't wait to stop riding the trains and the buses.

I do not have a car. I wish I had one and once I get one, I will no longer take public transportation.

Service Quality Defined

Participants were asked to define high quality service and to identify how organizations that offer high quality service demonstrate that their "customers are first."

- Among riders, **employee courtesy and professionalism** was mentioned most often as the key to good quality service. Riders want to be treated with respect. Employees should also be informed and willing to provide information to customers.

You are treated with respect.

They act like they like you, whether they do or not.

I like to sense that the people who are serving me enjoy serving me, that they feel valued, providing whatever the service is...it's a joy for them and they're participating.

They listen to a customer.

They give you their undivided attention.

They would be willing to give you whatever information that you needed, and not with an attitude. I've run into a lot of bus drivers...they just have a problem giving you any kind of information.

You can ask some for directions and they tell you they don't know. They are driving CTA. They are supposed to know!

The turnaround is that you treat each customer as an individual and as someone who is worthy of your business and as someone who is making....the reason you are there. Treating each person as an individual as opposed to a mass. If you turn it around, companies like you're talking about have that attitude where they give the customer respect and they treat them well and they help them with whatever they need.

Regardless of how many customers are being served, each one that walks through leaves feeling that they were taken care of.

- Like riders, employees suggested that **employee courtesy and professionalism** is extremely important. However, front-line employees feel that customers play a role in this in the way that they react to employees.

Courtesy, treat them the way you want to be treated.

It's very important to listen to our customers, we have to know and understand what they want.

Showing pride in the jobs that we do, even in ourselves and our uniforms, our appearance and our overall attitude about the job.

One of the things that I see in riding the bus is the non-seated customers are really impressed with operators who are patient, who are friendly, who take the time to explain things to them, who take the time to address perhaps their handicap needs, getting closer to the curb, etc. That's one of the things I've seen the customers are very impressed with is that operator that takes out the time to be polite and caring and patient. But it works the other way around also.

The customer is what makes it operate. Without the customer, there's nobody. But I also think that passengers...we should have what we call a passenger day. The passenger can spend a day with one of the employees and understand the flip side. That would give them a better understanding of what we deal with.

When those customers board that bus, that operator is unshielded, and you cannot put the "customer first" right there until the customer is willing to do their part. Now it's open season on those operators, anybody who's got any kind of problem, there's your scapegoat right there.

Politeness and kindness will go a long way with resolving whatever problems you might be having in providing that quality service.

I think they're also looking for respect– in a lot of situations you don't get that, and I think the public needs to be respected.

- Riders also suggested that **consistency of service** is a primary attribute that defines high quality service.

I think consistency is really important, knowing what to expect, knowing beforehand the type of service you can expect. Good service, it's what keeps you coming back.

- Finally, riders suggested that **taking that "extra step"** and/or recognizing special circumstances and responding accordingly rather than operating strictly by the rules is an important component of high quality service. Employees suggested that current rules and policies and/or fear of being "written up" keep them from taking this extra step.

[Rider] Going the extra step. [For example doing] something that says "Okay, I've got a job to do, but this customer needs help...you are now a priority and I'm going to make sure that you get what you need."

[Employee] I understand it and I can agree with you on this emergency transfer business, but I swear, in training, they tell you there's only major delays and wrong busses, that's it. If I get a spotter on my bus and he gives me a sob story about a transfer, or if he sees somebody else give it to me and I give somebody a transfer, I can literally be written up for that.

[Employee] Do not give us a stressful environment to work in. If I go in, in the morning and they call me in and they charge me with running two minutes hot, I might have an evil attitude the rest of the day. When you put the operator into that kind of stressful environment, it's going to trickle down into when he goes to work.

Service Expectations

Participants were asked to identify their expectations for service. This was done as a brainstorming exercise where all expectations were written down on index cards. Participants then sorted the cards into categories that defined broader dimensions of service. Responses were generally consistent across the employee and rider groups.

Following are the broad categories into which most statements were grouped as well as samples of the statements made under each category.

- Several factors related to service design were identified. They related primarily to scheduling of service, operational issues, and transferring.
  - First and foremost, employees and riders agreed that **service should be dependable.** That is, buses and trains should be on time.

[Rider] Pace buses are good. They have a schedule and they keep it! They are either five minutes early or five minutes late and no more.

[Rider] It's very important to have a schedule like the Pace does. So people can get to work on time or wherever they're going. You can never depend on the bus, never.

[Rider] I expect the bus to be on time. Enough buses on the line.

[Employee] It would have to be with the regularity of the service, the intervals of the buses, and the trains.

[Employee] They're promised rapid transit but they don't get it.

- **Schedules should be balanced** so buses and trains don't come all at once.

[Rider] It really frustrates me when I see four or five trains go north and I'm trying to go south. So, I mean, they have to work with the scheduling with the trains.

[Rider] Okay why would they have three buses in a row, you're standing there waiting and nothing's there, you're waiting for a half hour...maybe forty-five minutes and then three buses come in a row. So somebody messed up.

[Employee] They expect more buses out there with more frequent service.

- Many would like to see a **transfer system that is more equitable.**

[Rider] I'd like to see them change the transfer, where you can use it coming down one route and going back on the same route.

[Rider] I would expect just a rational transfer system like most cities, that makes sense, that's easy to use.

[Rider] You can use the transfers and you can ride this way, but you can't ride back. If you're going a few blocks and don't want to walk, and along comes the bus , you can't use a transfer and come back that second time.

[Employee] I also think passengers should get more time on a transfer. You give the passengers three rides, sometimes passengers need four rides to go to work, they get three rides and then they have to re-purchase.

[Employee] I propose that we eliminate the transfer and go with a straight fee.

- Two dimensions related to drivers and conductors were identified.
  - Drivers and conductors should be **courteous, professional, and helpful**.

[Rider] Another thing I like to see is bus drivers who have a sense of humor about their job, like I remember the first time I came to Chicago, I was down in Grant Park and the bus driver said, "Step right up folks and welcome to the Love Bus." So more love buses...more bus drivers like that, they really just enjoy what they're doing.

[Rider] Courteous drivers. If you get on and say good-morning [they should] at least say good-morning.

[Rider] ...When I got on the next bus, the bus driver told me that the transfer was expired...because the former bus driver punched it wrong. And I was like, no, I need it to get on another bus. I had to put another token in there so I could ride that bus and I was so ticked. Why can't the bus driver just say, "Oh come on, just get on the bus"?

[Rider] And call out the stops. A lot of times they don't even call out the stops.... and when they do you can't understand them.

[Rider] The conductors should give the passengers more time, when they're running for the "El", they see them coming and they close the doors. I know only so many can get on it, but. . .

[Rider] I expect a presentable bus driver. Some of them have their shirts open, hats back, kind of laid back, but in a service oriented profession people get the wrong impression. I expect you to look like you're about business and the business at hand, which is getting us where we're going. A lot of them just have this posture that is just offensive sometimes.

[Employee] Friendlier services...in other words, kindness, smiles, you know, courtesy.

[Employee] What passengers expect is a courteous answer when they ask a question.

[Employee] Employees that know the direction when asked...

- Drivers and conductors should be **willing to give information,** particularly if there is a delay or if a route is detouring.

[Rider] When they stop, when the "El" stops between stations and we're there for a while, tell us what the problem is, we're just sitting there and they just don't tell us what the problem up ahead is.

[Rider] Well, when I went on the bus I asked the guy, "How much is it now?" ...He looked at me like I was dumb. I said, "I'm sorry but I haven't been on a bus for like a year. Can you please tell me?" And he acted like..."you should know this stuff." And it took him like fifteen minutes [to answer] and after he got to the next corner, then he told me a dollar something.

[Rider] When routes change they don't make an announcement, they don't publicize it, I guess they just expect you to adjust to it. I think that's really, really unfair. I understand things happen and you have to readjust, then you should at least let the people know.

[Rider] Letting the customers know when they're rerouting. Post some sign saying, "We're going this way, not that way."

[Rider] Communications though, if the CTA could possibly educate their drivers a little bit more before they go on the street...

[Employee] If there's a service interruption on the street on a particular line, inform the customers how late it's going to be, when it's expected, and why...so they're at least aware of the situation.

- Buses and trains should be **clean, comfortable, and well-maintained**.
  - Both riders and employees agree that a clean interior is a primary determinant of service quality.

[Rider] I expect to get on a clean bus.

[Rider] I expect a cleaner train, some of them are just filthy.

[Employee] I'm in rail, but one of the biggest things that they do mention all the time is cleanliness. I can go on a bus and it can be spotless the minute it comes out of that yard, but one person throws a piece of paper there and now that car is dirty so one passenger comes in, sees the paper, and that car is dirty, even though it's just one single piece of paper.

[Employee] A lot of complaints from the passengers about the dirty buses or dirty trains or dirty facilities.

[Employee] We have to have clean equipment. I think it's image as well as it is consideration.

- Comfort is defined both in terms of bus amenities (heating, air conditioning, seats) and overcrowding or availability of seats.

[Rider] Heated buses.

[Rider] Air conditioned buses in the summer.

[Rider] Have capacity limits on the train, how many they let on. They fill them like cattle cars.

[Rider] A lot of times there's no air, you feel like you're going to pass out, because there's too many people in one car.

[Rider] The bus, it can only hold so many people but they still keep letting people crawl on and telling you to move to the back.....There is no back I mean there's not any more room back there.

[Rider] I expect not to have to stand in the stairwell to get to work in the morning.

[Employee] But one of the other things I look at when people get on the bus, they say, I have to pay this fare and I have to stand up. That's one of their biggest concerns that I see.

[Employee] And if they pay their dollar and eighty cents for a transfer, they want to sit down, they don't want to stand up. Why is it almost always in Chicago that they don't care how crowded the buses get?

[Employee] They want some heat, and some air.

[Employee] How about more seats?

- Finally, a bus that is well-maintained and reliable is important.

[Rider] A functional bus. Air conditioned or the windows can open– you're stuffed up and there are no windows that open.

[Employee] They want a bus that works. They don't want to be riding on the expressway and it stops, because that can't happen, so be sure your equipment is safe and that it is working.

- Riders expect to feel safe from personal harm when riding and/or waiting for the train or bus.
  - Transit users would like to see more **police or security guards that are visible** to customers, rather than more CTA employees.

[Rider] More policemen patrolling.

[Rider] Visible security on the bus and trains.

[Rider] Because when people see security is visible, that deters crime, believe it or not. It deters some crime.

[Rider] Some people aren't afraid of conductors. A conductor is not going to take you off to jail if you're beating somebody up. A conductor doesn't have the authority to do that.

[Rider] The driver has enough to do without worrying about security.

[Rider] I feel more secure when I see a police officer.

[Employee] I think one of the biggest problems that I see that the passenger will relate to will be safety... not safety, but security.

[Employee] Put that conductor back so they have someone to relate to when something is wrong on that eighth car or fifth car.

[Employee] We have a security problem. We need help from the police and anybody else willing to help to try and eliminate some of the problems we have with crime.

[Employee] Unmarked [plain clothes] policemnn on the buses.

[Employee] I don't think they should be unmarked, I think they should be identifiable, because if you get on that bus and you see him there, you're secure.

  - Customers **want to feel that the drivers are on their side** and are doing something to help.

[Rider] I'm from Seattle, Washington and again, there's a feeling with the bus drivers there, that they are on your side. That they are there, the rules can be broken for the customer. Here there's a feeling that the rules are to protect the bus driver from the customer. It's almost like a contentious conflict between the customer, so I would love to have the feeling that the bus driver was on my side, that he was there with me. I've never felt that in Chicago, except on a few occasions. I've lived in many cities in America and this is the strongest city where I've felt that the bus driver was my enemy—not with me.

[Rider] I think of the drivers, when they see something going wrong they should call in. Yeah, because they let too much go by.

[Rider] I saw a lady get her purse snatched on the Madison Street bus. The guy ran out the back door, so she jumped up and she ran out after him. The bus driver sat and waited while she jumped off the bus and jumped on his back so he fell to the ground, but he [the bus driver] didn't call anybody.

- Two factors relate to passengers' expectations for information. The first deals with the availability of schedule information at stops and stations. The second deals with the ability to get information by phone.

  - **Clear, current schedules should be posted at stops.** Printed schedules and maps should be available on buses and trains.

[Rider] It took me a week to figure out when the train I needed was coming. There were no signs posted.

[Rider] I waited for an hour and a half. I was waiting for the #146 bus, I think it was the #146, or the #145 to come by, and I'm standing there at the sign where it stopped at. After and hour an a half, I began to worry, so all these other buses but my bus never came. So I finally asked the driver and he said, "It's two blocks down." In other words the sign wasn't posted right.

[Rider] One thing I expect to have is a picture on each train and on each bus that has correct fare and schedule information. And if there is a location for that, I would expect it to be fully stocked all the time by the bus driver. If there is not [a location], I'd expect the driver to have extra copies there.

[Rider] The maps, I don't know if people collect them or what, they're always gone, there's never a map.

[Rider] Why don't you guys have schedules on the buses? I think that would be very helpful to us, to CTA, because we would get out there, know what to expect, know when to expect the bus.

[Employee] Up-to-date route information.

  - Transit users want **good phone information** and are currently pleased with the service they are receiving.

[Rider] One thing I would expect is really good information when you call the system over the phone, in terms of directions and schedules, you know information over the phone to get me to use the thing, and I have to say, I've always been pleased with that, with the level of quality there.

[Rider] You call them for information and they are great.

[Rider] I wanted to make sure how to get here so I called this morning and the man was great. He was courteous and he was right on the ball with his information.

[Rider] They need to get that number more public because I've only done that once and I never knew there was a number you could call. But when I did they were excellent. I mean they were very specific and very friendly about where I needed to go and what I needed to catch.

- Finally, riders expect that the **cost of service should be in line with the "value" of the service received**.

[Rider] Price, you get on that bus and if you have to have a transfer, that's a $1.75, that's an awful lot of money– especially if you're not going very far.

[Rider] My biggest pet peeve is the fact that the train fares are so expensive and if you're a frequent user, there's no real discount for usage.

[Rider] Either lower the prices or fix the attitudes.

[Rider] Reduce the prices, they're charging way too much for the bus.

[Rider] When they have the fare increases, I'd like to see something come back for the increases.

[Rider] I really do believe that if they would reduce the passes, a lot more people would buy them because it's so convenient.

[Rider] Consistent fares, I mean they've gone through changes– they took away the passes, they brought them back, the fares have been up and down.

[Employee] Stable fare structure.

[Employee] Lower fares, more transferability.

[Employee] Livable fare structure.

[Employee] We should have a lower fare structure. It should be seventy five cents to a dollar per ride, eliminate transfers, we should go to the general assembly and ask them to subsidize the CTA at a higher rate than what they're subsidizing at this particular point of time. [Putting the] customer first would be to stabilize the fares. We've had so many fare changes that it's just unfair to a person who's not making a lot of money or a school kid who's trying to go get an education. So we should try and focus on trying to bring the fares down to a reasonable rate, eliminate the transfers.

[Employee] The thing is you can't please these people, they're getting out and paying a dollar-seventy five for a transfer and to them, it seems like a lot of money, in a sense it is, in one aspect, and in a sense it's not. It's not when you look at the total cost factor. But in a sense it is because you can't ride the same line back and forth. You're going to pay a dollar fifty one way, and a dollar fifty another way just to come back to do your shopping. That's three dollars. That's a quarter tank of gas in a sub-compact car.

Chapter

3

Survey Results

The following summarizes the key findings from the telephone survey. Charts and tables are used to highlight these key findings. Results from the telephone survey are used to support recommendations for focusing resources in key areas in order to increase customer satisfaction and loyalty.

Ridership

Incidence of Rider Households

Only those individuals who had ridden a CTA bus or train in the week before completing the survey were interviewed. However, all households that did not have an individual in the household who met the definition of a rider for this study (individuals sixteen and older who had ridden at least once in the past week) were tallied separately allowing the ability to develop an estimate of the incidence of rider households.

- Just over one out of four (26.3%) households have at least one CTA rider (had ridden at least once in the past week) aged sixteen and older in the household.
  - In prior CTA market surveys (1988, 1990, and 1993), the incidence rate for rider households (defined as having at least one CTA rider aged twelve and older in the household) was much higher – falling at 51 percent in 1993. This suggests a systematic underreporting of CTA usage in this particular survey, due in part to the inclusions of more school-age children (ages twelve to fifteen) in the earlier surveys. This does not significantly affect overall survey results, however.

TABLE 2
INCIDENCE OF RIDER HOUSEHOLDS

	n	Percent
Households With Riders / Completed An Interview	807	19.5
Households With Riders / Did Not Complete An Interview (Quota Full or Midterminate)	293	6.8
Households Without Riders	3,085	73.7
Total Households	4,185	100.0

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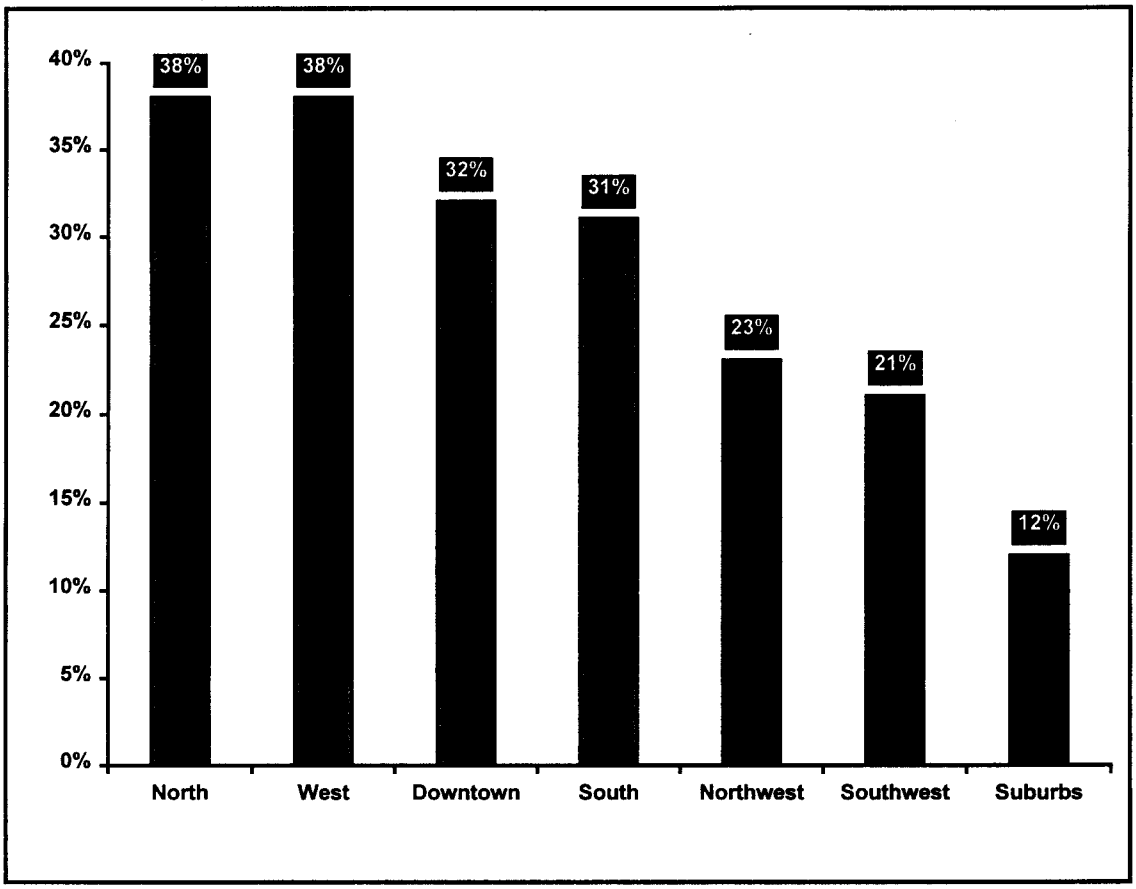
- The incidence of CTA rider households is highest on the north and west sides of Chicago, lowest in the suburbs.

  - Despite the higher average daily weekday ridership among south side riders compared with north side riders – 365,000 compared with 317,145* , respectively – the incidence of CTA rider households is lower on the south side than on the north side. This may suggest a greater incidence on the south side of transit dependent riders who take several trips daily. Moreover, this may suggest a high incidence of riders between the ages of twelve and fifteen who were not interviewed as part of this study.

FIGURE 1
INCIDENCE OF RIDER HOUSEHOLDS BY AREA OF RESIDENCE



* Ridership figures provided by CTA as of xx/xx/95.

Rider Segments

An important part of customer satisfaction research is the identification of the market segments, customer, and potential customer groups that are most likely to be affected by service quality improvements. To achieve this objective, a series of questions were included about ridership characteristics the results from which could then be used to develop market segments. Analysis in this section focuses on defining key market segments that have traditionally been used in transit planning and marketing. These include market segments based on frequency of riding, dependence on transit, length of time riding, primary trip purpose, typical mode, or trip origination.

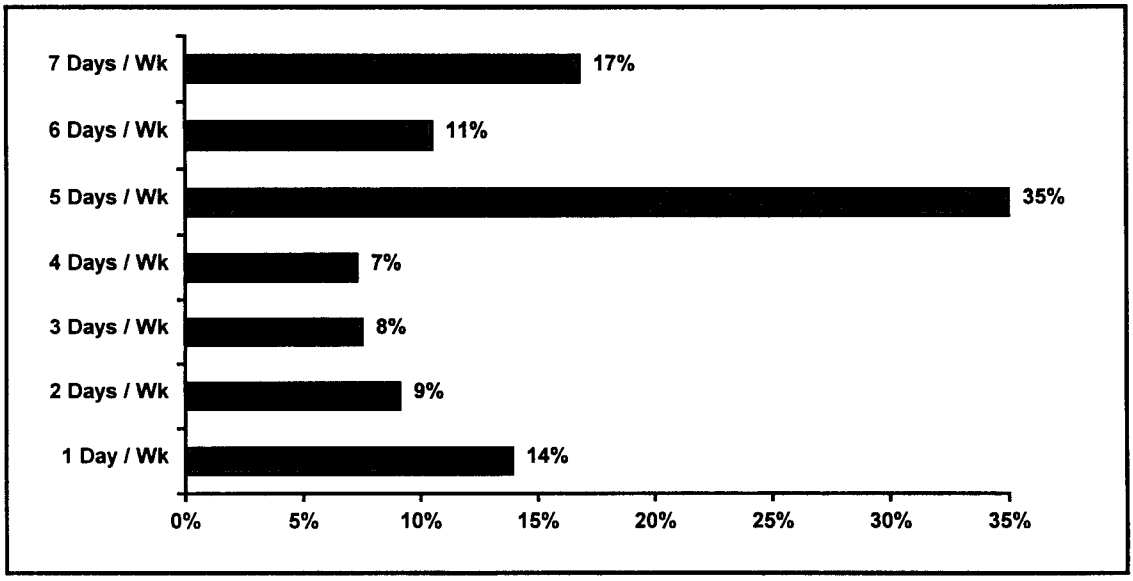
Frequency of Riding CTA Buses / Trains

Respondents were asked how many days out of the previous seven days they rode a CTA bus and how many days they rode a CTA train. Frequent riders are defined by CTA as those riders who rode a CTA bus or train five or more days in the past week.

Segment Size

- More than three out of five (63%) CTA riders are frequent riders – that is, they rode the CTA five or more days in the previous week.
    - The majority (56%) of frequent riders rode the CTA five days in the week before the survey. However, 17 percent rode the CTA every day. On average, frequent riders rode the CTA 5.7 days in the week before the survey.
- Infrequent riders (those who rode CTA one to four days in the previous week) also represent an important market segment – 37 percent of all riders.
    - Three out of five (61%) infrequent riders rode the CTA one or two days in the previous week. On average, infrequent riders ride the CTA 2.2 days a week.

FIGURE 2
FREQUENCY OF RIDING CTA BUSES / TRAINS IN THE PAST WEEK



Segment Characteristics

- In general, frequent and infrequent riders are similar demographically. However, there are some differences between these two segments.
  - Frequent riders are somewhat more likely than infrequent riders to ride both the bus and train. Moreover, frequent riders are more likely than infrequent riders to live on the north side. Frequent riders are more likely than infrequent riders to be employed full-time outside the home and to be of African-American or Hispanic backgrounds.
  - Infrequent riders are somewhat more likely than frequent riders to use either the bus or the train only. They are older than frequent riders and are more likely to be Caucasian.

TABLE 3
CHARACTERISTICS OF FREQUENT AND INFREQUENT CTA RIDERS

	Infrequent Rider [n = 302]	Frequent Rider [n = 502]
Primary Mode		
Bus Only Riders	**40.4%**	37.1%
Train Only Riders	23.6	18.6
Mixed Mode Riders	35.9	**44.4**
Area of Residence		
Downtown	2.9%	2.1%
North	23.4	**32.4**
Northwest	14.0	14.0
Suburbs	17.0	7.0
West	5.1	7.5
Southwest	11.4	9.2
South	26.3	27.9
Age		
16-17	7.5%	10.3%
18-24	12.2	15.7
25-34	28.4	27.0
35-44	16.4	19.1
45-54	12.4	14.4
55-64	6.9	7.2
65 and over	**16.3**	6.2
Employment Status		
Employed Full-Time	47.6%	**63.2%**
Employed Part-Time	8.1	**11.5**
Not Employed Outside The Home	6.0	1.0
Student	16.4	14.8
Retired	**15.0**	4.3
Unemployed / Other	6.8	5.2
Ethnic Background		
White / Caucasian	**59.6%**	41.4%
African-American	27.9	**38.1**
Hispanic	4.3	**10.3**
Asian	4.1	4.1
American Indian	0.3	1.7
Mixed Heritage	1.3	1.8
Other	2.4	2.6

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

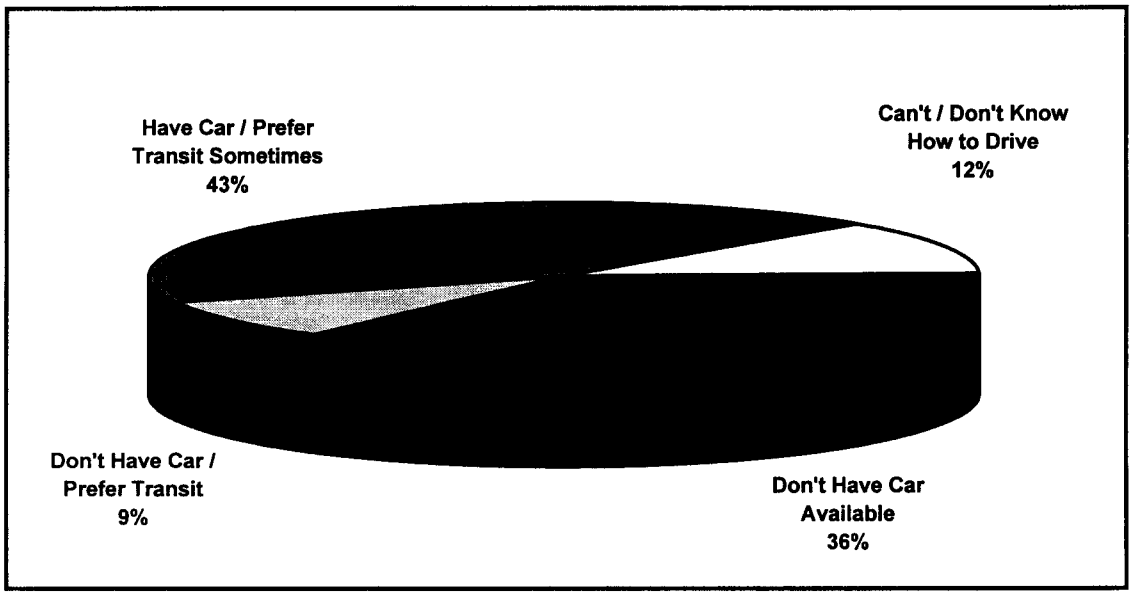
Dependence on Public Transportation

Respondents were asked whether they ride the CTA because they can't or don't know how to drive, do not have a car available, have chosen to not have a car and take the bus or train, or have a car available yet take the bus or train for some purposes. Responses to this question were used to determine the extent to which respondents are dependent on public transportation.

Segment Size

- CTA ridership is nearly equally divided between "choice" and "dependent" riders.
  - The majority (52%) of CTA riders should be considered "choice" riders, either because they have a car available for their use but prefer the bus or train for some purposes or they have chosen not to have a car because they prefer using transit.
  - Somewhat fewer (48%) CTA riders are dependent on public transportation either because they can't or don't know how to drive or because they do not have a car available.

FIGURE 3
DEPENDENCE ON PUBLIC TRANSPORTATION



Segment Characteristics

- Choice and dependent riders differ on many demographic characteristics. **Choice riders** are more likely than dependent riders to be train riders only, residents of the Chicago suburbs, men, between the ages of 25 and 44, more affluent (household incomes over $40,000), employed full-time, and of Caucasian backgrounds.
- **Dependent riders** are more likely than choice riders to be bus riders only, south side residents, women, between the ages of 16 and 24, less affluent (household incomes less than $20,000), students, and of African-American heritage.
- Like choice riders, **voluntarily dependent riders** are more likely than dependent riders to be train riders. However, they are more likely than choice riders to be bus riders only. Voluntarily dependent riders are more likely than choice or dependent riders to be north side residents. Like dependent riders, voluntarily dependent riders are more likely than choice riders to be women and less affluent. However, voluntarily dependent riders are more similar to choice riders in that they are more likely to be between the ages of 25 and 44, employed full-time, and of Caucasian background.

TABLE 4 – CHARACTERISTICS OF TRANSIT-DEPENDENT, VOLUNTARILY DEPENDENT, AND CHOICE RIDERS

	Dependent Rider [n = 385]	Voluntarily Dependent [n = 72]	Choice Rider [n = 347]
Primary Mode			
Bus Only Riders	**48.9%**	**40.3%**	26.2%
Train Only Riders	7.8	**24.0**	**33.9**
Mixed Mode Riders	43.3	35.6	39.9
Area of Residence			
Downtown	2.4%	6.4%	1.6%
North	27.1	**38.2**	29.4
Northwest	13.9	9.5	14.9
Suburbs	7.6	5.8	**15.0**
West	6.8	3.9	6.9
Southwest	9.7	7.2	11.0
South	**32.5**	29.0	21.2
Gender			
Male	29.5%	39.2%	**48.8%**
Female	**70.5**	60.8	51.2
Age			
16-17	**15.6%**	6.3%	2.7%
18-24	**16.6**	10.6	12.8
25-34	22.7	**33.5**	**31.5**
35-44	14.5	**19.4**	**21.6**
45-54	12.3	14.6	15.1
55-64	7.6	3.3	7.4
65 and over	10.6	12.3	8.9
Income			
Less than $10,000	**18.0%**	**15.7%**	5.8%
$10,000 - $20,000	**27.2**	**24.9**	8.4
$20,000 - $30,000	19.0	7.1	18.3
$30,000 - $40,000	16.3	23.2	20.8
$40,000 - $50,000	9.2	6.9	**14.2**
$50,000 - $60,000	5.2	7.8	**7.8**
More than $60,000	5.1	14.4	**24.7**
Employment Status			
Employed Full-Time	44.9%	**62.9%**	**69.7%**
Employed Part-Time	11.6	12.3	8.2
Not Employed Outside The Home	3.3	1.9	2.6
Student	**22.6**	5.7	9.7
Retired	9.5	10.7	6.6
Unemployed	8.1	6.5	3.2
Ethnic Background			
White / Caucasian	36.4%	**57.9%**	**59.1%**
African-American	**44.5**	29.6	23.9
Hispanic	9.4	2.3	7.7
Asian	4.2	2.8	4.4
American Indian	1.1	1.6	1.3
Mixed Heritage	1.7	3.2	1.3
Other	2.8	2.6	2.3

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

Length of Time Riding CTA

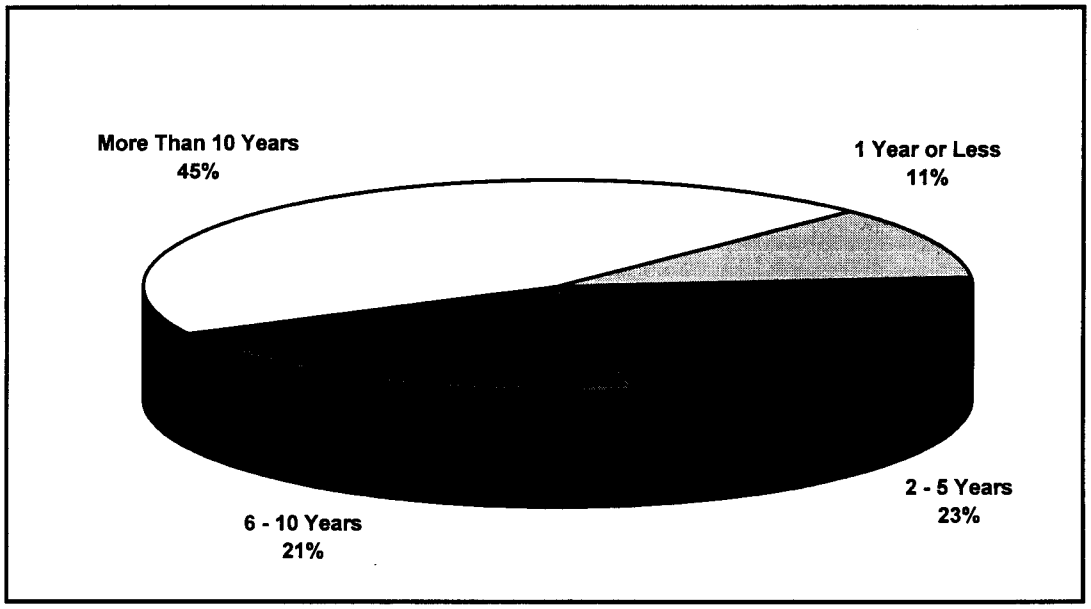
Respondents were asked how long (in years) they have been riding the CTA.

Segment Size

- The CTA has a base of riders who have ridden the CTA for many years. Nearly half (45%) have been riding the system more than ten years, two out of three riders (66%) have been riding more than five years.

- The agency is less effective in attracting new riders to the system. Only one of ten (11.2%) riders have been riding the system one year or less.

FIGURE 4
LENGTH OF TIME RIDING CTA



Segment Characteristics

- Those riders new to the system – riding one year or less – are more likely than other riders to be train only riders, to live in the suburbs, to be younger (between the ages of 18 and 24), and to be less affluent (household incomes less than $10,000).

- Those riders who have been riding the system the longest – ten years or longer – are more likely than new riders to ride both the bus and train, to be residents of the south side, and to be older (35 and over). Nearly one out of five (18.6%) long time riders are senior citizens and retired. However, more than three out of five (61.3%) are employed full-time – more than any other segment.

TABLE 5
CHARACTERISTICS OF RIDERS BASED ON LENGTH OF TIME RIDING

	1 Yr. Or Less [n = 89]	2 - 5 Years [n = 189]	6 - 10 Year [n = 167]	More than 10 Years [n = 363]
Primary Mode				
Bus Only Riders	29.8%	42.4%	37.3%	38.7%
Train Only Riders	**36.9**	19.7	20.9	16.7
Mixed Mode Riders	33.3	37.9	**41.8**	**44.6**
Area of Residence				
Downtown	4.7%	4.1%	2.7%	0.8%
North	32.6	37.2	25.0	25.7
Northwest	14.3	11.6	12.6	15.8
Suburbs	**15.0**	8.5	8.7	11.8
West	4.0	9.0	6.7	5.9
Southwest	5.9	5.7	11.9	12.4
South	23.5	23.9	**32.3**	**27.7**
Age				
16-17	12.2%	**24.1%**	9.2%	0.9%
18-24	**33.0**	16.8	24.0	4.1
25-34	37.4	36.0	39.4	15.4
35-44	8.6%	10.7%	16.1%	**25.1%**
45-54	2.4	6.1	6.6	**23.6**
55-64	3.2	3.7	1.6	**12.3**
65 and over	3.2	2.5	3.1	**18.6**
Income				
Less than $10,000	**17.4%**	9.4%	14.8%	11.8%
$10,000 - $20,000	22.0	15.3	23.3	17.4
$20,000 - $30,000	23.2	22.0	9.8	17.4
$30,000 - $40,000	17.6	23.5	18.0	17.3
$40,000 - $50,000	8.2	9.5	13.1	11.8
$50,000 - $60,000	2.8	6.2	3.4	9.3
More than $60,000	8.7	14.2	17.5	15.0
Employment Status				
Employed Full-Time	57.5%	51.7%	54.9%	**61.3%**
Employed Part-Time	9.3	12.2	6.3	11.3
Not Employed Outside The Home	0.0	1.1	3.2	4.2
Student	26.0	26.9	23.6	3.2
Retired	3.2	3.1	4.4	**14.0**
Unemployed	4.0	4.2	3.4	4.9
Other	0.0	.8	4.2	1.1
Ethnic Background				
White / Caucasian	47.0%	45.2%	42.3%	52.9%
African-American	29.2	32.0	36.3	35.7
Hispanic	10.6	10.5	11.0	4.7
Asian	8.3	5.2	6.1	1.6
American Indian	1.7	1.8	0.0	1.3
Mixed Heritage	2.3	1.9	0.4	1.9
Other	0.9	3.4	3.7	1.9

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

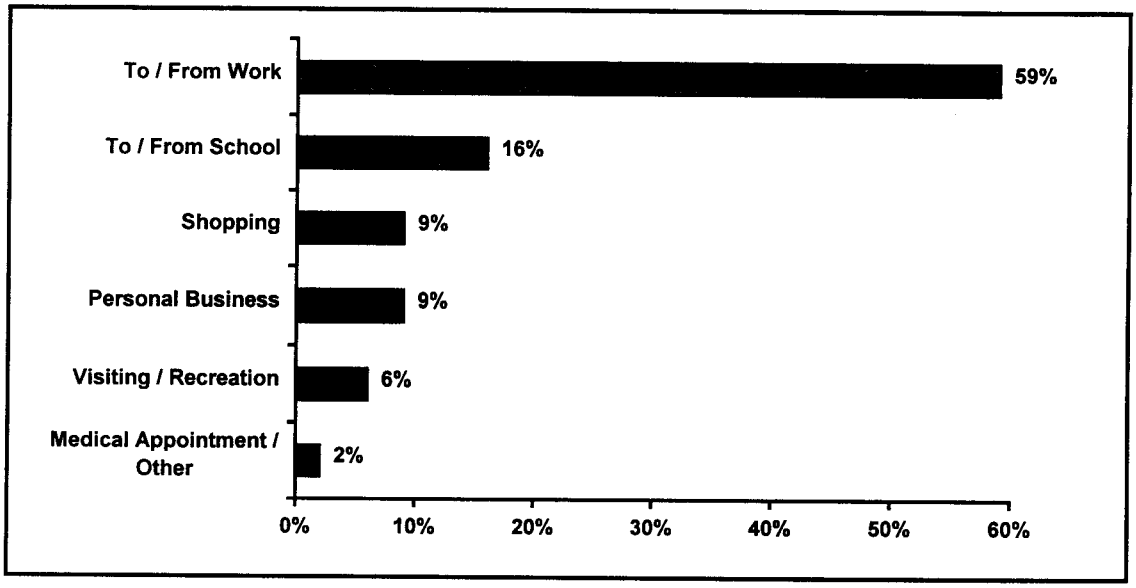
Trip Purpose

Respondents were asked to think about their typical trip on CTA – that is, the one they make the most often – and to indicate the usual purpose of that trip.

Segment Size

- Three out of four (75%) riders typically use the CTA to travel to and from work or school. While most are traveling to and from work, a significant proportion ride to school.

FIGURE 5
TYPICAL TRIP PURPOSE



Segment Characteristics

- Commuter and noncommuter riders are clearly differentiated by their demographic characteristics and some ridership characteristics.
  - Commuters are more likely than non-commuters to be men, younger (between sixteen and thirty-four), employed full-time or students, and of African-American or Hispanic background. An above-average proportion of commuters begin their trip on the north side.
  - On the other hand, non-commuters are more likely than commuters to be women, older (fifty-five and older), less affluent (household incomes below $10,000), not working outside the home, unemployed, or retired, and Caucasian. Surprisingly, an above-average proportion of non-commuters begin their trip in the suburbs.

TABLE 6
DEMOGRAPHIC CHARACTERISTICS OF RIDERS BASED ON USUAL TRIP PURPOSE

	Commuters [n = 600]	Non-commuters [n = 207]
Gender		
Male	**40.4%**	33.5%
Female	59.6	**66.5**
Age		
16-17	**10.8%**	4.6%
18-24	**15.7**	10.3
25-34	**30.7**	18.3
35-44	17.7	19.1
45-54	14.0	12.9
55-64	6.6	**8.7**
65 and over	4.5	**26.1**
Income		
Less than $10,000	8.9%	**23.7%**
$10,000 - $20,000	20.1	14.4
$20,000 - $30,000	17.3	18.2
$30,000 - $40,000	19.8	16.0
$40,000 - $50,000	12.4	7.2
$50,000 - $60,000	6.5	6.7
More than $60,000	14.9	13.7
Employment Status		
Employed Full-Time	**66.5%**	30.8%
Employed Part-Time	10.5	9.4
Not Employed Outside The Home	1.1	**8.0**
Student	**17.0**	10.9
Retired	2.1	**26.3**
Unemployed	1.7	**11.9**
Other	1.1	2.7
Ethnic Background		
White / Caucasian	45.7%	**55.6%**
African-American	**35.1**	31.9
Hispanic	**9.5**	3.7
Asian	4.4	3.4
American Indian	1.2	1.2
Mixed Heritage	1.8	1.1
Other	2.4	3.0
Area of Residence		
Downtown	2.5%	2.0%
North	**32.0**	20.3
Northwest	13.7	14.7
Suburbs	8.1	**18.5**
West	6.2	7.5
Southwest	9.8	10.6
South	27.6	26.4

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

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- Commuters are three times as likely as non-commuters to be frequent riders – average 4.9 days per week.

- Commuters are more likely than non-commuters to have been riding the CTA ten years or less. This could simply reflect their age distributions or it may suggest that the CTA has been more effective in attracting commuters to the system in recent years.

- Commuters are more likely than non-commuters to ride during peak hours. Also they are more likely to use tokens. Non-commuters typically use cash to pay their fares.

TABLE 7
RIDERSHIP CHARACTERISTICS OF RIDERS BASED USUAL TRIP PURPOSE

	Commuters [n = 600]	Non-commuters [n = 207]
Frequency of Riding		
Frequent (5+ Days/Wk)	**75.3%**	24.4%
Infrequent	24.7	**75.6**
Avg. Days / Week	4.9 days	3.0 days
Length of Time Riding		
1 Year or Less	**12.1%**	7.7%
2 - 5 Years	**25.8**	16.5
6 - 10 Years	**21.6**	17.8
More Than 10 Years	40.5	**58.0**
Fare Payment		
Cash	30.6%	**58.5%**
Tokens	**59.1**	34.6
Monthly Pass	3.3	1.5
Token / Pass Combo	3.1	1.0
Other	3.7	4.4
Hours Ride		
Peak	**73.3%**	29.1%
Off-Peak	14.6	**51.0**
Combination Peak / Off-Peak	12.1	19.9

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

Motivations for Using Public Transportation

Respondents who choose to use public transportation (that is, they have a car available and prefer transit for some purposes or have given up their car because they prefer transit) were asked how important ten factors are in deciding to ride the bus or train. Respondents indicated whether each was a "major factor," a "minor factor," or "not a factor at all" in their decision to use the bus or train.

- Consistent with the focus group results, **availability of service that is direct to their destination** is a primary reason why riders choose to ride the bus or train. Two out of three (66%) riders say that availability of service that is direct to their destination is a major factor in their decision to use the bus or train. An additional 22 percent say this is a minor factor. Only one out of eight (12%) of all riders say the availability of service to their destination is not a factor at all, making it clear that for those riders who have chosen to use public transportation, convenience – as defined by access to service – is the single most important factor in their ongoing decision to use public transportation.

  - The availability of service to their destination is somewhat more important to voluntarily dependent riders than to choice riders (75% compared with 64%, respectively).

  - The availability of service that is direct to their destination is more likely to be a major factor for those riders who generally use only one mode (bus or train) than for those who use both modes. This would suggest that those who use mixed modes do so primarily because of lack of direct service.

  - Also, the availability of direct service is more likely to be a major factor for those using transit for travel to work than for those using the bus or train for nonwork purposes (69% compared with 56%, respectively).

- An equally important factor in riders' decision to use public transportation is the **cost of parking**. Two out of three (66%) riders say that the primary reason they ride is because parking is too expensive. Choice riders are more likely than voluntarily dependent riders to say that the cost of parking is a major factor in their decision to use transit (71% compared with 42%, respectively). Also, cost of parking is more likely to be a major factor among train riders. Three out of four (74%) train only riders say that cost of parking is a major factor compared with 57 percent of bus only riders and 67 percent of riders who use both the bus and train.

  - Related to the cost of parking, availability of parking at their destination is a major factor for more than half (54%) of all riders. Again, availability of parking at their destination is more important to choice riders than to voluntarily dependent riders (59% compared with 34%, respectively). Also, availability of parking at their destination is more likely to influence those using transit for noncommute travel than for commute purposes (65% compared with 51%, respectively).

- While not major factors, avoiding traffic congestion, cost of driving, reducing stress, environmental concerns, and travel time also have some influence on riders' decision to use the bus or train. These secondary benefits offer some opportunity for marketing communication programs targeted at specific markets.

  - Avoiding traffic congestion is more likely to be a factor for choice riders than for voluntarily dependent riders. Four out of five (81%) choice riders say that avoiding traffic is a major or minor factor in their decision to ride compared with 67 percent of voluntarily dependent

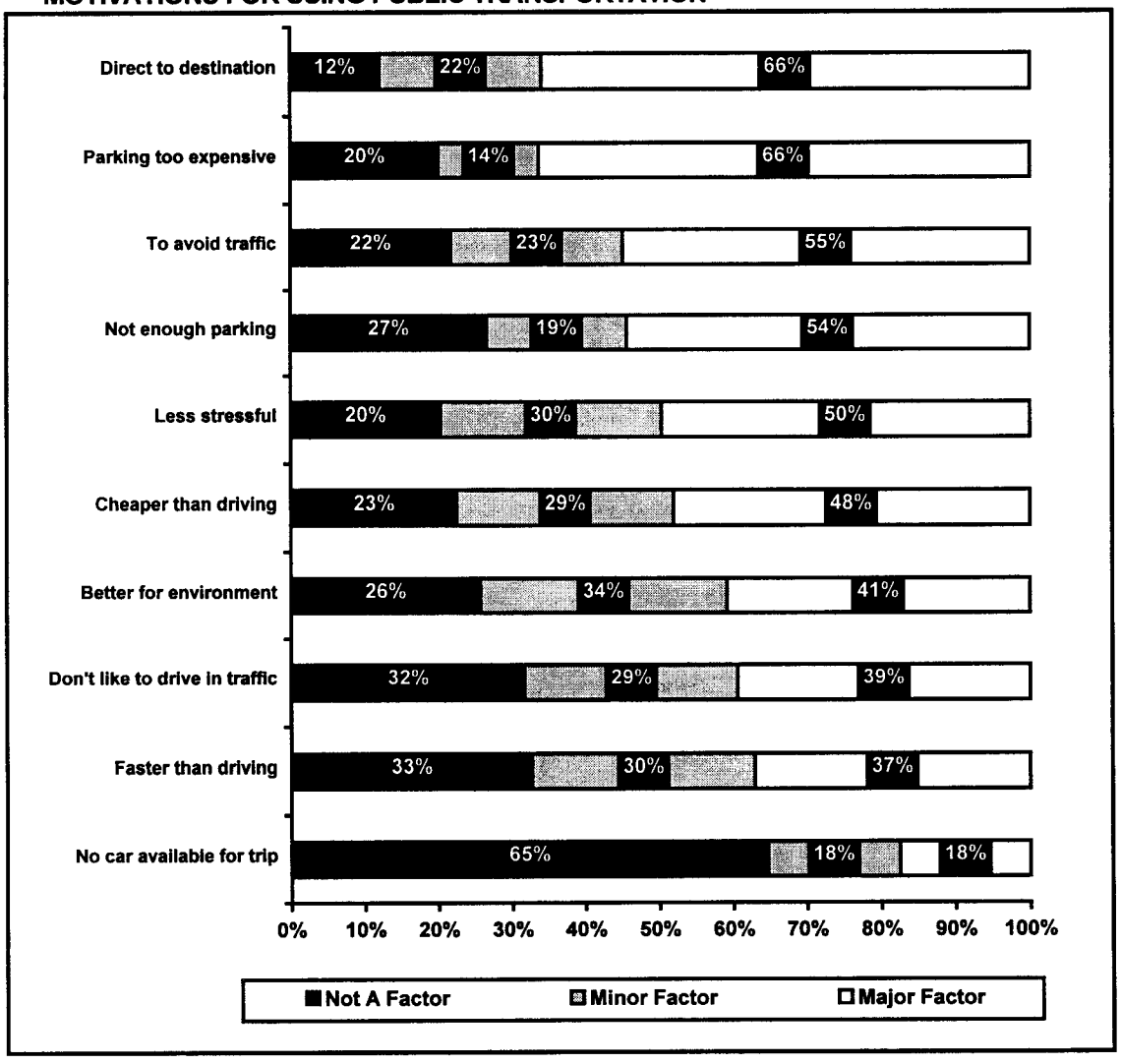
riders. Fifty-six percent (56%) of all choice riders say that avoiding traffic congestion is a major factor.

- The cost of driving is more likely to be a major factor for those using the bus or train primarily to travel to work or school. Over half (52%) of those who use the bus or train primarily to commute say the cost of driving is a major factor in their decision to use transit compared with only 37 percent of those who use transit for personal travel.

- Speed of travel is more likely to be a major factor in train only riders' decision to ride than for bus only or mixed mode riders (51% compared with 20% and 39%, respectively).

- Concern for the environment is most likely to be a concern among those riders who ride both the bus and train. Forty-five percent of mixed mode riders cite environmental concerns as a major factor compared with 40 percent of bus only riders and only 36 percent of train only riders.

FIGURE 6
MOTIVATIONS FOR USING PUBLIC TRANSPORTATION



Important Factors When Using Public Transportation Services

Respondents were asked how important forty-two bus or forty-four rail factors are in their decision to use the bus or train. Responses were recorded on a five-point scale where "1" meant "not at all important" and "5" meant "extremely important." Respondents focused on one mode only. Riders who use both the bus and train were randomly assigned to one mode. Moreover, because of the number of attributes being evaluated, the list was divided so that every respondent rated twenty of the most important aspects of service. The remaining attributes were divided so that each of the two groups of respondents evaluated approximately twelve other factors.

Important Factors When Riding the Bus

- **All** factors are at least somewhat important to riders, receiving an average rating of 3.4 or greater – above the midpoint on the five-point scale. This is as expected since results from the focus groups suggested that these factors are all attributes that customers expect for good transit service.

- The individual factors that are **most important** to bus riders include:
  - Driver operates the bus in a safe and competent manner,
  - Safety on the bus – both from crime and personal safety related to the behavior of others,
  - Safety at bus stops – again both from crime and personal safety related to the behavior of others,
  - Visibility of route names and numbers on the front of buses,
  - On-time performance,
  - Availability of a bus stop near the respondent's home, and
  - Drivers' knowledge about the system, routes and schedules.
- Individual factors that are **less important** to bus riders include:
  - Availability of seats at stops,
  - Cleanliness of bus exterior, and
  - Smoothness of ride.
  - Note: While cost of a monthly pass had a mean importance rating of 3.74, over half of all bus riders suggested that the cost of a monthly pass is extremely important to them. The importance of this attribute, therefore, should not be discounted simply because of the relatively low mean score.

TABLE 8
IMPORTANT FACTORS WHEN USING THE BUS

	% Not Important*	% Neutral	% Important	% Extremely Important	Mean
Safe / Competent Bus Operation	3.0	4.0	11.9	81.1	4.68
Safety From Crime While Riding Bus	4.1	5.7	12.0	78.2	4.62
Safety From Crime At Stops	7.0	6.8	10.8	75.4	4.51
Personal Safety On Bus Related to Behavior of Others	4.8	8.4	16.6	70.2	4.49
Personal Safety At Stops Related to Behavior of Others	4.8	7.6	18.9	68.6	4.48
Visibility of Route Names / Numbers	4.9	10.2	16.4	68.4	4.46
On Time Performance	4.4	11.2	17.0	67.4	4.45
Availability of Stop Near Home	6.8	6.2	18.2	68.8	4.44
Driver's Knowledge of Routes/Sched.	5.9	13.8	13.0	67.3	4.38
Ease of Making Connections	5.9	11.0	19.8	63.2	4.36
Time Between Buses	5.5	9.0	25.1	60.3	4.36
Knowing What Time Bus Arrives	6.7	11.1	18.4	63.8	4.35
Ease Of Making Transfers	5.4	11.4	22.7	61.4	4.35
Courtesy of Bus Driver	5.5	12.4	22.6	59.5	4.33
Ease of Getting Passes/Tokens	8.3	9.5	19.9	62.4	4.31
Wait Time When Transferring	5.6	12.7	22.7	59.0	4.31
Availability of Handrails / Grab Bars	8.6	12.1	18.6	60.7	4.27
Availability of Stop Near Work	9.4	6.7	23.3	60.6	4.27
Value of Service for Fare Paid	6.7	13.7	21.9	57.6	4.27
Cost of One-Way Ride	10.2	10.2	17.8	61.8	4.23
Comfortable Temperature on Bus	5.2	19.2	23.1	52.5	4.20
Ease Getting On / Off Bus	10.0	15.2	17.1	57.7	4.19
Cleanliness of Bus Interior	6.5	15.2	27.2	51.1	4.19
Availability of Information at Stops	10.5	11.9	20.0	57.6	4.18
Travel Time by Bus	7.3	14.6	28.1	50.0	4.16
Cost of a Transfer	12.1	11.7	18.5	57.7	4.13
Ease of Getting Inf. by Phone	10.5	16.2	17.9	55.4	4.13
Ease Of Paying Fare	9.0	19.2	27.2	44.6	4.02
Availability of Shelters at Stops	11.3	19.5	19.4	49.7	4.01
Clear / Timely Stop Announcements	12.6	20.0	20.1	47.4	3.97
Crowding on Bus	11.2	21.2	20.4	47.1	3.96
Availability of Seats on Bus	9.9	22.9	25.1	42.0	3.94
Buses / Shelters Are Clean of Graffiti	15.0	17.2	17.8	49.9	3.93
Availability of Printed Schedules	17.2	17.3	16.7	48.7	3.87
Cleanliness of Area at Stops	15.7	19.3	21.9	43.1	3.85
Professional Appearance of Driver	16.8	15.9	25.6	41.7	3.82
Comfort Of Seats	13.2	26.0	21.6	39.2	3.81
Driver Explains Reasons for Delays	19.6	13.9	21.9	44.7	3.79
Cost Of Monthly Pass	24.9	12.0	9.9	53.8	3.74
Smoothness of Ride	15.9	24.2	24.5	35.4	3.69
Cleanliness of Bus Exterior	21.4	21.6	21.3	35.6	3.57
Availability Of Seats At Stops	28.3	24.1	10.9	36.8	3.42

Mean based on a 5-point scale where "1" equals "not at all important" and "5" equals "extremely important."

** Category includes scale points 1 and 2.*

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- While in most cases transit-dependent and choice riders have similar needs and expectations for bus service, transit-dependent riders are more likely than those who are voluntarily dependent or choice riders to place greater importance on several factors, including:
  - Safety from crime where they get on and off the bus,
  - Knowing what time the bus arrives,
  - Wait time when making transfers,
  - Ease of getting on and off the bus,
  - Availability of handrails and grab bars on the bus,
  - Cost of a one-way ride, and
  - Cost of a transfer.
- Similarly, those riders who ride the bus only and those who ride both the bus and train have similar needs and expectations for bus service. However, those who ride the bus only are more likely than those who ride both the bus and train to place greater importance on several factors related to comfort. These factors include:
  - Cleanliness of the bus exterior,
  - Availability of seats on the bus,
  - Crowding on the bus, and
  - Smoothness of the bus ride.
  - Also, bus only riders are more likely than train only riders to suggest that safety from crime at stops and shelters is an important consideration when riding.
  - Mixed mode riders have higher expectations than bus only riders for on-time performance, due primarily to their potentially greater need to make connections.
- Finally, bus riders whose usual trip is for work are more likely than those who use the bus for nonwork purposes to suggest that factors related to scheduling, comfort of the ride, ease of use, and cost of service are extremely important factors when using the bus. These factors include:
  - Knowing what time the next bus arrives,
  - On-time performance,
  - Wait time when transferring,
  - Comfortable temperature on the bus,
  - Comfort of bus seats,
  - Ease of paying fare on the bus,
  - Ease of getting passes and tokens,
  - Cost of one-way ride,
  - Cost of a monthly pass, and
  - Cost of a transfer.

Important Factors When Riding the Train

- With the exception of the availability of parking at train stations, all attributes are at least somewhat important to riders – receiving a three or higher, the midpoint of the five-point scale.
- Individual factors that are **most important** to train riders are:
  - Operator operates train in a safe and competent manner,
  - Safety from crime while riding the train,
  - Availability of a station where respondent lives,
  - On-time performance,
  - Safety from crime while getting on or off trains – that is, at the stations,
  - Time between trains,
  - Personal safety while on the train related to the behavior of others,
  - Availability of a station where respondent works,
  - Names of train stations are clearly visible from inside train, and
  - Personal safety at the stations related to the behavior of others.
- Individual factors that are least important to train riders include:
  - Availability of parking at train stations,
  - Availability of seats and benches at stations,
  - Cleanliness of train exterior,
  - Professional appearance of conductor, and
  - Comfort of seats on the train.
  - Note: As with bus riders, while the cost of a monthly pass has a relatively low mean importance score (3.53), nearly half (47%) of all train riders say the cost of a monthly pass is extremely important.

TABLE 9
IMPORTANT FACTORS WHEN USING THE TRAIN

	% Not Important *	% Neutral	% Important	% Extremely Important	Mean
Safe / Competent Train Operation	2.7	2.6	14.3	80.5	4.72
Safety From Crime While Riding	2.8	6.2	9.1	82.0	4.68
Availability of Station Where Live	2.7	7.0	13.2	77.2	4.64
On-time Performance	2.7	5.4	20.6	71.3	4.59
Safety from Crime at Stations	7.2	6.7	9.2	76.9	4.51
Time Between Trains	2.9	6.9	27.4	62.8	4.48
Personal Safety on Train Related to Behavior of Others	6.3	6.4	17.6	69.7	4.47
Availability of Station Where Work	6.6	7.8	15.0	70.6	4.47
Station Names Visible From Inside	3.5	9.5	24.0	63.0	4.45
Personal Safety at Stations Related to Behavior of Others	6.5	9.1	16.6	67.8	4.42
Travel Time by Train	4.9	11.7	25.4	58.0	4.34
Ease of Making Connections	6.8	9.6	24.9	58.7	4.32
Value of Service for Fare Paid	2.9	17.0	26.9	53.2	4.29
Cleanliness of Train Interior	2.3	14.1	33.9	49.8	4.29
Conductors Know Routes/Schedules	9.7	10.6	18.3	61.2	4.28
Wait Time When Transferring	6.8	9.6	27.0	56.6	4.28
Ease of Getting Passes / Tokens	7.9	11.8	20.3	60.0	4.27
Courtesy / Helpfulness of Agents	6.2	14.9	24.2	54.7	4.25
Comfortable Temperature on Train	5.0	13.6	30.5	50.9	4.24
Visibility of Names/Colors on Outside	6.0	16.3	23.4	54.3	4.23
Conductor Explains Delays	7.8	12.4	23.3	56.5	4.23
Ease of Making Transfers	8.6	10.1	25.0	56.3	4.23
Knowing What Time Train Arrives	6.2	17.5	21.7	54.5	4.21
Ease of Getting On / Off Train	4.9	19.7	23.7	51.8	4.20
Cost of One-Way Ride	7.2	15.2	24.3	53.3	4.19
Clear/Timely Stop Announcements	9.4	13.9	23.2	53.5	4.15
Ease of Paying Fare	8.6	16.6	23.7	51.1	4.14
Availability of Information at Stations	11.1	12.4	23.5	53.1	4.13
Availability of Handrails / Grab Bars	11.8	15.6	18.6	53.9	4.09
Courtesy of Conductor	8.8	21.8	20.5	48.8	4.06
Cleanliness of stations	5.8	22.3	31.4	40.5	4.04
Availability of Printed Schedules	14.1	17.0	21.4	47.5	3.95
Ease of Getting Phone Information	15.3	16.9	20.9	46.9	3.92
Smoothness of Ride	9.4	23.7	33.4	33.5	3.90
Crowding on Train	12.3	20.3	26.6	40.8	3.90
Cost of Transfer	16.9	14.8	22.2	46.1	3.88
Availability of Seats on Train	15.0	20.7	19.6	44.7	3.87
Trains / Stations Clean of Graffiti	16.4	21.1	21.1	41.4	3.78
Comfort of Seats	14.0	29.2	33.7	23.1	3.60
Appearance of Conductor	21.1	27.1	17.9	33.8	3.53
Cost of Monthly Pass	28.2	14.2	9.6	47.0	3.53
Cleanliness of Train Exterior	23.5	21.5	24.1	30.8	3.49
Availability of Seats @ Stations	25.3	28.5	21.6	24.7	3.32
Availability of Parking @ Stations	42.9	14.4	5.2	27.5	2.67

Mean based on a 5-point scale where "1" equals "not at all important" and "5" equals "extremely important."

** Category includes scale points 1 and 2.*

- Riders who use both the bus and train have generally higher expectations for train service than do those who ride the train only. This is significant for factors related to scheduling / performance, availability of information, excellence in service from the conductor and other front-line personnel, comfort of the ride, and cost. These factors include:
  - Knowing what time the next train arrives,
  - On-time performance,
  - Ease of making connections to other trains and buses,
  - Wait time when transferring,
  - Availability of route and schedule information at train stations,
  - Availability of printed schedules for all trains,
  - Ease of getting information by phone,
  - Clear and timely stop announcements,
  - Courtesy and helpfulness of station agents,
  - Courtesy of the train conductor,
  - Professional appearance of the conductor,
  - Conductor's knowledge of routes, schedules, and system,
  - Cleanliness of the train interior,
  - Smoothness of the train ride,
  - Ease of getting on and off the train,
  - Comfort of the train seats,
  - Availability of hand rails and grab bars on the train,
  - Availability of parking at my station,
  - Ease of getting passes / tokens,
  - Cost of a one-way ride,
  - Cost of a monthly pass, and
  - Cost of a transfer.
- Train only riders have higher expectations than those who ride both the bus and train for the availability of a stop near where they live.

- Overall, choice and voluntarily dependent riders have similar expectations for rail service. However, choice riders have higher expectations for service than voluntarily dependent riders for several factors related to ease of use and communications while on the train whether through signage or with the conductor. These factors include:
  - Knowing what time the next train arrives,
  - Ease of getting on and off the train,
  - Ease of making connections with other trains and buses,
  - Availability of parking at my stations,
  - Ease of getting passes / tokens,
  - Visibility of route names and colors on the outside of the train,
  - Names of train stations are clearly visible from inside the train,
  - Conductor's knowledge of the system, routes, and schedules, and
  - Conductor explains reasons for delays or other problems.
  - Also, choice riders have higher expectations for being safe from crime while getting on and off the train at the stations than do voluntarily dependent riders.
- Finally, those who use transit primarily for commuting are more likely than those who use it for nonwork purposes to say that on-time performance, travel time by train compared with other modes, availability of a station near where they work, and ease of getting passes / tokens are "very important" to "extremely important" factors in deciding to use the train.
- On the other hand, those using transit primarily for nonwork purposes have higher expectations for the availability of route and schedule information at train stations, availability of printed schedules for all trains, availability of parking at the station, and ease of getting information by phone, perhaps reflecting less familiarity with riding than would be expected among commuters.

General Perceptions of CTA

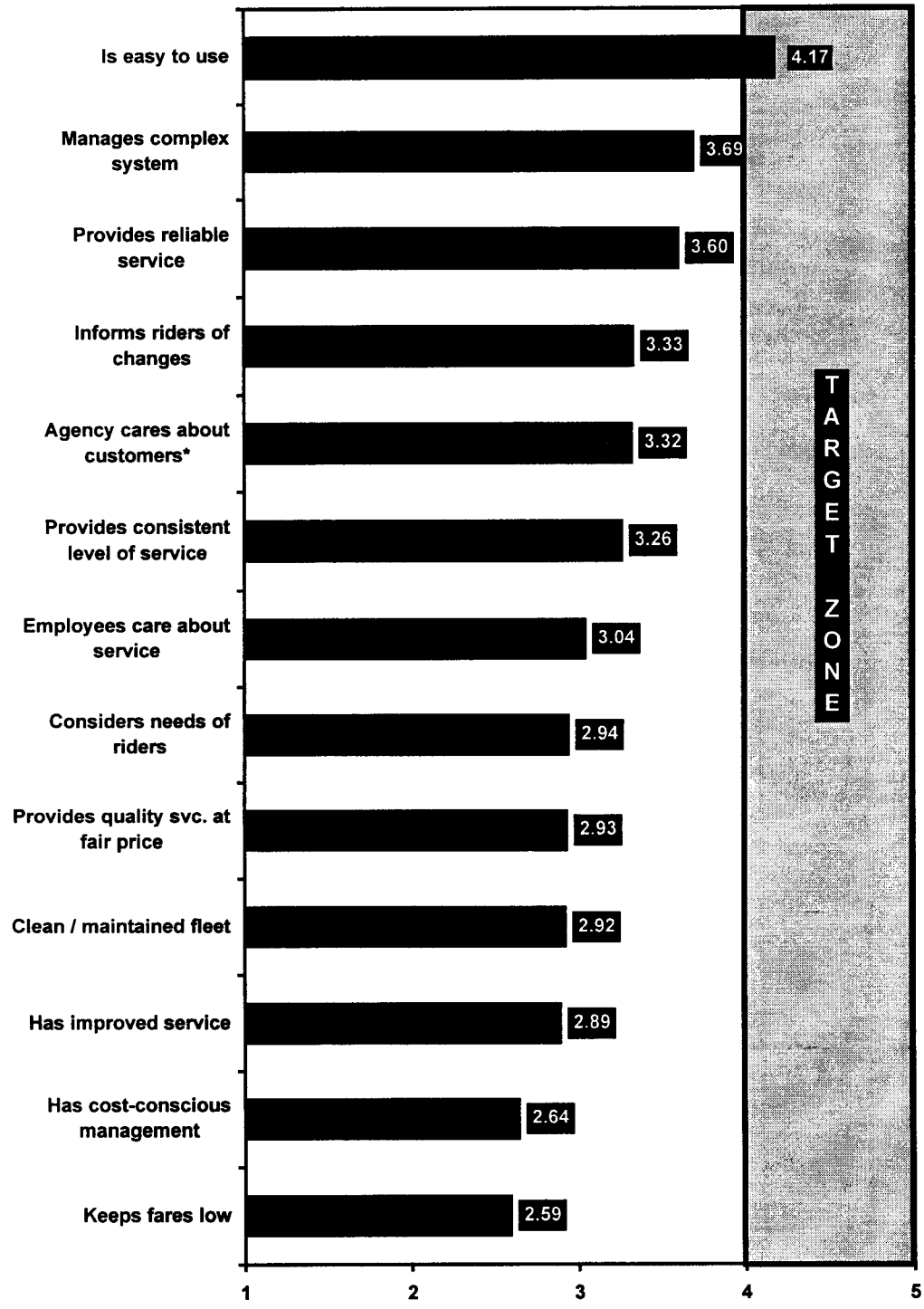
Respondents were read thirteen statements that people might use to describe the CTA and asked to indicate the degree to which they agree or disagree with each statement. A five-point scale was used where "1" meant "strongly disagree" and "5" meant "strongly agree."

Customer satisfaction literature suggests that only a truly satisfied customer can be considered a loyal customer and one that offers transit agencies the greatest promise of enhanced revenues and reduced operating costs. Based on this premise, a "target zone" is established for those scales that measure respondents' perceptions of service quality. Five-point scales were used throughout the study. Therefore, the target zone would be a mean score of four or greater. This is achieved only when the majority of respondents give the agency the highest score – that is, a five – and few respondents give the agency scores below a four.

- Riders somewhat agree the CTA is easy to use, effectively manages a complex system, and provides reliable service. However, with the exception of ease of use, even these descriptive statements receive a mean rating outside the target zone – that is, mean scores below four meaning that the majority of respondents did not agree strongly with these statements.
    - Train only riders are more likely than bus only riders and those who ride both the bus and train to agree that the CTA is easy to use. Moreover, train only and bus only riders are more likely than those who ride both the bus and train to agree that the CTA provides reliable service.

- However, they feel the CTA does not try to keep fares as low as possible and does not have a cost-conscious / efficient management.
    - Again, riders who use both the bus and train are more likely than those who use the bus or train only to give the CTA lower ratings for trying to keep the fares as low as possible and for having a cost-conscious management.

FIGURE 7
GENERAL PERCEPTIONS OF CTA



Mean based on five-point scale where "1" equals "strongly disagree" and "5" equals "strongly agree." Three (3) would be a neutral score indicating the respondent neither agrees nor disagrees with the statement. "Don't know" responses are recorded separately and are not included in the calculation of the mean.

**Statement reversed from questionnaire so that agreement with statement indicates a positive response.*

Service Quality and Customer Loyalty

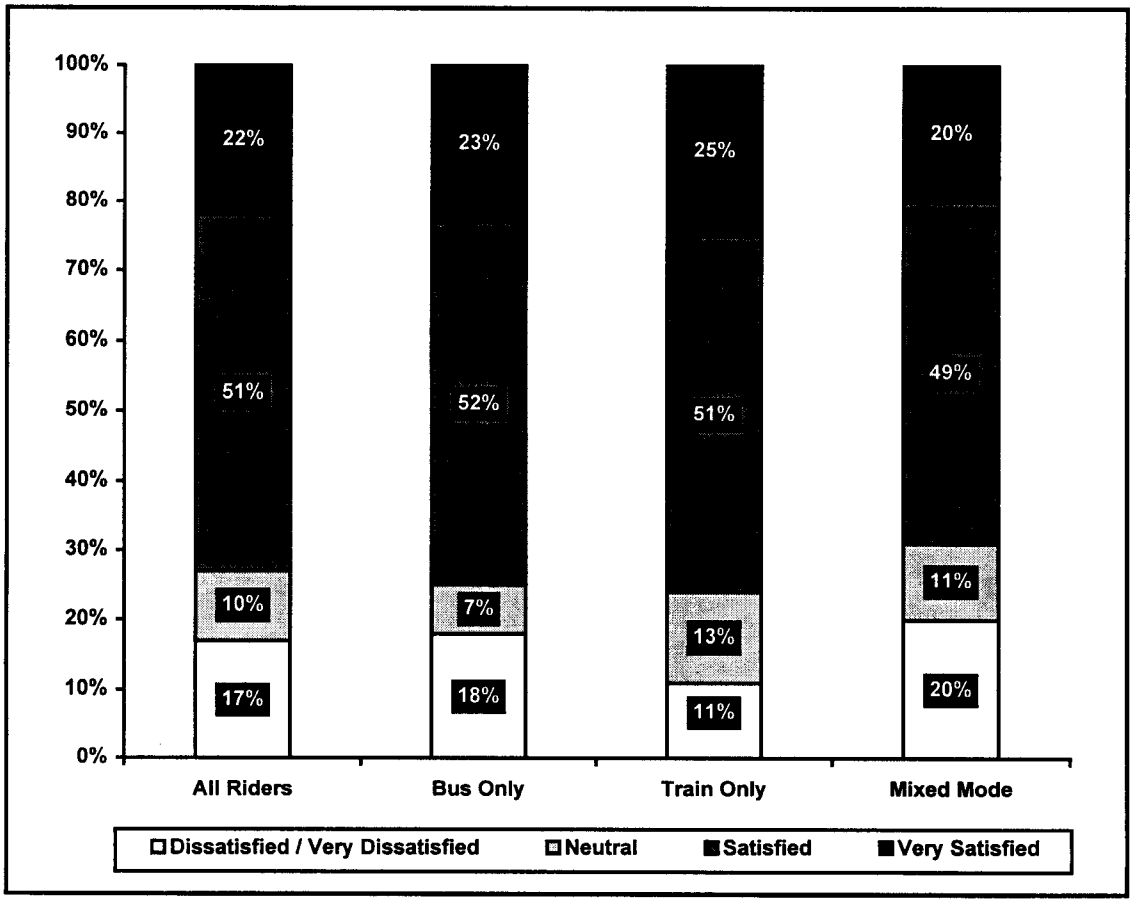
To understand riders' overall perceptions of service quality and its relationship to customer loyalty, respondents were asked three questions:

1) Overall, how satisfied are you with riding CTA buses / trains?
2) How likely are you to continue to use CTA buses / trains in the future?
3) How likely would you be to recommend CTA buses / trains to a family member, friend, or coworker?

Satisfaction

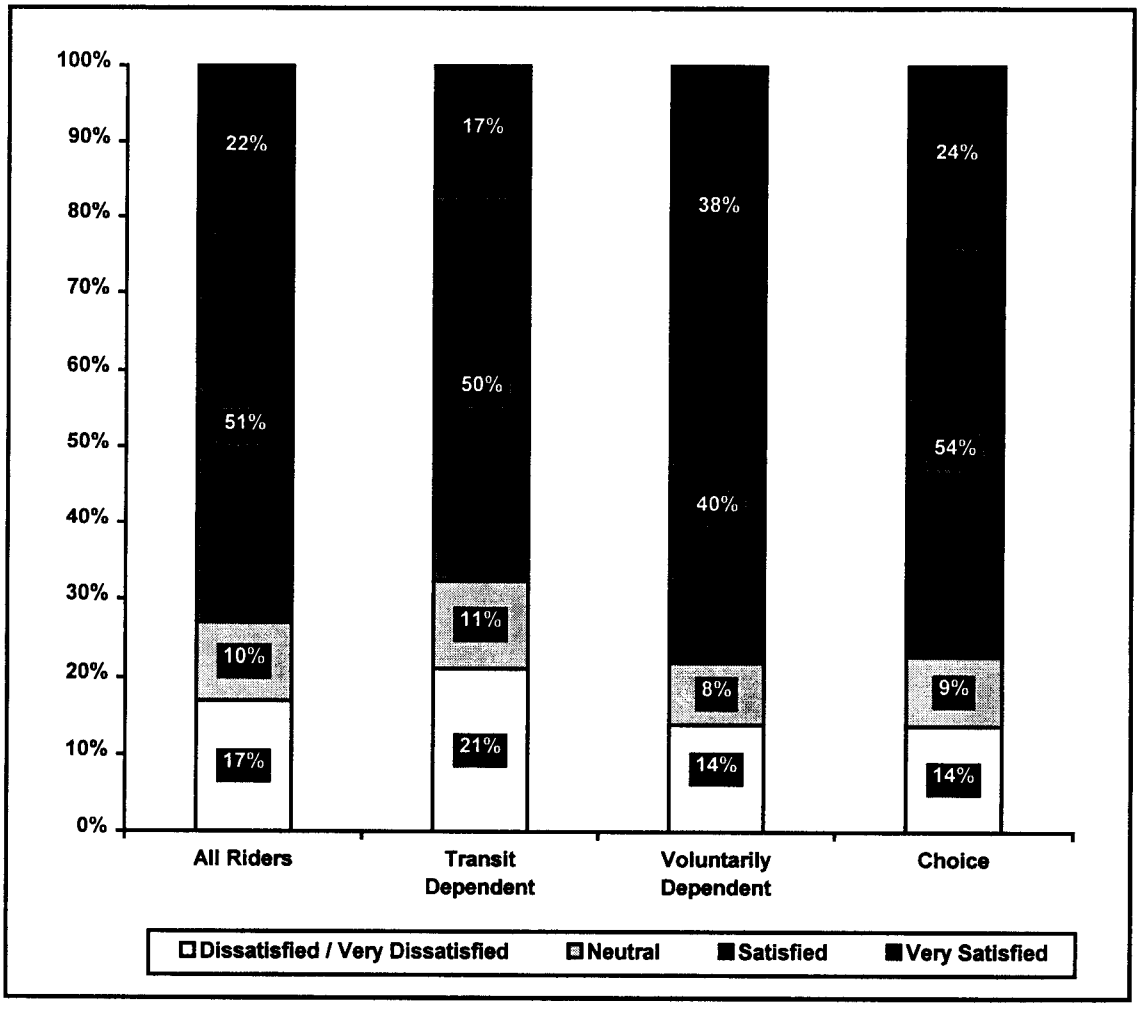
- The majority (73%) of all riders are satisfied with riding CTA buses and trains. However, more riders are only "somewhat satisfied" than are "very satisfied." Literature on customer satisfaction suggests that except in a few rare instances, complete customer satisfaction is the key to securing customer loyalty and generating superior long-term financial performance.
  - Bus only and train only riders are more likely to be satisfied than those who use both the bus and train, suggesting that aspects of service related to transferring across modes and making connections may have a negative effect on customer satisfaction.

FIGURE 8
SATISFACTION WITH RIDING CTA BUSES / TRAINS



- Satisfaction is significantly higher among those riders who have chosen to ride the CTA than among transit-dependent riders. Voluntarily dependent riders are more than twice as likely as transit-dependent riders to say they are "very satisfied" with CTA's service. Choice riders also are more likely to say they are "very satisfied," although somewhat less so.

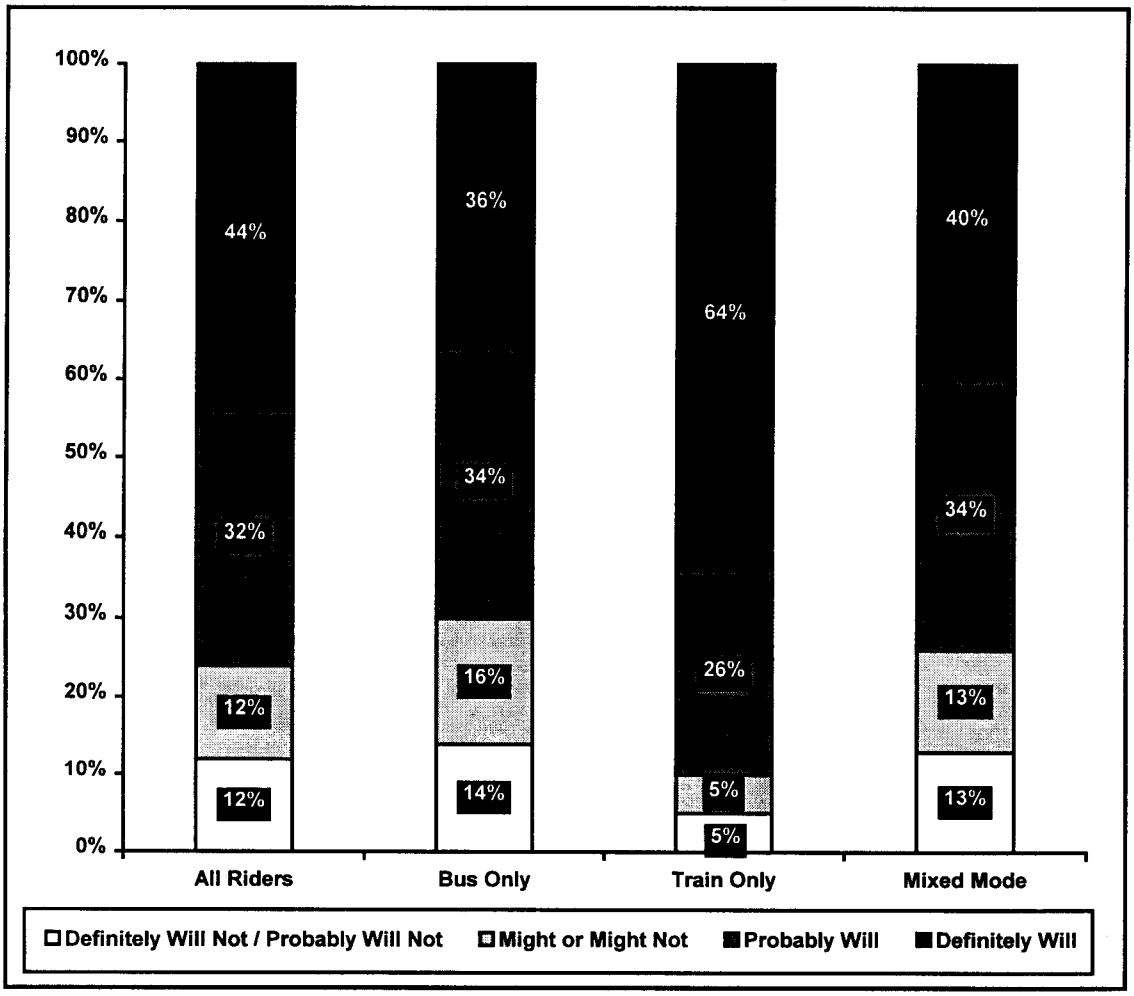
FIGURE 9
SATISFACTION WITH CTA BUSES / TRAINS
BY DEPENDENCE ON TRANSIT



Likelihood of Continued Use

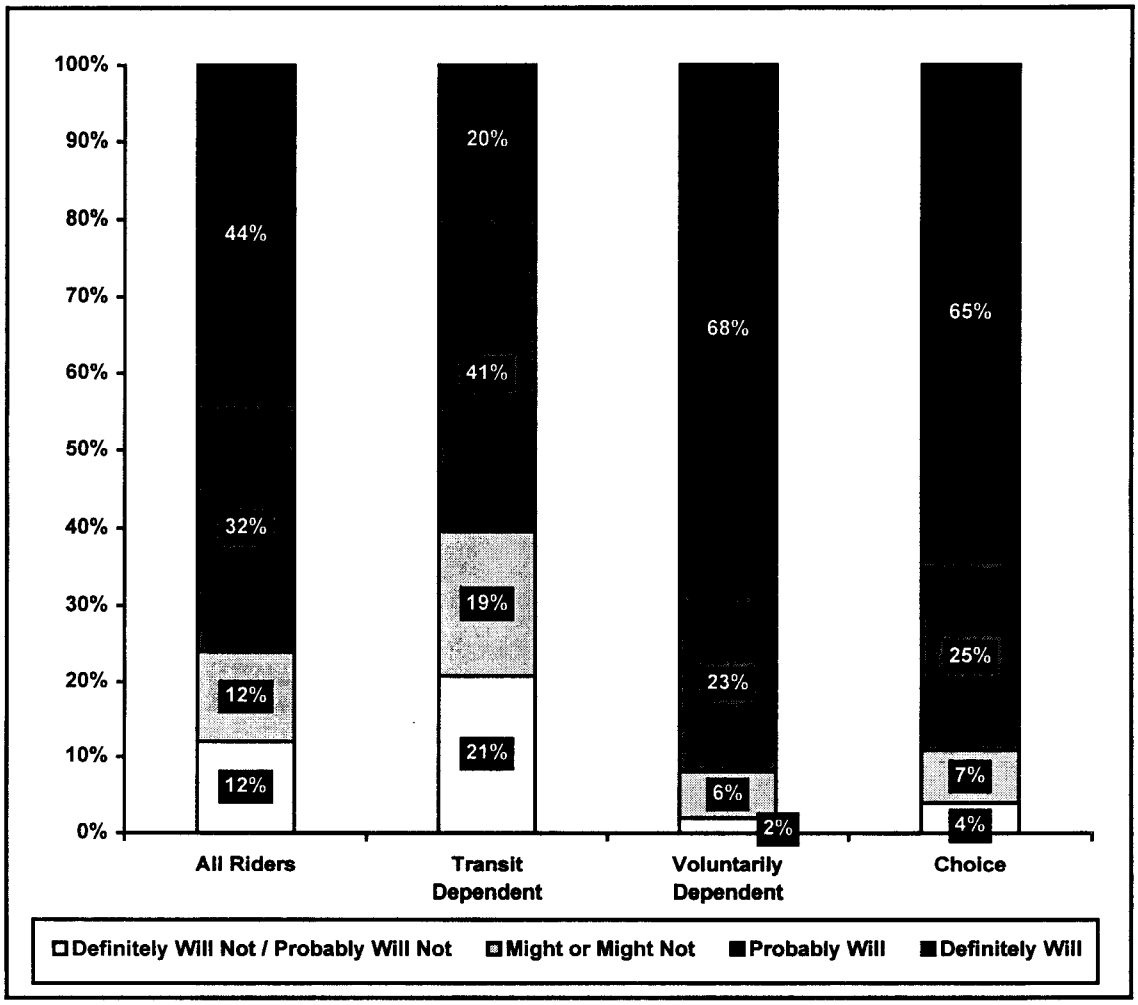
- More than three out of four (76%) riders are likely to continue using CTA buses and trains. Moreover, more "definitely will continue" riding than "maybe will continue" riding.
  - Likelihood of continued use is highest among train only riders – nearly two thirds (64%) of train only riders say they definitely will continue riding the CTA.
  - Likelihood of continued use is significantly lower among bus only riders and those who use both the bus and train.

FIGURE 10
LIKELIHOOD OF CONTINUING TO RIDE CTA BUSES / TRAINS



- As with satisfaction, likelihood of continued use is significantly lower among transit-dependent riders. This difference is pronounced with more than three times as many choice and voluntarily dependent riders saying they will definitely continue riding as transit-dependent riders. This would suggest that transit-dependent riders may represent a highly vulnerable target audience that is likely to defect should an alternate mode become available.

FIGURE 11
LIKELIHOOD OF CONTINUING TO RIDE CTA BUSES / TRAINS
BY DEPENDENCE ON TRANSIT

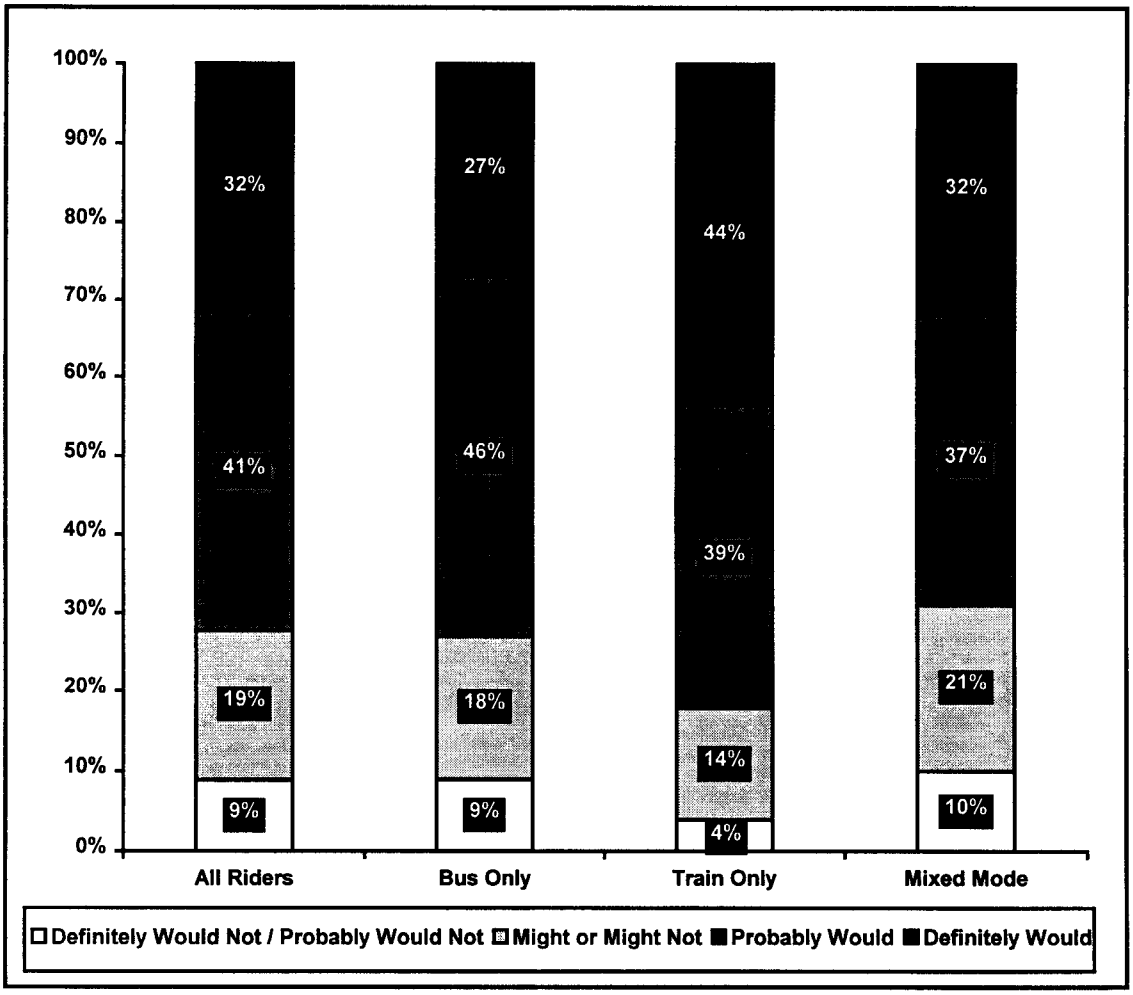


Likelihood of Recommending the CTA

Likelihood of continued use represents one means to measure customer loyalty as it provides some indication of future behavior. However, in the case of public transportation, where many riders may be likely to continue riding simply because they have no other option, an additional measure of customer loyalty is needed. The likelihood of recommending the use of a service provides an excellent secondary measure of loyalty.

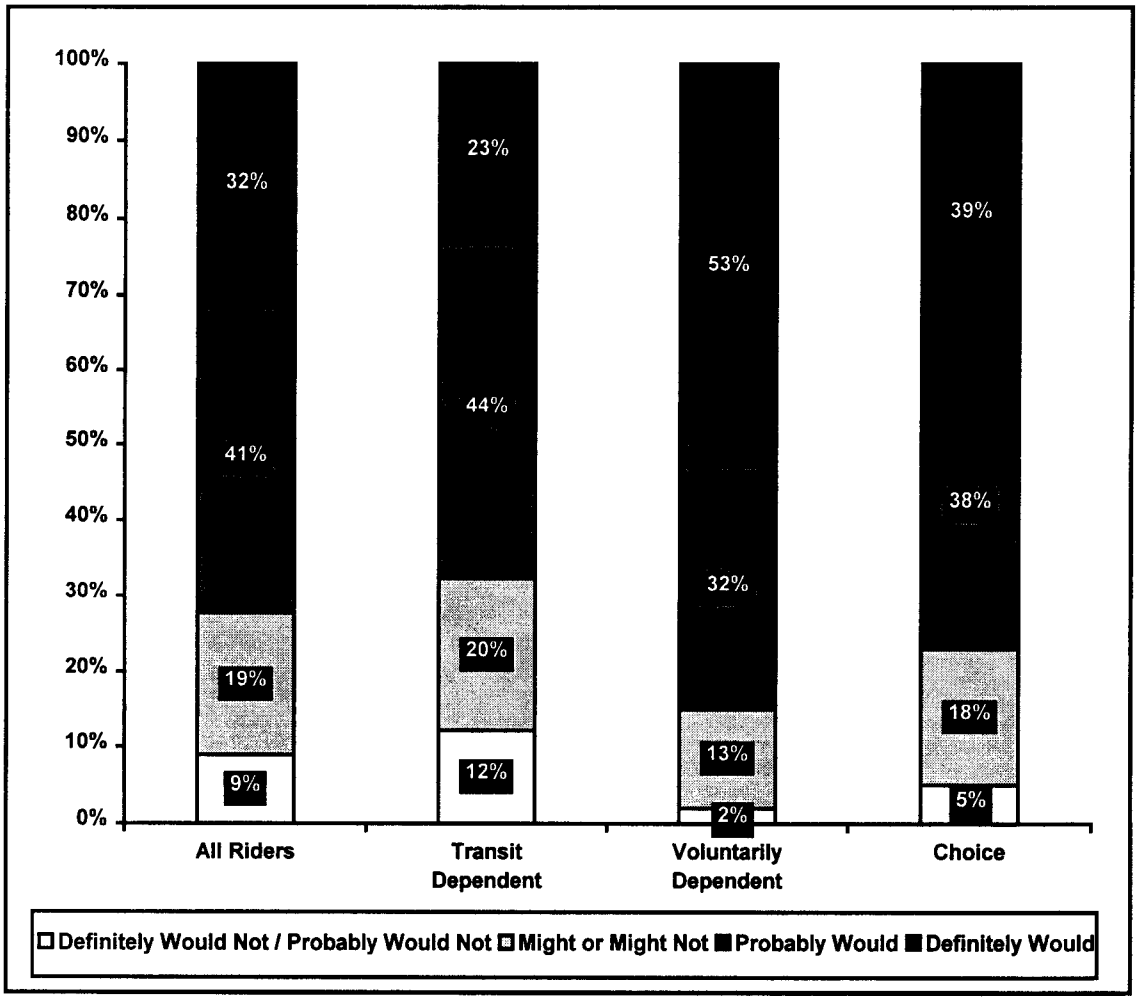
- Nearly three out of four (73%) would recommend riding CTA buses and trains to a friend, family member, or coworker. However, fewer "definitely would recommend" riding than "probably would recommend" riding.
  - Train only riders are most likely to suggest they "definitely would recommend" riding CTA. Significantly more bus only riders are likely to suggest they "probably would recommend riding" than "definitely would recommend" riding.
  - Riders who ride both the bus and train are more likely than train only and bus only riders to say they would not recommend the CTA or to have ambivalent attitudes toward recommending.

FIGURE 12
LIKELIHOOD OF RECOMMENDING THE CTA



- As with satisfaction and likelihood of continued use, loyalty (as suggested by likelihood of recommending the CTA) is significantly lower among transit-dependent riders.

FIGURE 13
LIKELIHOOD OF RECOMMENDING THE CTA
BY DEPENDENCE ON TRANSIT



Relationship Between Satisfaction and Loyalty

- There is a strong linear relationship between rider satisfaction and loyalty. Riders who are "very satisfied" are almost twice as likely as those who are only "somewhat satisfied" to suggest they "definitely would recommend" riding the CTA to a friend, family member, or coworker. While somewhat less pronounced, riders who are "very satisfied" also are more likely than those who are only "somewhat satisfied" to say they "definitely will continue" riding the CTA.

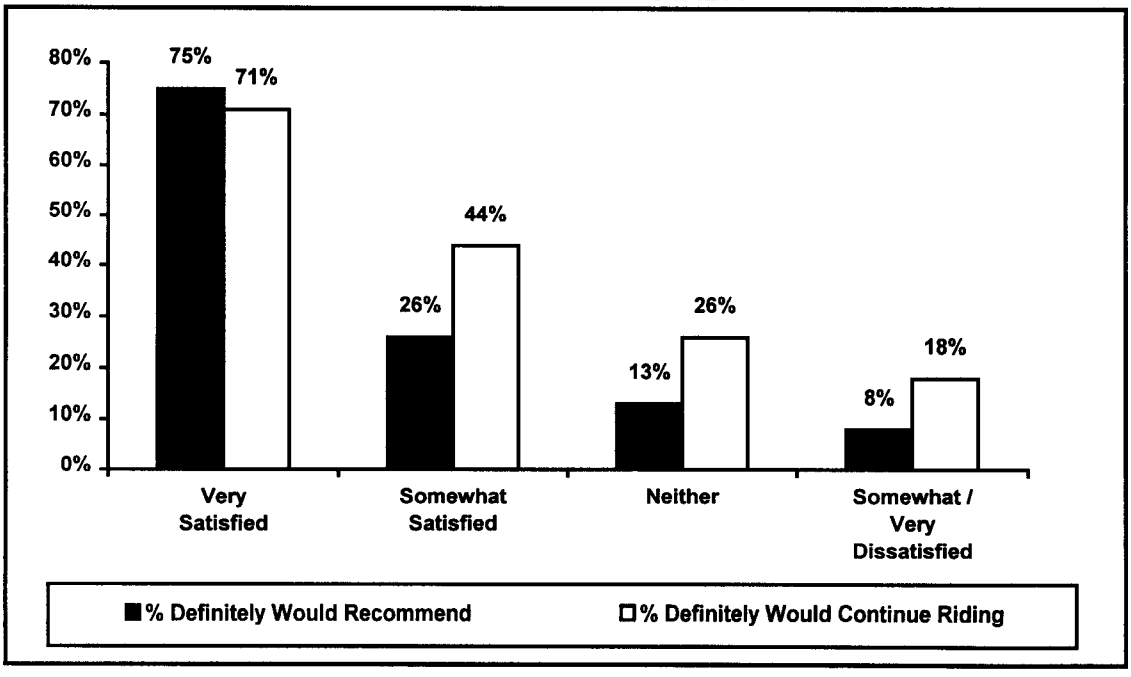
  - These relationships are highest among train only riders. Eight out of ten (81%) train only riders who are "very satisfied" with riding the CTA say they "definitely would recommend" riding. Similarly, 87 percent of train only riders who are "very satisfied" report they "definitely will continue" riding.

  - On the other hand, this relationship is lower among bus only riders where only seven out of ten (70%) bus only riders who are "very satisfied" with riding say they "definitely would recommend" the CTA and only 56 percent say they will "definitely continue" riding.

  - The relationship between customer satisfaction and likelihood of recommending the CTA is highest among voluntarily dependent riders. Eighty-two percent (82%) of voluntarily dependent riders who are "very satisfied" say they would recommend riding compared with 75 percent of choice riders and 73 percent of transit-dependent riders who are "very satisfied."

  - The relationship between customer satisfaction and likelihood of continuing to use the CTA is highest among choice riders and, to a lesser extent, among voluntarily dependent riders. Ninety-two percent (92%) of choice riders who are "very satisfied" say they "definitely will continue" riding compared with 79 percent of voluntarily dependent riders and only 43 percent of transit-dependent riders. This would suggest that something other than satisfaction may influence long-term loyalty among transit-dependent riders.

FIGURE 14
RELATIONSHIP BETWEEN SATISFACTION AND LOYALTY



Customer Loyalty Index

A primary purpose of this research was to develop an index of customer loyalty that could be measured over time. While complex measures of customer loyalty can be developed, recent research has shown that simple composite indices provide a useful measure for decision-making. Moreover, keeping the analysis simple allows for replication of the measure over time as well as its use in other studies.

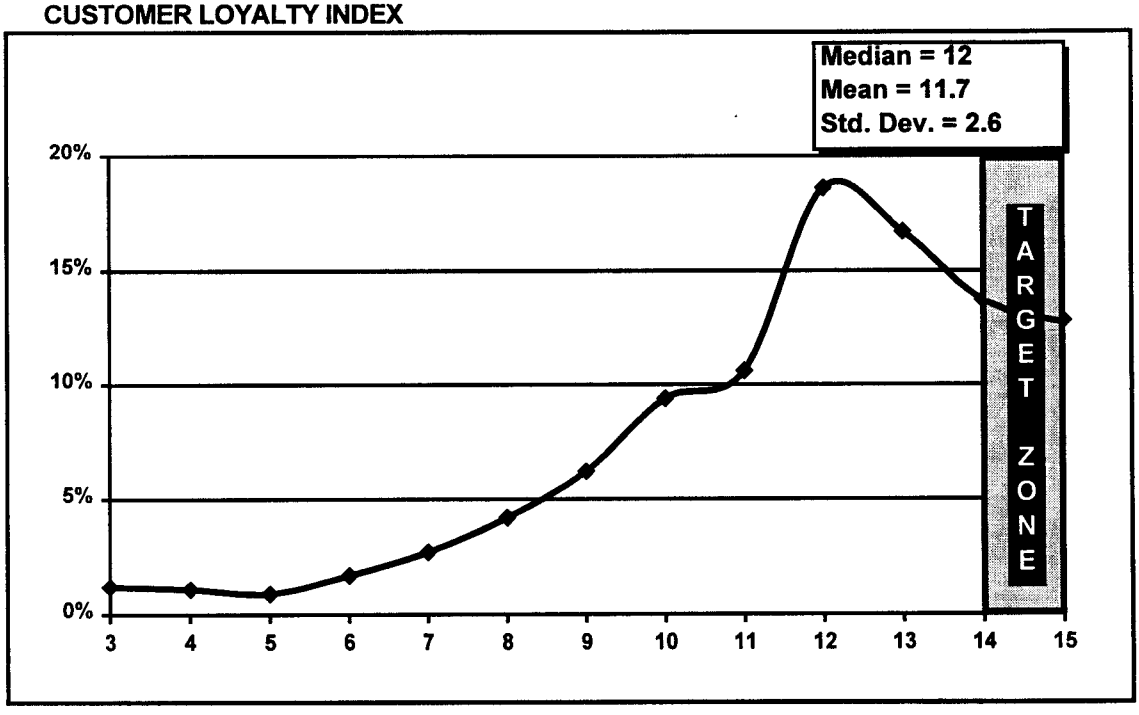
To create this index, respondents' answers to the three questions related to customer satisfaction and customer loyalty were added together. Again, these three questions are:

1) Overall, how satisfied are you with riding CTA buses / trains?
2) How likely are you to continue to use CTA buses / trains in the future?
3) How likely would you be to recommend CTA buses / trains to a family member, friend, or coworker?

The possible range of scores, therefore, is from "3" to "15" – a "perfect" score. The distribution of responses for this customer loyalty index is shown in the figure below. Here the target zone was set between fourteen and fifteen. This may seem to be an unrealistically high figure. However, a lower score than fourteen means that the respondent gave a four or less to at least two items or that the respondent gave a score of three or less to at least one item. Again, customer satisfaction literature suggests that only a truly satisfied customer can be considered a truly loyal customer and one that offers transit agencies the greatest promise of enhanced revenues and reduced operating costs.

- The distribution of this index is not normal and skews toward the high end. Despite this, however, the mean index score – 11.7 – is substantially below the target zone. Moreover, 29 percent of all riders have a loyalty index of ten or lower; 50 percent have a loyalty index of twelve or lower, and 73 percent have a loyalty index of thirteen or lower. Only 27 percent of all riders have a loyalty index within the target zone.

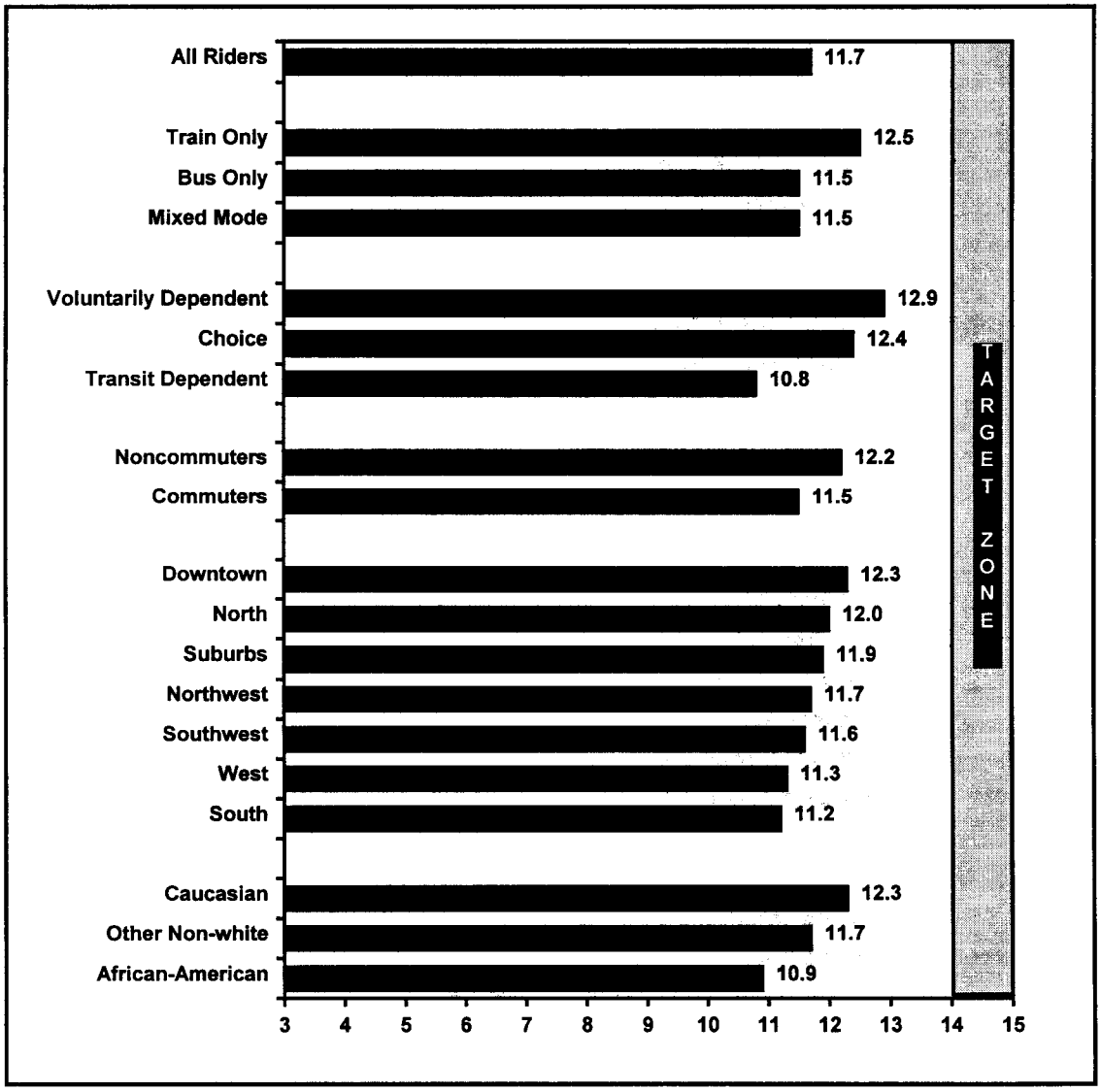
FIGURE 15
CUSTOMER LOYALTY INDEX



- While still below the target zone, customer loyalty is higher among:
  - Train only riders,
  - Voluntarily dependent and choice riders,
  - Non-commuters,
  - Riders whose usual trip originates downtown or on the north side, and
  - Caucasians.

- Customer loyalty is lowest among:
  - Bus only riders and those who ride both the bus and train,
  - Transit dependent riders,
  - Commuters,
  - Riders whose usual trip originates on the south or west sides, and
  - African-Americans.

FIGURE 16
CUSTOMER LOYALTY INDEX BY RIDER SEGMENT



Customer Loyalty Segments

To further understand who is loyal and who is not, responses to these three questions were combined as follows to identify four customer loyalty segments:

1) Respondents who say they are "very satisfied" with CTA, "definitely will continue riding," and "definitely would recommend" CTA to a friend, family member or coworker were grouped together and are considered "secure riders."

2) Respondents who gave the highest score to two out of the three questions are grouped together and are considered "potentially vulnerable riders."

3) Respondents who gave the highest score to only one out of the three questions are grouped together and are considered "vulnerable riders."

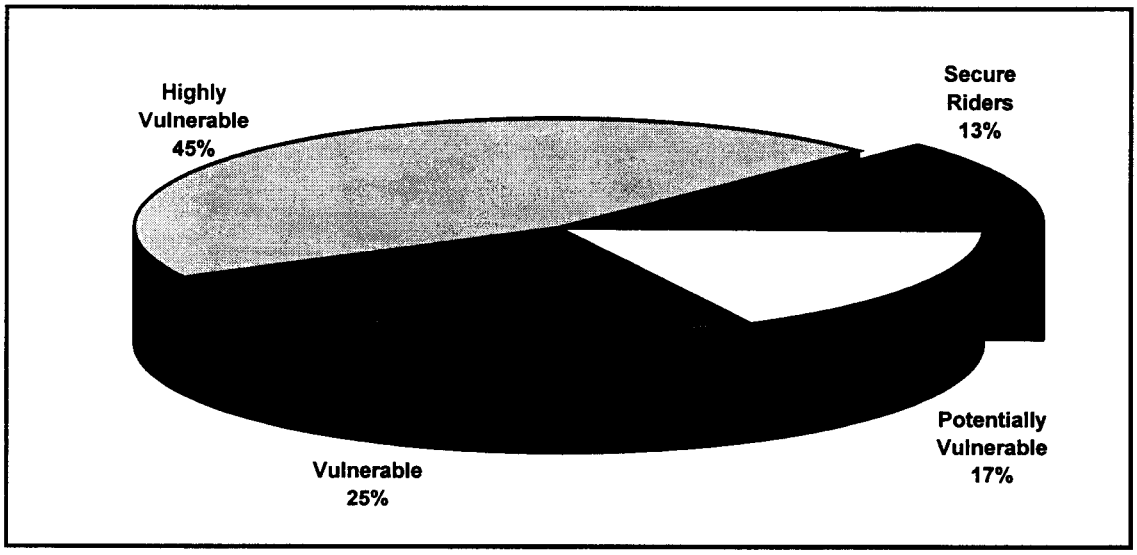
4) Respondents who did not give CTA the highest score to any of the three questions are grouped together and are considered "highly vulnerable riders."

While this represents a relatively strict criteria for establishing the difference between a secure and vulnerable rider, any person who is not completely satisfied with the system should be considered at least potentially vulnerable. The objective over the years should be to increase the proportion of respondents who are completely satisfied with the CTA.

Segment Size

- One out of eight (13%) of all CTA riders can be considered "secure riders" – that is, they are both very satisfied with and loyal to the CTA. At the present time, most riders (70%) should be considered "vulnerable" riders in that they gave CTA the highest score to only one or none of the questions that determine customer loyalty. An additional 17 percent are "potentially vulnerable."

FIGURE 17
CUSTOMER LOYALTY SEGMENTS



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Segment Characteristics

- Only slightly more than one out of three (36%) potentially vulnerable riders are "very satisfied" with riding the CTA. On the other hand, few (4%) potentially vulnerable riders are dissatisfied with riding the CTA. Moreover, they are generally loyal to the system. While, as the name suggests, this segment is potentially vulnerable, it is likely that they will continue to ride as long as current service levels or the perceived value of service do not change significantly.

- Only slightly more than one out of ten (11%) vulnerable riders are "very satisfied" with riding the CTA. Moreover, nearly one out of four (23%) say they are dissatisfied or are neither satisfied nor dissatisfied. While it is likely that the majority (69%) will continue riding the CTA, they should not be considered loyal riders. It is likely that this segment is continuing to ride only because other factors outweigh their present levels of dissatisfaction. Any further degradation of service and/or decrease in perceived value of service is likely to cause this segment to consider no longer riding.

- Among highly vulnerable riders, nearly half (45%) say they are dissatisfied or have neutral opinions regarding riding the CTA. Similarly, nearly half (45%) say they possibly will stop riding or may or may not continue to ride. This would suggest that this segment is riding largely because they have to rather than by choice, and, should alternatives arise, they will no longer ride the CTA.

TABLE 10
SATISFACTION WITH AND LOYALTY TO CTA BY CUSTOMER LOYALTY SEGMENTS

	All Riders	Secure Riders	Potentially Vulnerable	Vulnerable	Highly Vulnerable
% Very Satisfied	21.8	100.0	35.5	11.4	0.0
% Definitely Will Continue Riding	43.7	100.0	79.9	69.3	0.0
% Definitely Would Recommend	32.2	100.0	84.3	19.3	0.0

- These segments are clearly differentiated by their demographic and some ridership characteristics. These differences provide additional support to some of the assumptions outlined above.

  - "Secure riders" are more likely than "vulnerable riders" to be train riders only. Conversely, "highly vulnerable" riders are more likely to be bus only riders or to use both the bus and train.

  - Contrary to what most believe, "secure riders" are more likely than "vulnerable riders" to be choice or voluntarily dependent riders. A large proportion of "highly vulnerable" riders are transit-dependent riders, suggesting they are very likely to stop riding if another alternative became available.

  - "Secure riders" are more likely to be residents of the north side of Chicago. On the other hand, nearly one out of three "highly vulnerable" riders live on the south side.

  - "Secure riders" are primarily between the ages of twenty-five and forty-four or a senior citizen. "Highly vulnerable" riders are more likely to be younger – between sixteen and twenty-four. Many are students.

- "Secure riders" are more likely to be employed full-time, with correspondingly higher incomes. They are more likely than "highly vulnerable" and "vulnerable" riders to be Caucasian.

- As noted, "highly vulnerable riders" are more likely than riders generally to be students. They are less affluent. An above average proportion of them are of African-American backgrounds.

TABLE 11
CHARACTERISTICS OF CUSTOMER LOYALTY SEGMENTS

	Highly Vulnerable [n = 362]	Vulnerable [n = 198]	Potentially Vulnerable [n = 138]	Secure [n = 103]
Primary Mode				
Bus Only Riders	**42.5%**	37.1%	34.1%	29.9%
Train Only Riders	12.9	24.5	**28.4**	**29.9**
Mixed Mode Riders	**44.5**	38.4	37.5	40.2
Dependence on Transit				
Transit-Dependent	**67.9%**	35.9%	30.2%	24.3%
Voluntarily Dependent	3.5	12.6	9.8	**20.3**
Choice	28.6	51.5	**60.0**	**55.4**
Area of Residence				
Downtown	1.6%	3.9%	2.0%	2.7%
North	24.5	32.4	33.1	**33.9**
Northwest	13.5	13.0	11.5	**19.2**
Suburbs	9.7	10.4	12.7	12.5
West	8.0	4.5	5.0	7.9
Southwest	9.7	11.2	14.1	4.1
South	**32.9**	24.5	21.6	19.9
Gender				
Male	34.0%	42.1%	43.7%	43.2%
Female	**66.0**	57.9	56.3	56.8
Age				
16-17	**11.3%**	8.9%	11.6%	0.0%
18-24	**19.7**	12.4	10.4	5.6
25-34	26.0	30.0	25.7	**32.5**
35-44	17.7	19.6	12.2	**25.4**
45-54	12.6	12.4	17.0	12.8
55-64	6.7	9.6	7.1	4.4
65 and over	6.0	7.0	**15.9**	**19.4**
Income				
Less than $10,000	11.4%	12.1%	15.6%	12.8%
$10,000 - $20,000	**25.5**	13.5	11.0	13.2
$20,000 - $30,000	18.6	21.8	13.2	11.8
$30,000 - $40,000	19.1	17.4	19.8	20.3
$40,000 - $50,000	11.1	8.5	13.6	12.7
$50,000 - $60,000	5.8	7.3	9.2	4.7
More than $60,000	8.4	19.4	17.6	**24.6**
Employment Status				
Employed Full-Time	55.9%	60.5%	50.7%	**66.2%**
Employed Part-Time	9.7	9.8	14.0	8.6
Not Employed Outside The Home	4.5	0.5	1.2	3.8

TABLE 11
CHARACTERISTICS OF CUSTOMER LOYALTY SEGMENTS

	Highly Vulnerable [n = 362]	Vulnerable [n = 198]	Potentially Vulnerable [n = 138]	Secure [n = 103]
Student	**19.3**	14.5	16.1	3.6
Retired	4.6	7.4	10.7	16.6
Unemployed / Other	6.0	7.3	7.3	1.2
Ethnic Background				
White / Caucasian	36.1%	50.4%	**65.1%**	**63.9%**
African-American	**46.2**	**30.2**	17.8	22.0
Hispanic	9.5	7.0	7.7	5.5
Asian	4.1	5.1	4.5	2.0
American Indian	1.0	1.4	1.6	1.1
Mixed Heritage / Other	3.2	6.0	3.3	5.4

Numbers are highlighted (bold-faced type) to illustrate those differences between segments that are statistically significant based on a chi-square test of association.

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Motivations for Using Public Transportation

Understanding choice and voluntarily dependent riders' motivations for using public transportation among the different rider segments can suggest some possible strategies for ridership retention.

- There are no differences between the customer loyalty segments for the two primary motivators for using public transportation – cost of parking and availability of direct service to their destination.

- "Highly vulnerable" riders who are choice or voluntarily dependent riders generally are not highly motivated by those secondary factors that motivate other riders who choose to ride transit. For example:

  - "Secure" riders who are choice or voluntarily dependent riders are more likely than other loyalty segments to be highly motivated by factors related to traffic congestion, stress, and environmental concerns. It is likely that these factors as well as high levels of satisfaction with service combine to insure customer loyalty.

  - "Potentially vulnerable" riders also are more likely than "vulnerable" and "highly vulnerable" riders to be motivated by factors related to traffic congestion and environmental concerns, although somewhat less so than "secure" riders. "Potentially vulnerable" riders also are more likely to be motivated by the availability of parking. This would suggest that these motivators contribute to this segment's loyalty to CTA and overcomes the lower level of overall satisfaction among this group. It is important to at least maintain current service levels to retain this potentially vulnerable segment.

  - "Vulnerable riders" are more likely to be motivated by the cost of riding compared with driving. Low levels of satisfaction coupled with limited loyalty make those in this segment highly vulnerable to any future fare increases.

TABLE 12
MOTIVATIONS FOR USING PUBLIC TRANSPORTATION AMONG CHOICE AND VOLUNTARILY DEPENDENT RIDERS BY CUSTOMER LOYALTY SEGMENTS (PERCENT MAJOR FACTOR)

	All Riders	Secure Riders	Potentially Vulnerable	Vulnerable	Highly Vulnerable
Parking too expensive	66.8	65.5	70.9	65.0	66.1
Direct service to destination	65.7	70.9	71.4	65.5	57.5
Avoid traffic **	55.3	**65.5**	**60.5**	54.0	45.4
Not enough parking *	54.6	57.4	**62.6**	46.0	55.2
Less stressful *	49.4	**70.5**	49.7	46.4	38.3
Cheaper than driving *	48.1	52.3	50.6	**56.1**	34.3
Better for environment **	40.7	**53.0**	**46.6**	35.7	33.0
Don't like driving in traffic **	39.7	**51.5**	42.3	32.3	37.6
Faster than driving	37.4	45.0	41.2	37.8	28.7
No car available for trip	17.3	21.1	20.5	17.4	11.7

** $p < .05$ indicates that 5 times out of 100, this large a difference in proportions between groups would occur only by chance, that is there really is no difference in the population; ** $p < .10$ indicates that 5 times out of 100, these large a differences in proportions between groups would occur only chance, that is there really is no difference in the population*

Strengths and Weaknesses of CTA

Respondents were asked to evaluate CTA's performance on the same factors that were measured for their importance in deciding to ride the bus or train. Responses were recorded on a five-point scale where "1" meant CTA is doing a "poor job" and "5" meant CTA is doing an "excellent job." As with importance, respondents focused on one mode only. Riders who use both the bus and train were randomly assigned to one mode. Moreover, because of the number of attributes being evaluated, the list was divided so that every respondent rated twenty of the most important aspects of service. The remaining attributes were divided so that each of the two groups of respondents evaluated approximately twelve other factors.

Bus Travel

Dimensions of Performance

While riders do look at very specific aspects of service, they also tend to group individual aspects of service together into broader dimensions. Factor analysis was used to understand how customers might group service attributes together and to identify the larger underlying dimensions on which customers evaluate transit service. Factor analysis is a statistical procedure that examines the relationships of each of a large number of variables with every other one to determine which are highly correlated with the others. The process ends with a smaller set of factors or summary variables that reflect underlying or latent dimensions. The resulting set of variables provides a better representation of the way in which riders evaluate transit service than by each of the individual measures separately.

- Bus riders evaluate service on ten basic dimensions. The following table illustrates those attributes of service that correlate with each dimension. Attributes may be included in more than one dimension. The score shown is a factor loading which is similar to a correlation score. The score runs from 0 to 1. The higher the score the greater the correlation to that factor. Factors are given names based on the attributes that load into that dimension.

  - It should be noted that in some cases, variables are highly correlated with dimensions that are different than might be expected – for example, smoothness of ride correlates with driver attributes rather than with comfort of the ride as might be expected. This would suggest that riders think about attributes and combine attributes for evaluations in a way that is different from the traditional performance indicators used by transit.

TABLE 13
DIMENSIONS OF PERFORMANCE – BUS TRAVEL

	Appear-ance	Communi-cations	Comfort of Ride	Cost / Value	Driver Attributes
Cleanliness of Bus Exterior	.85				
Cleanliness of Bus Interior	.75				
Comfort of Seats	.64				
Cleanliness of Area @ Stops	.60				
Personal Safety on Bus Related to Behavior of Others	.59				
Shelters / Buses Clean of Graffiti / Etchings	.40				
Availability of Printed Schedules for All Routes		.76			
Availability of Route/Schedule Information at Stops		.70			

TABLE 13
DIMENSIONS OF PERFORMANCE – BUS TRAVEL

	Appear-ance	Communi-cations	Comfort of Ride	Cost / Value	Driver Attributes
Driver Explains Reasons for Delays / Problems		.68			
Clear / Timely Stop Announcements		.52			
Ease of Getting On / Off Bus			.76		
Availability of Seats on Bus			.73		
Availability of Grab Bars / Hand Rails			.59		
Comfortable Temperature			.55		
Driver Operates Bus Safely			.39		
Crowding on the Bus			.37		
Cost of One-Way Ride				.78	
Cost of Transfer				.78	
Cost of Monthly Pass				.72	
Value of Service for Fare Paid				.50	
Crowding on the Bus				.39	
Driver's Knowledge of Routes / Schedules / System					.70
Courtesy of Driver					.62
Smoothness of Ride					.59
Professional Appearance					.57
Ease of Making Transfers					.51
Ease of Making Connections					.49
Driver Operates Bus Safely					.44

	Ease of Use	Service Delivery	Safety / Security	Access to Service	Comfort at Stops
Ease of Paying Fare	.60				
Visibility of Route Names / Numbers on Outside	.57				
Travel Time	.50				
Time Between Buses		.77			
On-Time Performance		.61			
Knowing When Next Bus Arrives		.49			
Wait Time When Transferring		.46			
Safety From Crime On Bus			.74		
Safety From Crime at Stops			.69		
Safety at Stops Related to Behavior of Others			.62		
Availability of Stop Where Live				.78	
Availability of Stop Where Work				.57	
Ease of Getting Information by Phone				.48	
Ease of Getting Passes / Tokens				.46	
Availability of Shelters					.76
Availability of Seats @ Stops					.66

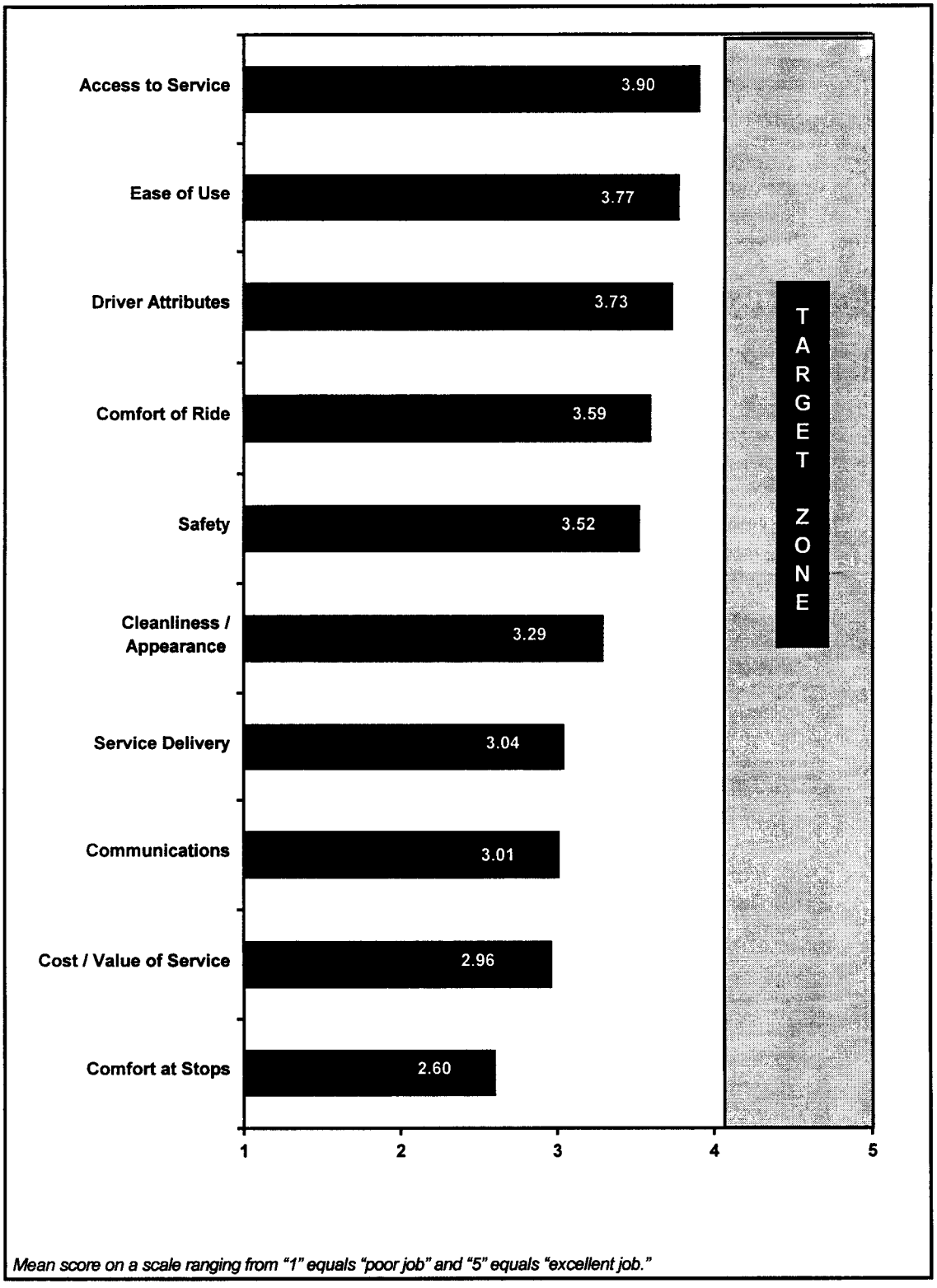
Illustrated are factor loadings or correlation coefficients. A correlation coefficient ranges from 0 to 1. The higher the coefficient, the greater the correlation between the individual variable and the overall dimension. Coefficients greater than .8 can be considered a high correlation; between .4 and .8 is a moderate correlation; less than .4 is a low correlation. Only those variables with correlation coefficients greater than .35 are included in the factor.

CTA Performance

A performance score was computed for each dimension by averaging together the scores for the individual attributes contained in the dimension. This score ranges from "1" meaning a "poor job" to "5" meaning an "excellent job." A target zone for performance is established as a score ranging between four (4) and five (5). This performance rating would be achieved if the majority of respondents give the agency ratings greater than four for all variables included in the dimension and few respondents give the agency low ratings (three or less). Again, while this may appear to be a strict criteria for establishing the target zone, only customers who feel the agency is doing an excellent job can be considered truly loyal customers. Moreover, research has shown that respondents tend to skew their responses toward the positive end of a performance scale, rarely giving below average or poor scores except in those cases where service quality is extremely poor.

- Performance falls outside the target zone – between four and five – for all factors.
- Bus riders give the CTA the highest ratings for:
  - Access to service,
  - Ease of use, and
  - Driver attributes.
- Bus riders give the CTA the lowest ratings for:
  - Comfort at stops,
  - Cost / value of service,
  - Communications, and
  - Service delivery.

FIGURE 18
CTA PERFORMANCE ON PRIMARY PERFORMANCE DIMENSIONS – BUS TRAVEL



Mean score on a scale ranging from "1" equals "poor job" and "5" equals "excellent job."

Performance Factors That Drive Customer Loyalty

A major goal of this research was to demonstrate the relative impact of the various satisfiers and dissatisfers on overall perceptions of service quality at an agency, and to identify actions that will lead to increased satisfaction. It would be difficult to address all ten dimensions of bus travel performance. Therefore, analysis focused on identifying those performance factors where targeted improvements are likely to have the greatest impact on customer loyalty.

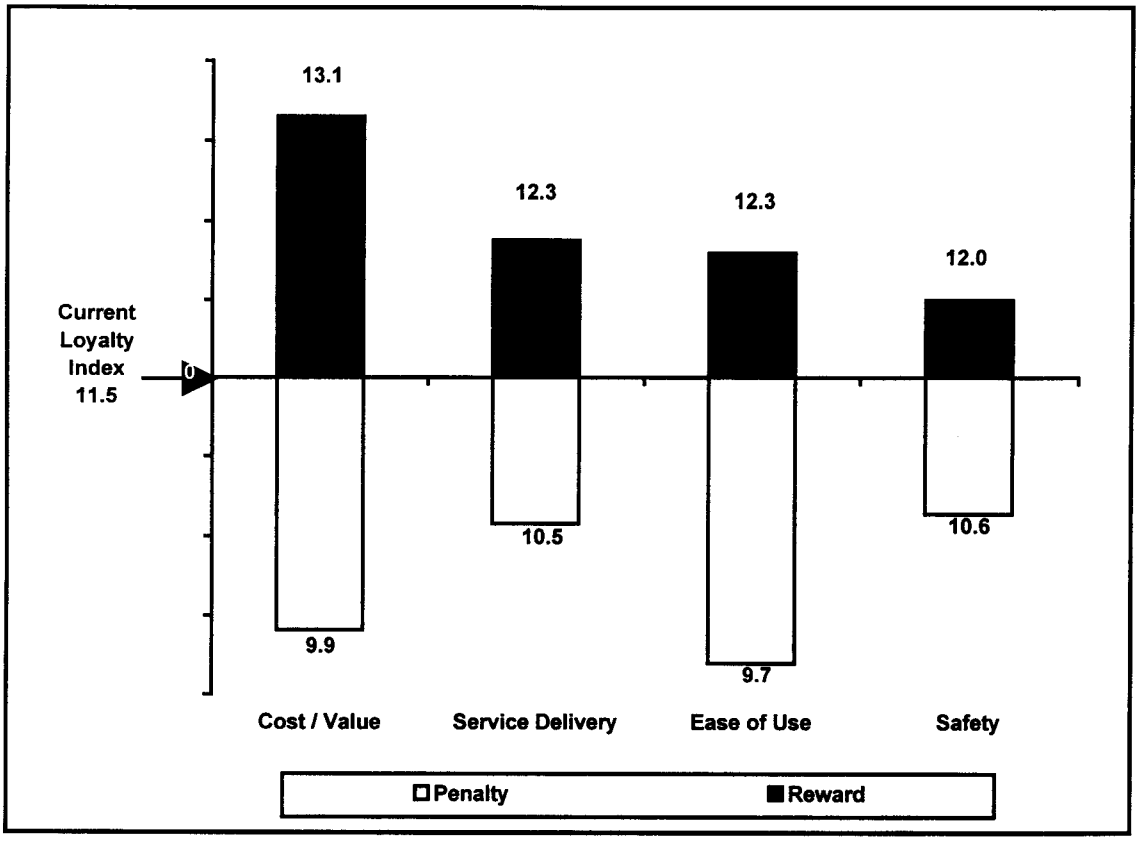
Regression analysis was used to identify those factors that have the greatest influence on customer loyalty. Regression analysis is a statistical technique that develops an equation that relates a dependent variable (in this case, the customer loyalty index) with one or more independent or explanatory variables (the ten performance dimensions).

- Four factors have the greatest influence on customer loyalty. These include:
  - Cost / value of service,
  - Ease of use,
  - Service delivery, and
  - Personal safety and security.

The regression equation resulting from this analysis can be used to estimate the change that would occur in customer loyalty if CTA improves service in any single area. Conversely, the equation can be used to estimate the change that would occur in overall performance if quality of service declines in any one area. The following figure illustrates the positive – **"reward"** – and negative – **"penalty"** – impact on customer loyalty if the mean rating for a factor increased to a five – excellent job – or conversely decreased to a one – poor job.

- Changes in performance in terms of the cost and value of service will have both the greatest positive and negative impacts on customer loyalty. That is, any fare increase or other fare restructuring without a corresponding increase in the quality of service could have significant negative impacts on customer loyalty.
- Improvements in the other factors all have nearly equal impact on customer loyalty with improvements in service delivery and ease of use offering somewhat greater potential rewards than improvements in safety and security.
  - On the other hand, decreases in service in terms of ease of use has a greater negative impact on customer loyalty than do decreases in performance in terms of service delivery and safety and security.
- It should be noted that perfect performance on all four dimensions would result in complete customer loyalty – that is, a customer loyalty index of 15. Moreover, increasing the average score one unit – for example, from a 2.96 to a 3.96 for cost / value of service – on all four dimensions would result in a customer loyalty index of 13.7, or within reach of the target zone.

FIGURE 19
REWARD / PENALTY ANALYSIS – EFFECT OF CHANGES IN SERVICE ON LOYALTY



Rail Travel

Dimensions of Performance

As with bus travel, factor analysis was used to identify the broad dimensions train riders use to evaluate service. See page 58 for a description of factor analysis.

- Train riders evaluate service on nine basic dimensions. The following table illustrates those attributes of service that correlate with each dimension. Attributes may be included in more than one dimension. The score shown is a factor loading which is similar to a correlation score. The score runs from 0 to 1. The higher the score the greater the correlation to that factor. Factors are given names based on the attributes that load into that dimension.

  - Again, it should be noted that in some cases, variables are highly correlated with dimensions that are different than might be expected – for example, professional appearance of the driver correlates with appearance, as would be expected, but also with access to service, a surprising result. This might suggest that train riders see the approachability of the conductor based on their professional appearance as an indicator as to how accessible service is.

TABLE 14
DIMENSIONS OF PERFORMANCE – RAIL TRAVEL

	Appear-ance	Commu-nications	Safety / Security	Ease of Use	Cost / Value
Cleanliness of Exterior	.80				
Cleanliness of Interior	.80				
Cleanliness of Stations	.73				
Smoothness of Ride	.61				
Comfort of Seats	.61				
Seats / Benches at Stations	.47				
Trains / Stations Clean of Graffiti and Etchings	.43				
Professional Appearance of Conductor	.37				
Courtesy / Helpfulness of Station Agents		.69			
Availability of Information at Stations		.69			
Courtesy of Conductors		.64			
Conductor Explains Reasons for Delays / Problems		.63			
Clear / Timely Stop Announcements		.62			
Availability of Printed Schedules for All Routes		.61			
Ease of Getting Phone Information		.36			
Safety on Train Related to Behavior of Others			.76		
Safety at Stations Related to Behavior of Others			.75		
Safety From Crime While Riding			.75		

TABLE 14
DIMENSIONS OF PERFORMANCE – RAIL TRAVEL

	Appear-ance	Commu-nications	Safety / Security	Ease of Use	Cost / Value
Safety From Crime While Waiting			.70		
Conductor's Knowledge of Routes / Stations / System			.50		
Ease of Paying Fare				.76	
Visibility of Route Names / Colors on Outside				.75	
Names of Stations Visible From Inside Train				.57	
Ease of Getting On / Off Train				.52	
Ease of Getting Passes / Tokens				.42	
Availability of Parking @ Stations				.41	
Cost of One-Way Ride					.78
Cost of Transfer					.76
Cost of Monthly Pass					.71
Value of Service for Fare Paid					.53

	Service / Delivery	Comfort of Ride	Access to Service	Safe Operation
Time Between Trains	.64			
Wait Time When Transferring	.62			
On-Time Performance	.60			
Knowing What Time Train Arrives	.57			
Ease of Making Transfers	.53			
Ease of Making Connections	.43			
Travel Time by Train	.32			
Availability of Seats on Train		.72		
Crowding on Trains		.62		
Comfortable Temperature on Train		.50		
Availability of Grab Bars / Hand Rails		.45		
Availability of Station Where Work			.70	
Availability of Station Where Live			.64	
Professional Appearance of Conductor			.54	
Safe / Competent Train Operation				.70

Illustrated are factor loadings or correlation coefficients. A correlation coefficient ranges from 0 to 1. The higher the coefficient, the greater the correlation between the individual variable and the overall dimension. Coefficients greater than .8 can be considered a high correlation; between .4 and .8 is a moderate correlation; less than .4 is a low correlation. Only those variables with correlation coefficients greater than .35 are included in the factor.

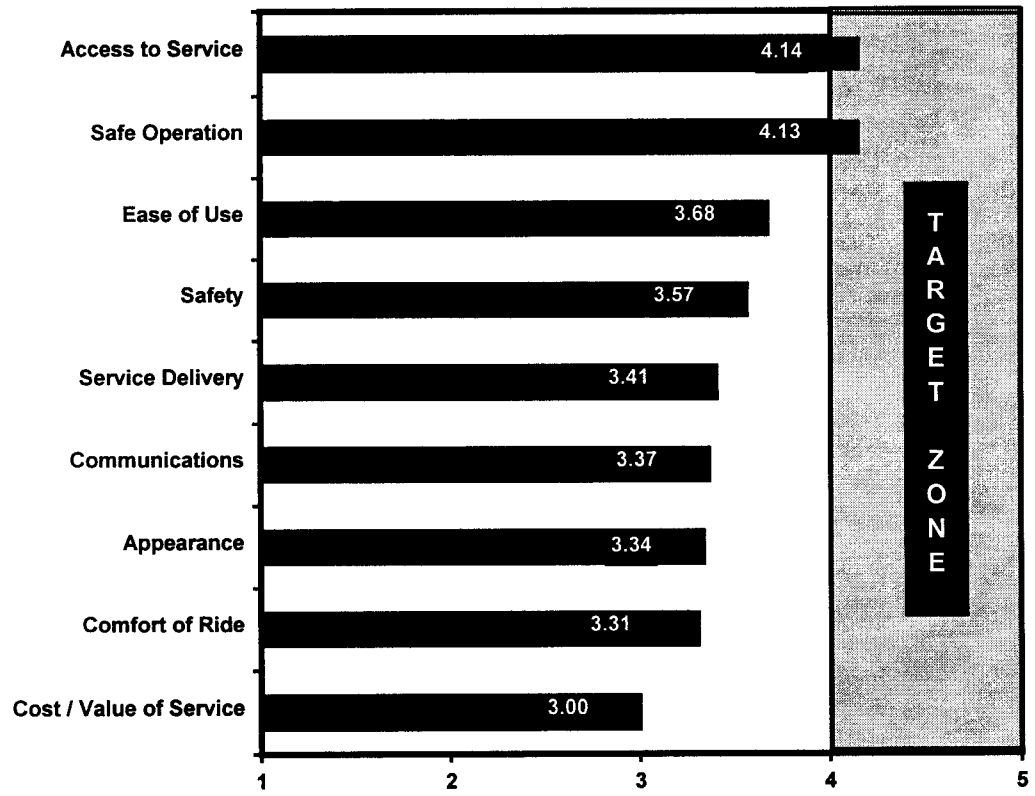
CTA Performance

A performance score was computed for each dimension by averaging together the scores for the individual attributes contained in the dimension.

- Performance falls outside the target zone – between four and five – for all but two factors – access to service and safe operation of the trains. As with bus travel, the goal should be to achieve scores between four and five. This occurs where the majority of respondents give the agency "excellent" or "very good" ratings and few give the agency low (three or less) ratings. Only customers that are truly satisfied with service can be considered loyal customers.

- Train riders give the CTA the lowest ratings for:
  - Cost / value of service,
  - Comfort of ride,
  - Appearance of trains,
  - Communications, and
  - Service delivery.

FIGURE 20
CTA PERFORMANCE ON PRIMARY PERFORMANCE DIMENSIONS – RAIL TRAVEL



Mean score on a scale ranging from "1" equals "poor job" and "5" equals "excellent job."

Performance Factors That Drive Customer Loyalty

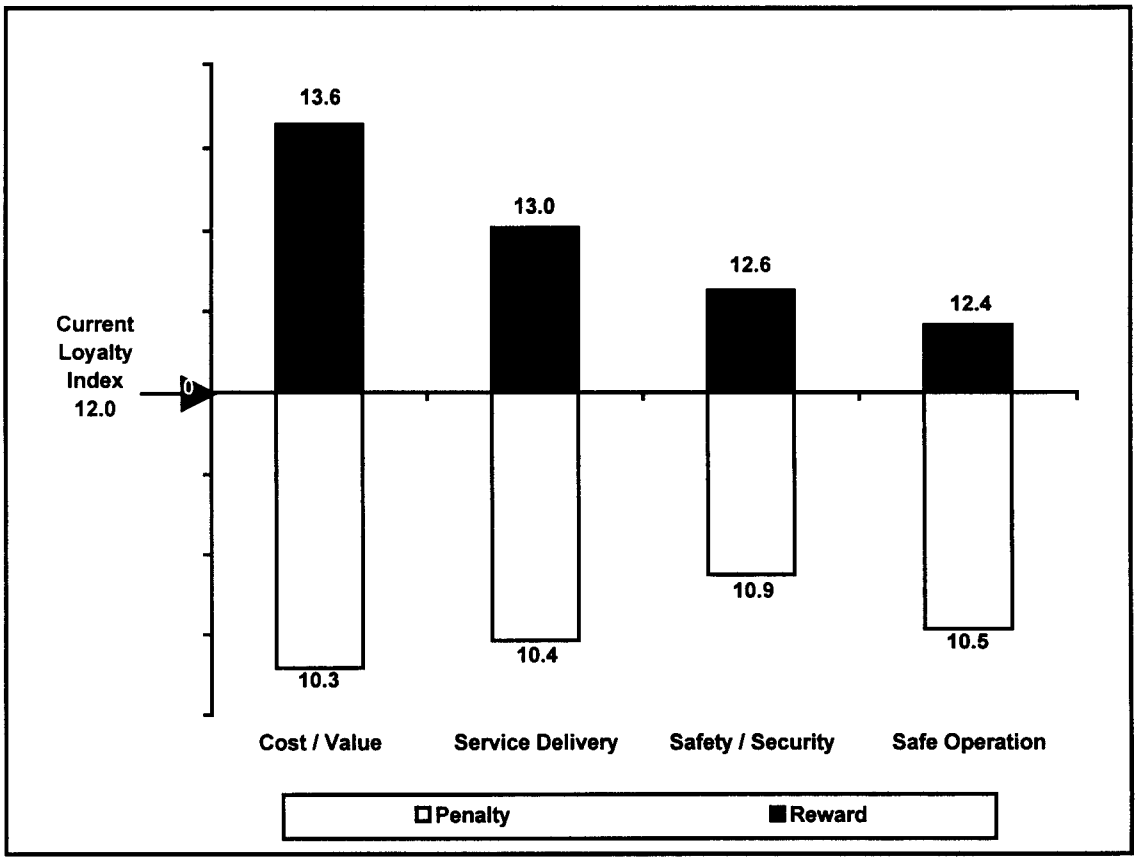
Regression analysis was used to identify those factors that have the greatest influence on customer loyalty. See page 62 for a description of this analysis.

- Four factors have the greatest influence on customer loyalty. These include:
  - Cost / value of service,
  - Service delivery,
  - Safe operation of the train, and
  - Personal safety and security.

- As with bus service, changes in performance in terms of the cost and value of service will have the greatest positive impact on customer loyalty. Improvements in service delivery also are likely to have a large positive impact on customer loyalty.
- Improvements in personal safety and security and in the safe operation of the train appear to have nearly equal positive impacts on customer loyalty.
- On the other hand, decreases in service on any dimension appear to have a nearly equal negative impact on customer loyalty.

- As with bus travel, perfect performance on all four dimensions would result in complete customer loyalty – that is, a customer loyalty index of 15. Moreover, increasing the average score one unit – for example, from a 3.04 to a 4.04 for cost / value of service – on all four dimensions would result in a customer loyalty index of 14.3, by that achieving the target zone.

FIGURE 21
REWARD / PENALTY ANALYSIS – EFFECT OF CHANGES IN SERVICE ON LOYALTY



Possible Strategies to Improve Customer Loyalty

An important function of customer satisfaction research is to provide insight into how to best allocate resources and to identify strategies to improve customer loyalty. The reward-penalty analysis in the previous section demonstrated those broad dimensions of customer service that have the greatest impact on customer loyalty. Focus in this section is on identifying those specific aspects of service within these broad dimensions that should be the focus of any quality improvement effort.

Bus Travel

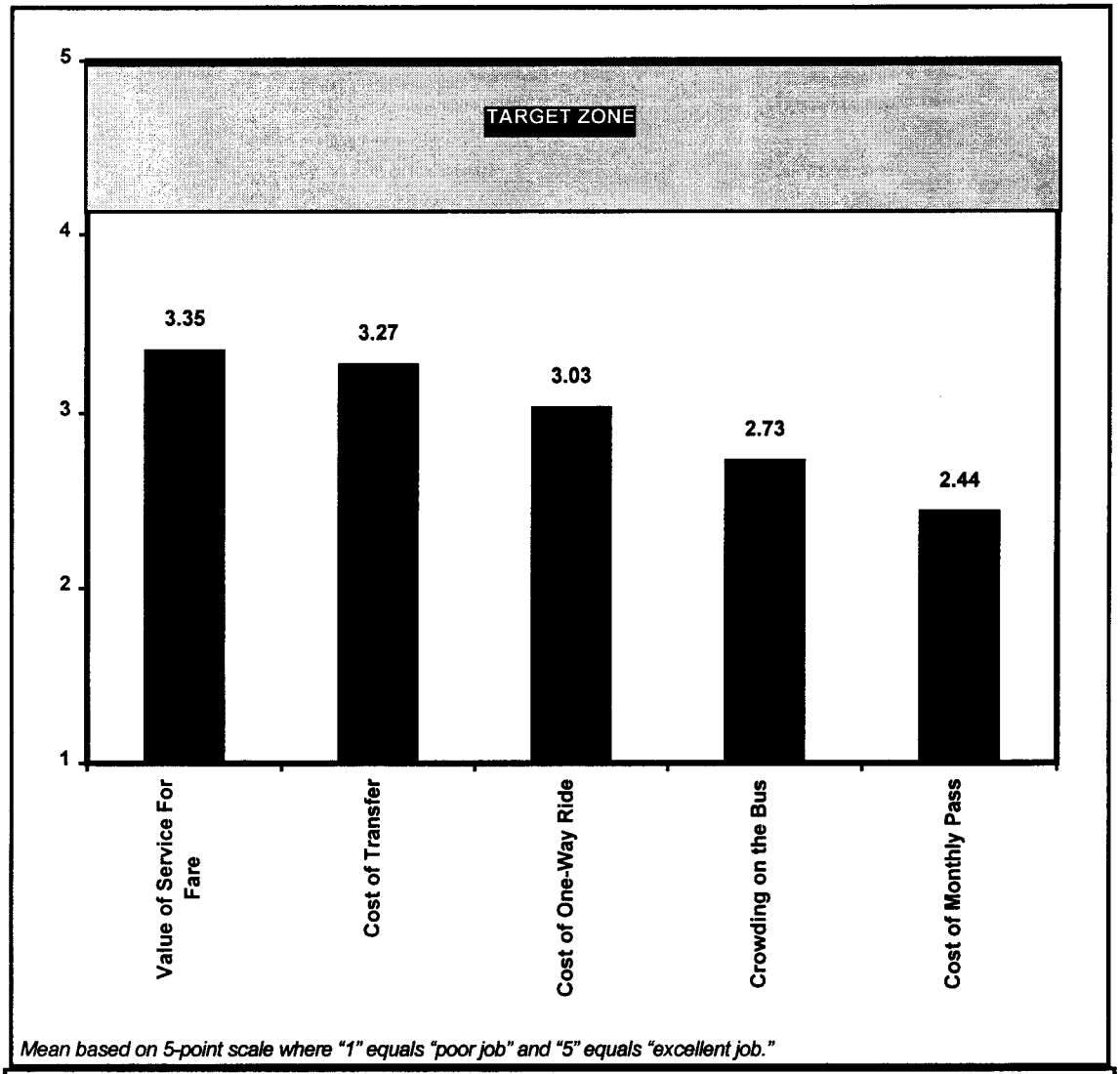
Cost / Value of Service

Five attributes were included under the dimension "Cost / Value of Service." These attributes included:

- Cost of one-way ride,
- Cost of transfer,
- Cost of monthly pass,
- Value of service for fare paid, and
- Crowding on the bus.

- No attribute falls within the target zone.
- The perceived value of service for the fare paid receives the highest scores of all attributes contained in this dimension. Moreover, it is the individual attribute within the dimension that has the greatest influence on customer satisfaction. A one-unit change in the rating for value of service for the fare paid – from 3.35 to 4.45 – would result in an increase in customer loyalty from 11.5 to 12.2.
- CTA receives significantly lower ratings for the cost of a monthly pass and the cost of a one-way ride. However, only the cost of a one-way ride has a significant influence on customer loyalty. A one-unit change in the rating for the cost of a one-way ride – from 3.35 to 4.45 – would result in an increase in customer loyalty from 11.5 to 12.0. Improvements in the cost of a monthly pass would have the least impact on customer loyalty, due possibly to the use of monthly passes by a limited target market – frequent riders.

FIGURE 22
COST / VALUE OF SERVICE BUS – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
Value of Service For Fare Paid	13.9	10.1	27.1	25.1	23.8	.71
Cost One-Way Ride	21.3	14.1	26.7	16.5	21.4	.48
Cost of Transfer	17.3	8.9	27.1	22.6	24.1	.03
Crowding on Bus	24.3	14.5	35.5	14.8	10.9	.03
Cost Of Monthly Pass	36.7	14.6	26.5	12.7	9.5	.01

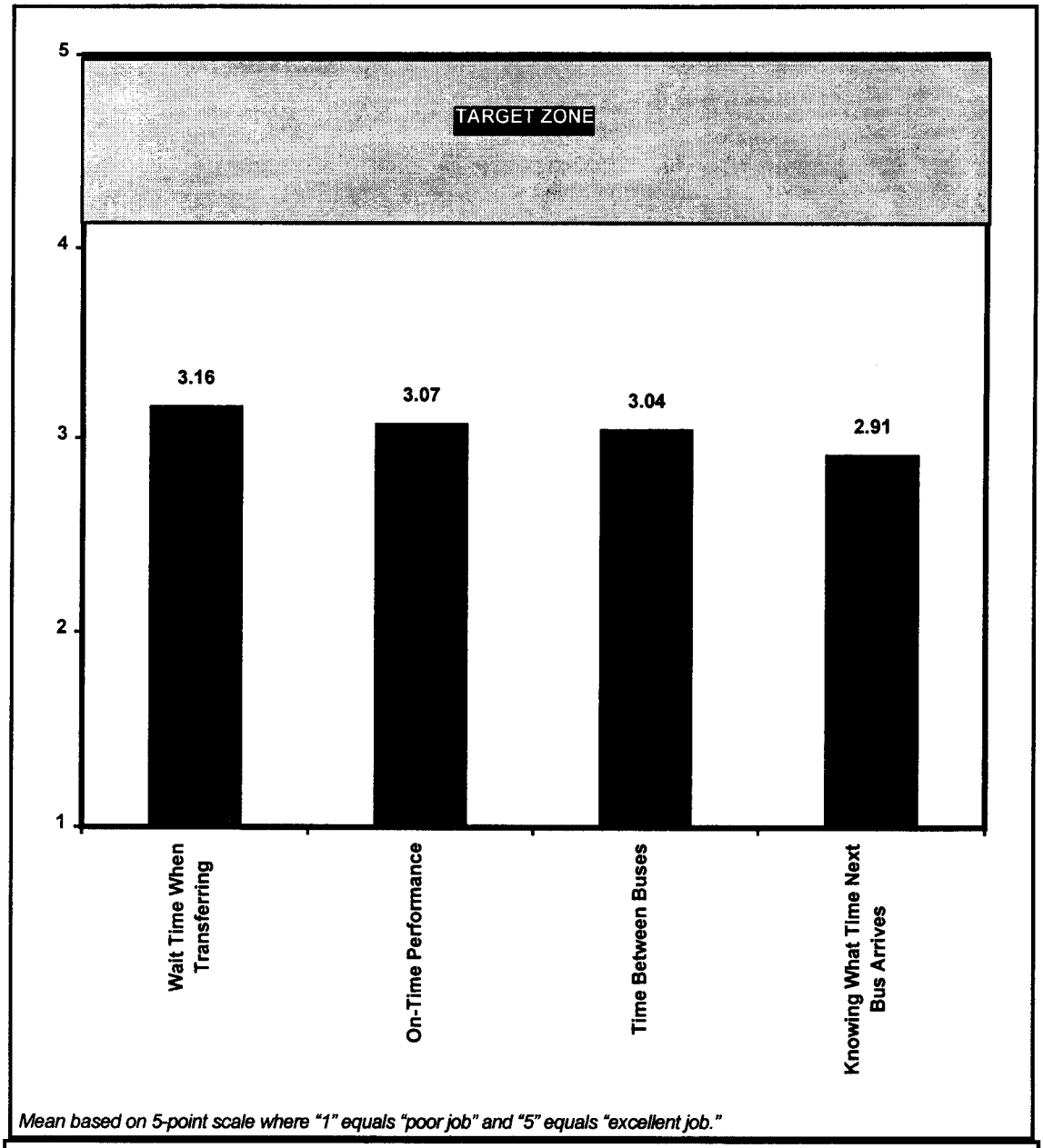
Service Delivery

Four attributes were included under the dimension "Service Delivery." These attributes included:

- Time between buses,
- On-time performance,
- Knowing when next bus arrives, and
- Wait time when transferring.

- Again, no attribute falls within the target zone.
- CTA receives the lowest ratings for knowing what time the next bus arrives. Moreover, improvements in this attribute are likely to have a significant effect on customer loyalty. A one-unit change in the rating for knowing what time the next bus arrives – from 2.91 to 3.91 – would result in an increase in customer loyalty from 11.5 to nearly 12.
- CTA also receives relatively low ratings for on-time performance, improvements in which will have the greatest impact on customer loyalty. A one-unit change in the rating for on-time performance – from 3.07 to 4.07, that is, within the target zone – would result in an increase in customer loyalty from 11.5 to 12.1.

FIGURE 23
SERVICE DELIVERY BUS – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
On-Time Performance	17.3	11.5	34.5	20.5	16.2	.55
Knowing What Time Next Bus Arrives	25.2	14.1	24.6	16.2	19.8	.46
Time Between Buses	17.3	15.1	29.4	23.0	15.2	.03
Wait Time When Transferring	10.6	12.1	43.1	19.6	14.6	.03

Ease of Use

Three attributes were included under the dimension "Ease of Use." These attributes included:

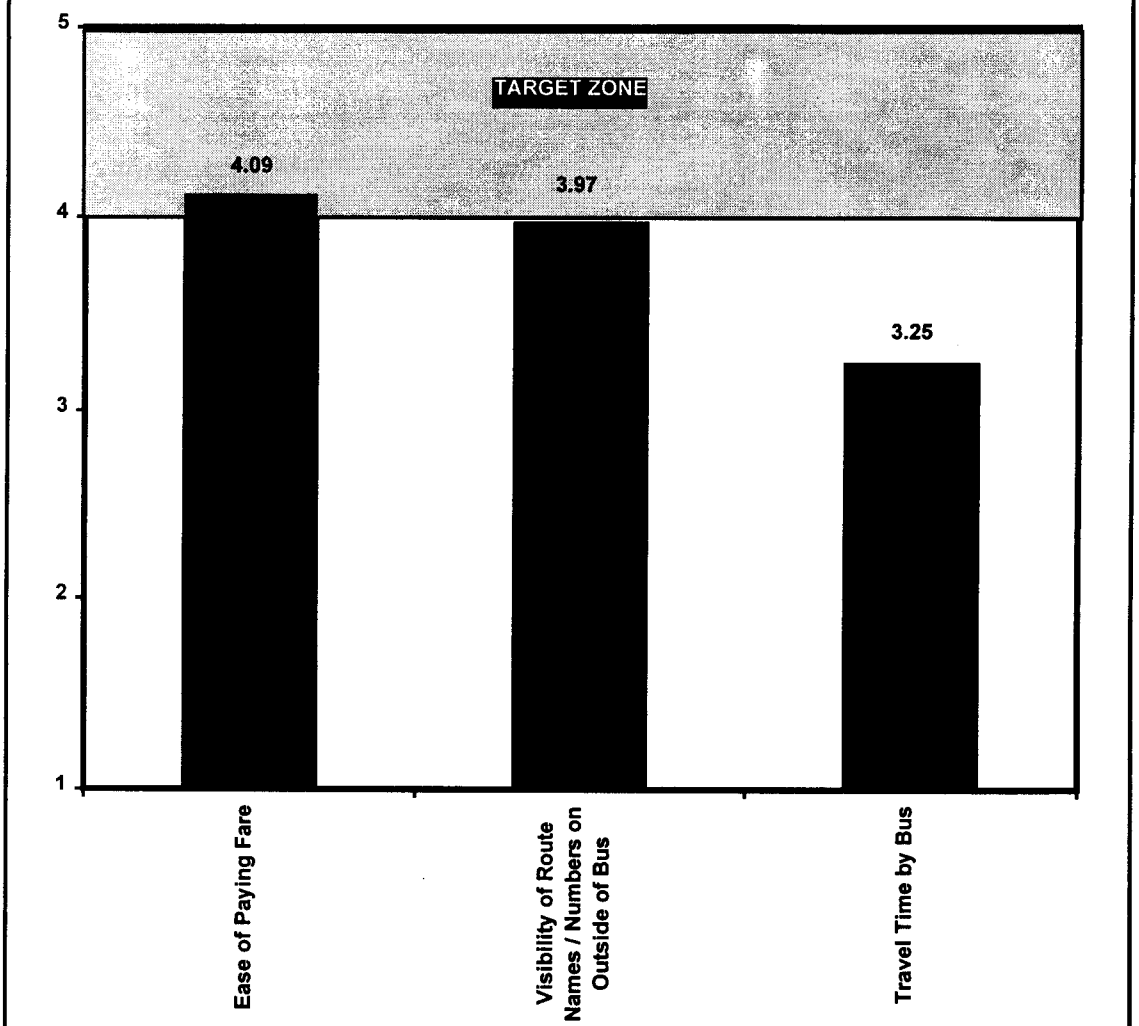
- Ease of paying fare,
- Visibility of route names and numbers on outside of bus, and
- Travel time by bus compared with that by car.

- Two attributes fall just within or near the target zone – ease of paying fare and visibility of route names and numbers on outside of the bus. Travel time by bus compared with that by car falls well below the target zone.

  - Improvements in travel time by bus would have the most significant impact of any aspect in this dimension on customer loyalty. A one-unit change in performance for travel time by bus – from 3.25 to 4.25, that is, within the target zone – would result in an increase in customer loyalty from 11.5 to nearly 12.3 .

  - While visibility of route names and numbers does not have a significant impact on customer loyalty, current efforts should be maintained in this area as it is one of the few bus attributes that presently falls near or within the target zone.

FIGURE 24
EASE OF USE BUS – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
Travel Time by Bus	12.1	14.4	30.4	23.0	20.1	.88
Ease of Fare Payment	5.3	2.8	17.1	27.0	47.7	.64
Visibility of Route Names / Numbers	5.9	5.0	17.1	30.1	41.9	.10

Personal Safety / Security

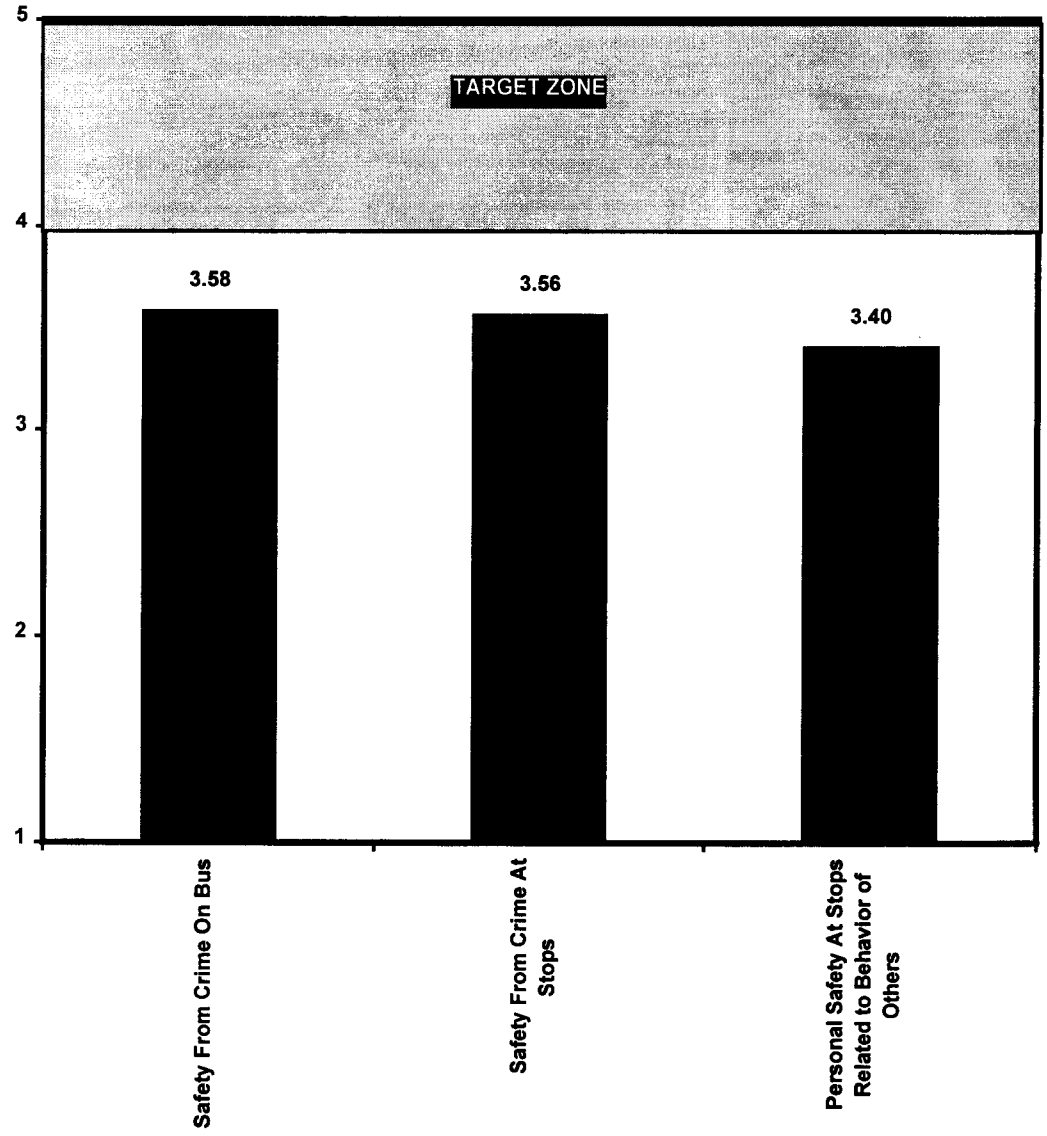
Three attributes fall under the dimension "Personal Safety / Security." These attributes included:

- Safety from crime while riding the bus,
- Safety from crime when getting on and off the bus, and
- Personal safety at the stops related to the behavior of others.

- All attributes related to personal safety and security receive nearly the same performance ratings.

  - Improvements in safety at the stops will have a greater impact on customer loyalty than will improvements to safety while riding. Moreover, improvements in personal safety as it relates to the behavior of others will have a greater impact than improvements in safety from crime. A one-unit change in the rating for personal safety while waiting for the bus related to the behavior of others – from 3.40 to 4.40, that is within the target zone – would result in an increase in customer loyalty from 11.5 to nearly 12.2 .

FIGURE 25
PERSONAL SAFETY / SECURITY BUS – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
Safety at Stop Related to Behavior of Others	14.8	8.5	23.7	28.3	24.8	.66
Safety From Crime at Stops	12.5	4.5	29.3	22.2	31.6	.39
Safety From Crime While Riding	12.7	5.7	22.5	28.6	30.5	.08

Improvement Opportunities

One other way to identify target improvement opportunities is to classify the transit service elements into four quadrants based on the relative importance of each characteristic in deciding whether to ride the bus and the relative satisfaction with CTA's delivery of each service characteristic. These quadrants provide indicators of potential problems and opportunities. They can be used to set priorities for areas that may require attention as illustrated below:

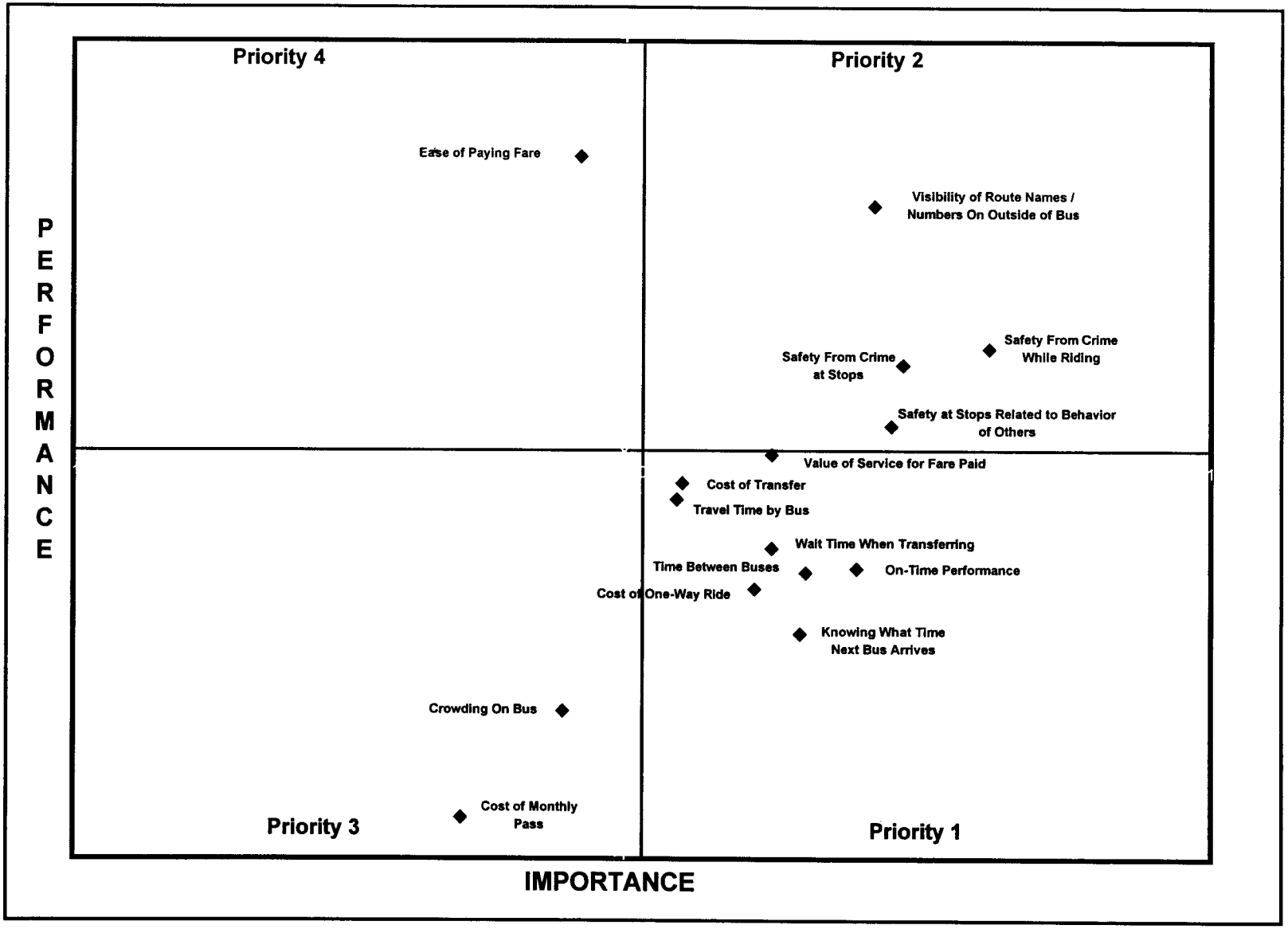
Performance		*Importance* Low	*Importance* High
	High	**Priority 4** *Limited Opportunities*	**Priority 2** *Maintain / Leverage Strengths*
	Low	**Priority 3** *Pursue Areas of Moderate Potential*	**Priority 1** *Eliminate Critical Weaknesses*

To compute relative importance, responses were standardized such that the mean of all responses for the twenty attributes included in the analysis is zero and the standard deviation is one. The same procedure was used for the twenty satisfaction attributes. This analysis allows a more accurate comparison of results between respondents who use scales in different ways as well as allowing for a direct comparison between importance and satisfaction.

Only those elements that are the individual components of the primary dimensions that influence customer loyalty are illustrated in the figure below. A listing of all individual elements contained in each quadrant is included in the Appendix.

- Consistent with the regression analysis, CTA's target improvement opportunities rest primarily in the areas of improving value through improved service delivery and some possible fare restructuring. Specific areas on which to focus improvement efforts are:
  - On-time performance,
  - Knowing what time next bus arrives,
  - Time between buses,
  - Wait time when transferring, and
  - Travel time by bus.
- Improvements in these areas should be made while maintaining the current cost of a one-way ride. Consideration also should be given to increasing value by examining current transfer policies. Allowing riders to use a transfer for a round trip within a specified time period may serve to increase the perceived value of service. Also, changing the pricing of the monthly pass, perhaps through further discounting, will lead to increased value notably among frequent riders.

FIGURE 26
IMPROVEMENT OPPORTUNITIES – BUS



Train Travel

Four factors were identified as having a significant influence on customer loyalty. However, one factor – safe operation of the train – consisted of a single attribute only. Following is a more detailed analysis of performance on the individual attributes in each of the three factors that contain multiple elements as well as an analysis of target improvement opportunities for all attributes in the four dimensions.

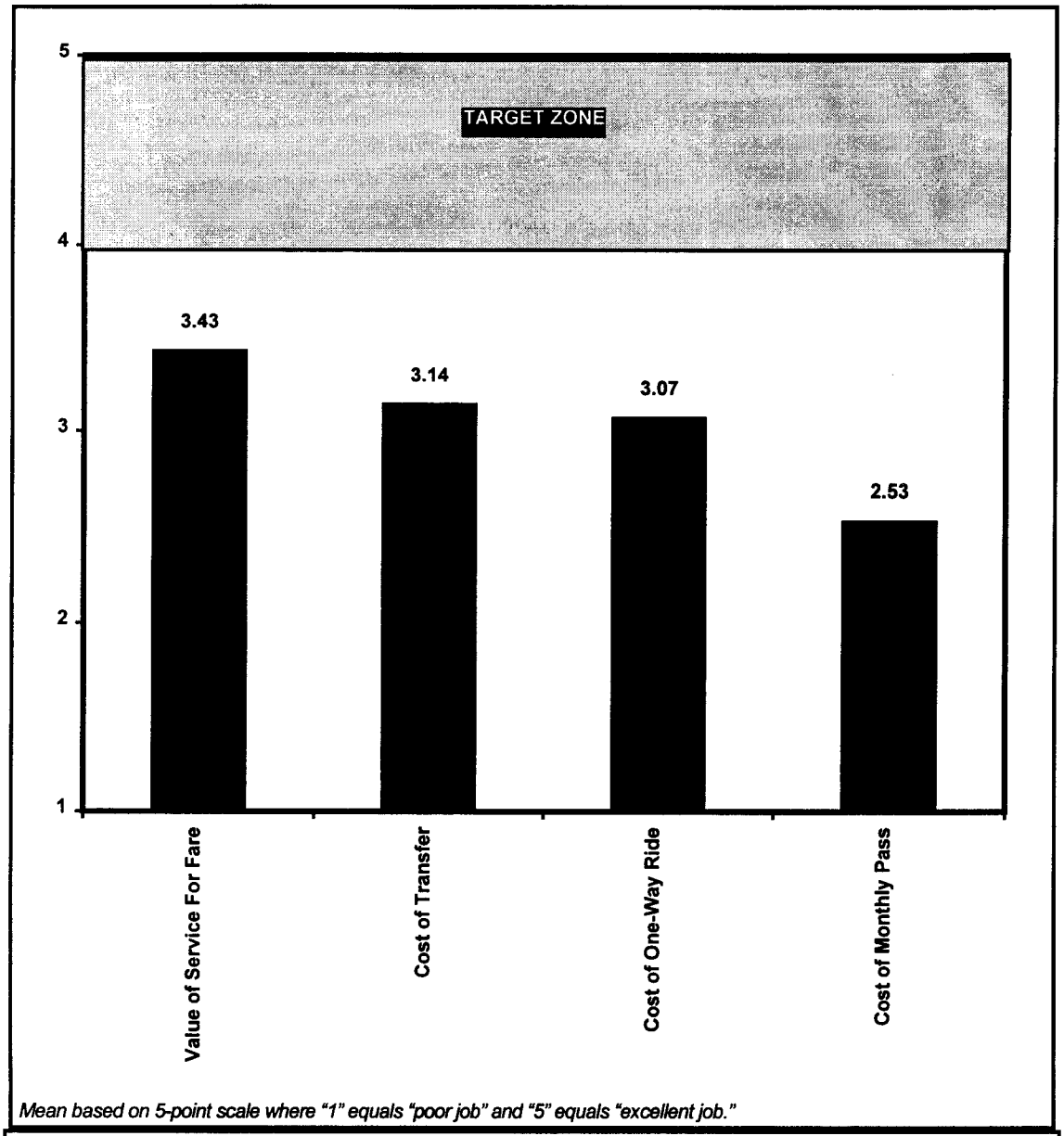
Cost / Value of Service

Four attributes are included under the dimension "Cost / Value of Service." These attributes include:

- Cost of a one-way ride,
- Cost of a transfer,
- Cost of a monthly pass, and
- Value of service for fare paid.

- As with bus service, CTA receives ratings for the individual aspects of cost and value well below the target zone.
  - The value of service for the fare paid and the cost of a one way ride have significant impact on customer loyalty. For example, improving the average performance rating for value of service from a 3.43 to a 4.43, that is, bringing performance ratings for this attribute within the target zone, will result in an increase in the customer loyalty index from 12.0 to 12.7. Similarly, an improvement of one point in the cost of a one-way ride will increase the customer loyalty index to 12.6. Conversely, an increase in the cost of a one-way ride resulting in a decrease in performance rating for cost will result in a decline in customer loyalty from 12.0 to 11.4.

FIGURE 27
COST / VALUE OF SERVICE RAIL – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
Value of Service for Fare Paid	10.1	9.9	28.5	30.5	21.1	.70
Cost of One-Way Ride	17.0	12.9	30.4	25.6	14.1	.59
Cost of Transferring	17.2	10.9	31.1	21.9	18.9	.11
Cost of Monthly Pass	32.9	13.6	32.3	10.6	10.7	-.02

Service Delivery

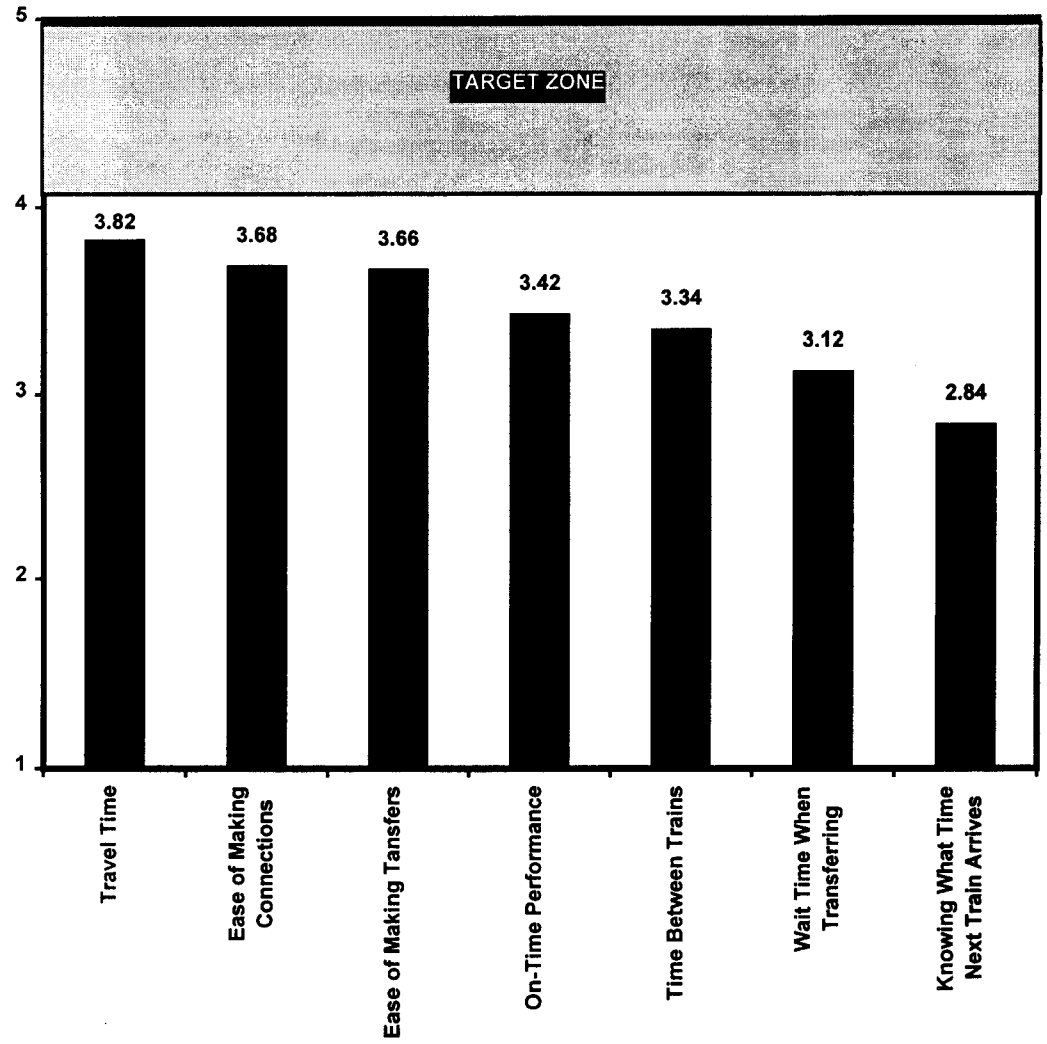
Seven attributes fall under the dimension "Service Delivery." These attributes include:

- Time between trains,
- Wait time when transferring,
- On-time performance,
- Knowing what time the next train arrives,
- Ease of making transfers,
- Ease of making connections, and
- Travel time by train.

- While performance ratings for all attributes fall below the target zone, CTA does best in terms of travel time by train when compared with a car and the ease of making connections and/or transferring from the train to another train or bus. CTA receives the lowest ratings for wait time when transferring and knowing what time the next train arrives.

- Of the attributes contained in this dimension, three have a significant influence on customer loyalty: wait time when transferring, on-time performance, and ease of making transfers to another bus or train. Improvements to wait time when transferring and to on-time performance will have a nearly equal impact on customer loyalty.

FIGURE 28
SERVICE DELIVERY RAIL – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

	% Poor Job				% Excellent Job	Regression Coefficient
Wait Time When Transferring	10.1	16.2	36.4	26.1	11.1	.49
On Time Performance	9.1	11.4	27.6	31.4	20.3	.48
Ease Of Making Transfers	7.2	5.2	27.1	35.3	25.2	.30
Travel Time by Train	4.6	5.0	23.8	36.5	30.1	.06
Time Between Trains	10.9	10.5	30.6	29.6	18.4	.04
Knowing What Time Next Train Arrives	20.6	19.6	30.7	13.5	15.7	.02
Ease in Making Connections	6.8	5.7	27.4	33.2	26.8	-.02

Safety / Security

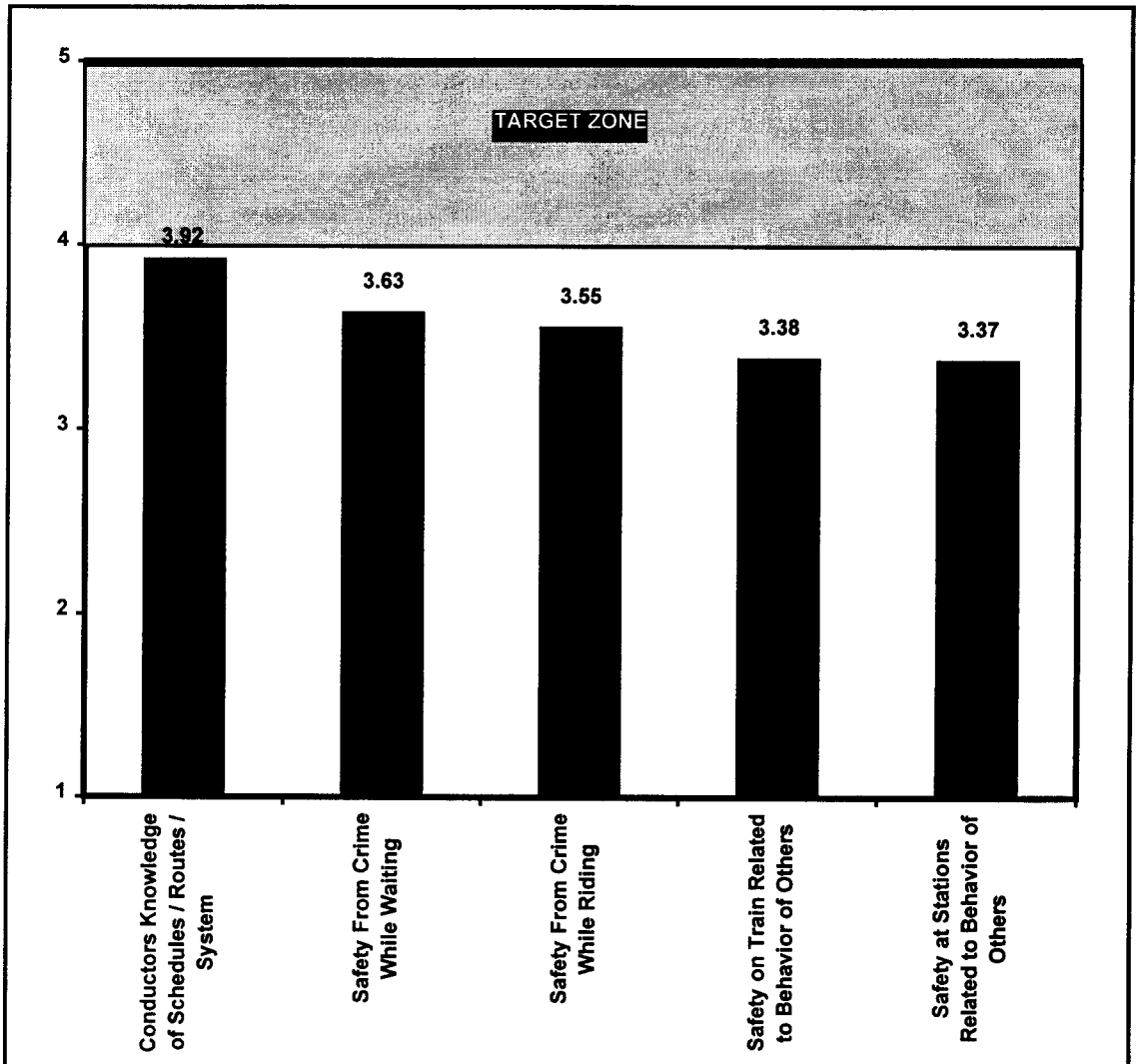
Five attributes fall under the dimension "Safety / Security." These attributes include:

- Personal safety on the train related to the behavior of others,
- Personal safety at the stations related to the behavior of others,
- Safety from crime while riding the train,
- Safety from crime while getting on and off the train, and
- Conductor's knowledge of routes, systems, and stations.

- While performance ratings for all attributes fall below the target zone, CTA does best in terms of conductor's knowledge of the system, routes, and schedules. Ratings for performance in terms of attributes relates to safety from crime and personal safety are nearly the same.

- While improvements in safety as it relates to the behavior of others is likely to have the greatest influence on customer loyalty among bus riders, improvements in safety from crime will have the greatest influence on train riders, notably safety from crime while riding the train.

FIGURE 29
SAFETY / SECURITY RAIL – PERFORMANCE ON INDIVIDUAL ATTRIBUTES



Mean based on 5-point scale where "1" equals "poor job" and "5" equals "excellent job."

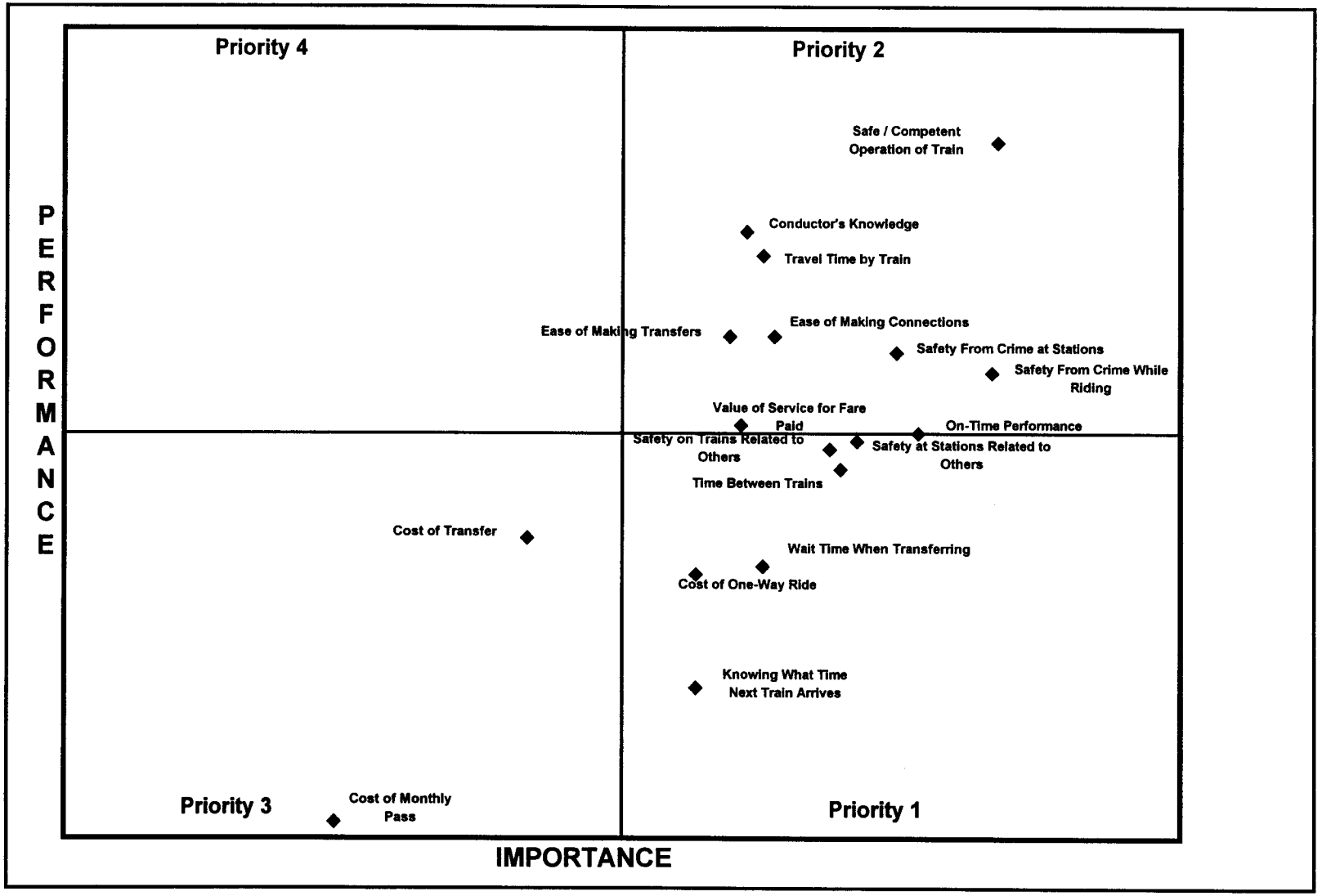
	% Poor Job				% Excellent Job	Regression Coefficient
Safety from Crimes While Riding	8.5	10.4	22.7	33.9	24.5	.60
Safety From Crime at Stations	7.6	6.0	28.9	30.8	26.7	.36
Safety at Stations Related to Behavior of Others	9.9	10.0	32.1	29.0	19	.01
Conductor's Knowledge of System / Routes / Schedules	2.8	5.1	26.3	28.9	36.8	.0
Safety on Train Related to Behavior of Others	10.3	9.4	31.0	30.8	18.4	-.01

Improvement Opportunities

A quadrant analysis, the same as that shown on page 76, was also completed for those attributes related to train travel. Only those elements that are the individual components of the primary dimensions that influence customer loyalty are illustrated in the figure below. A listing of all individual elements contained in each quadrant is included in the Appendix.

- Like bus travel, CTA's target improvement opportunities in rail rest primarily in the areas of improving value through improved service delivery, personal safety, and some possible fare restructuring. The most important areas of service delivery on which to focus improvement efforts are:
  - Knowing what time the next train arrives,
  - Wait time when transferring, and
  - Time between trains.
- Focus also should be on improving and/or maintaining personal safety while waiting for and/or riding the trains both from crime and as it relates to the behavior of others.
- Improvements in these areas should be made while maintaining the current cost of a one-way ride. Consideration also should be given to increasing value by examining current transfer policies. Allowing riders to use a transfer for a round trip within a specified time period may serve to increase the perceived value of service. Also, changing the pricing of the monthly pass may offer some potential for adding value to the train riding experience.

FIGURE 30
IMPROVEMENT OPPORTUNITIES – RAIL



Personal Safety and Security

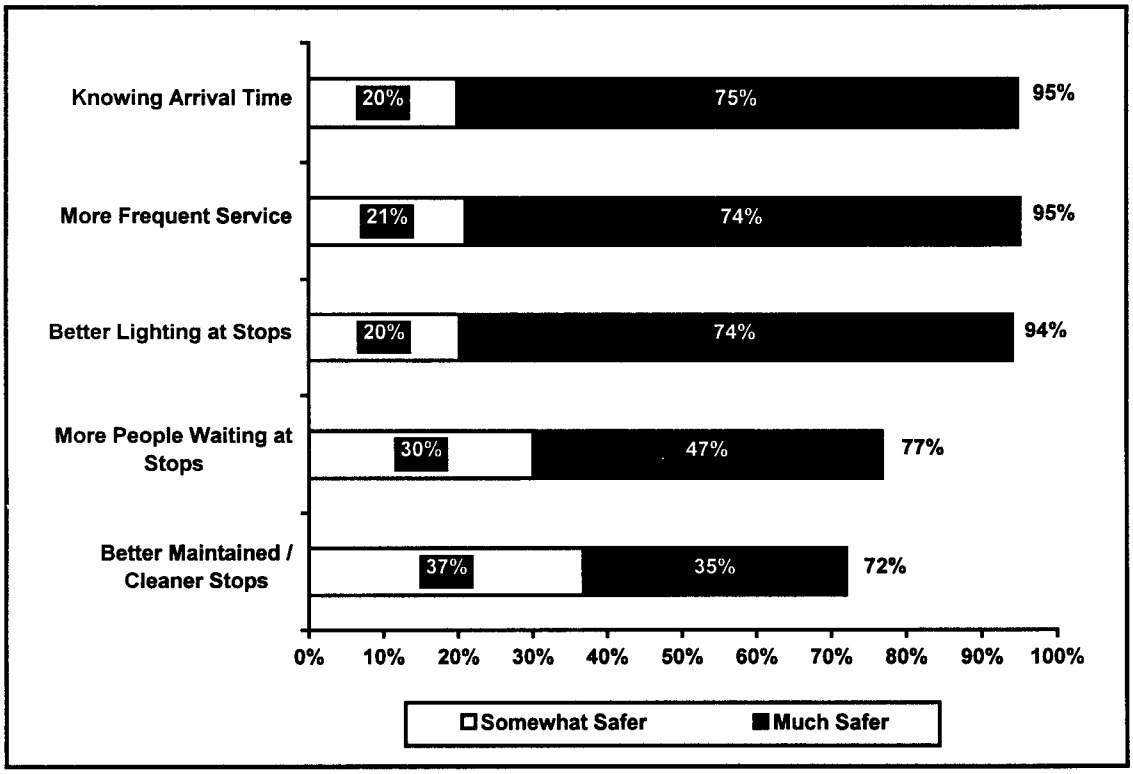
Concerns about personal safety and security were raised throughout the focus group interviews. Moreover, as the previous analysis shows, personal safety and security is an important dimension influencing customer loyalty. Questions were included to identify specific strategies that could be used to improve riders' perceptions of personal safety and security while waiting for and while riding the bus or train. Respondents were asked to indicate how much safer specific aspects of service delivery and design as well as other factors would make them feel. Responses were recorded on a three-point scale that included "no affect at all," "somewhat safer," and "much safer."

Safety While Waiting

Bus Travel

- Service delivery factors – knowing when the bus will arrive and frequent service – have equal influence on bus riders' perception of safety while waiting as a design factor – better lighting at stops.
    - Women are more likely than men to say they would feel "much safer" if there was better lighting at the stops and if they knew what time the next bus arrives.

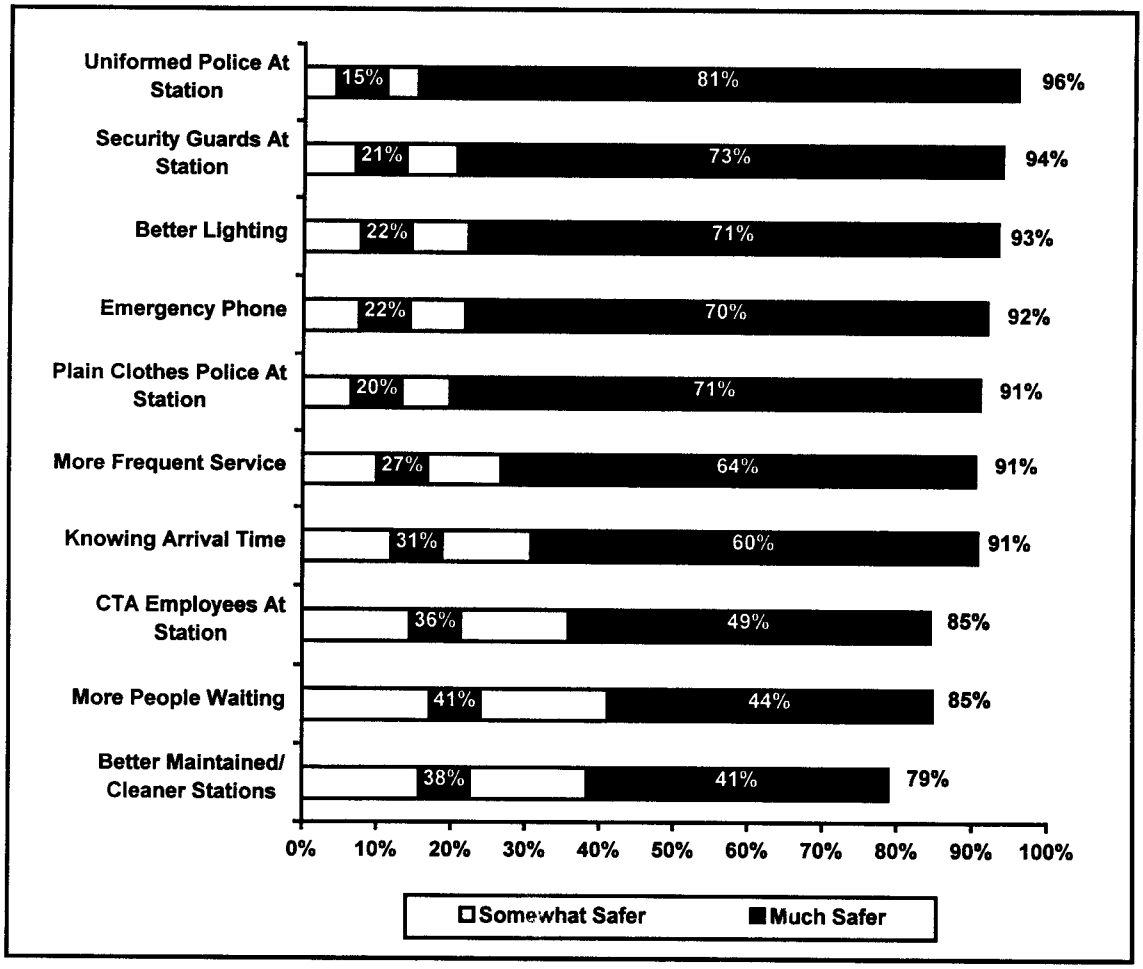
FIGURE 31
FACTORS THAT WOULD INFLUENCE PERCEPTIONS OF SAFETY AND SECURITY WHILE WAITING FOR THE BUS



Train Travel

- All factors have an influence on train riders' perceptions of safety and security while waiting at the stations. The presence of uniformed police and/or security guards are likely to have the greatest impact, suggesting that the visibility of a uniform has a greater impact than plain clothes. Moreover, the presence of uniformed police will have a greater impact than the presence of uniformed security guards.
  - Men and women agree equally that the presence of uniformed police and/or security guards would make them feel safer. However, women also are more likely than men to say that the presence of plain clothes police would make them feel much safer.
- Better lighting and the availability of an emergency phone are important design features that would enhance riders' perceptions of safety while waiting for the train.
  - Women are more likely than men to say the availability of an emergency phone would make them feel much safer.

FIGURE 32
FACTORS THAT WOULD INFLUENCE PERCEPTIONS OF SAFETY AND SECURITY WHILE WAITING FOR THE TRAIN

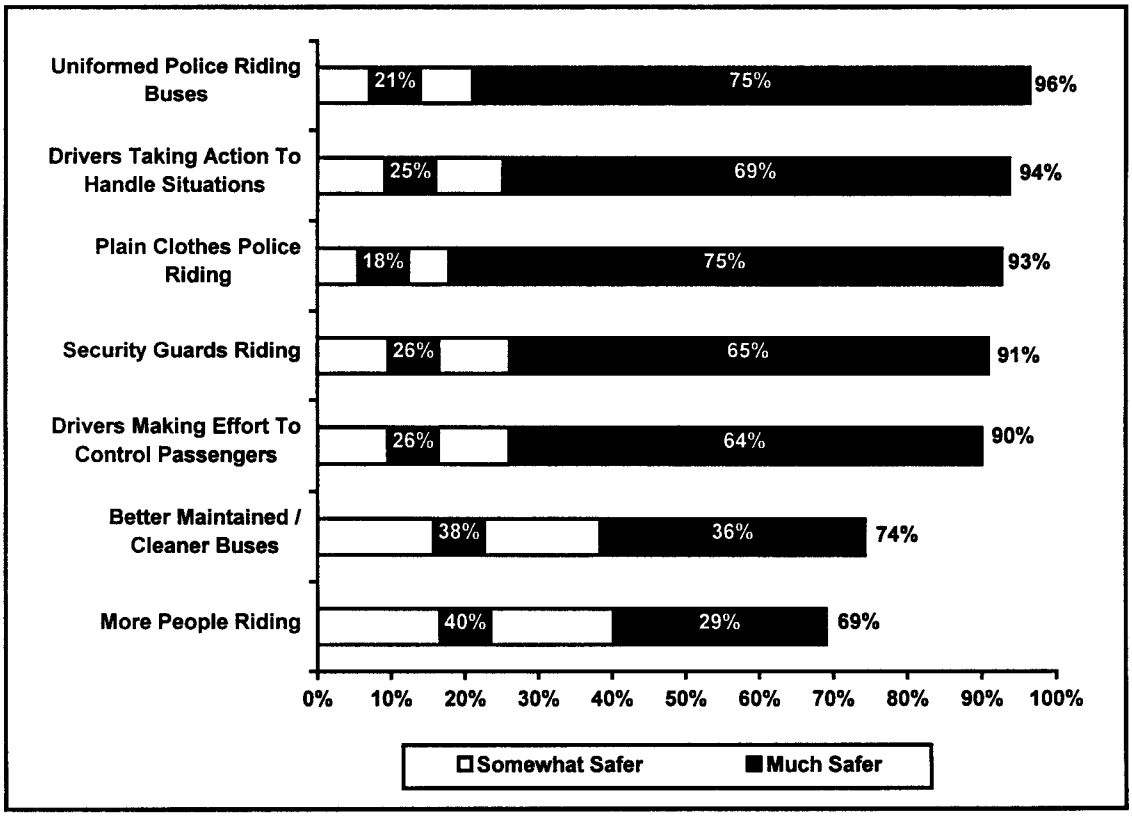


Safety While Riding

Bus Travel

- The presence of police – uniformed and/or plain clothes – on the buses would have the most impact on bus riders' perceptions of safety and security while riding the bus.
  - However, the presence of security guards on the bus and the drivers' ability to take action to handle difficult situations and/or control unruly passengers also is likely to have a significant influence on bus riders' perceptions of safety and security while riding the bus.
  - Improvements to any of these factors affects men's and women's perceptions of safety and security equally.

FIGURE 33
FACTORS THAT WOULD INFLUENCE PERCEPTIONS OF SAFETY AND SECURITY WHILE RIDING THE BUS

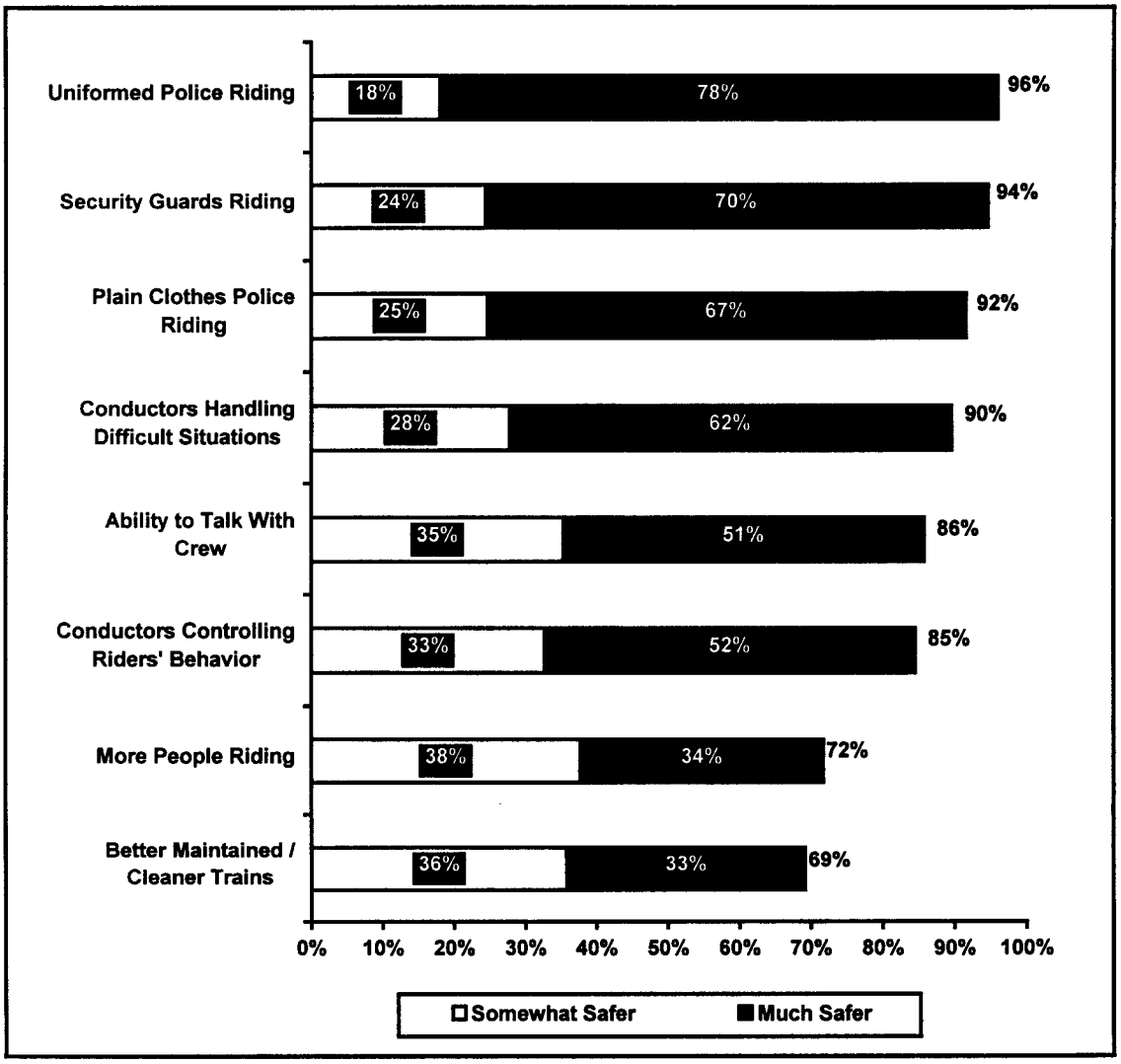


Train Travel

- As with waiting for the train, it is the presence of uniformed police or security guards that would have the greatest impact on bus riders' perceptions of safety and security while riding the train. Moreover, the presence of police would have a greater affect than security guards.

- As with riding the bus, the conductor's ability to handle difficult situations and/or control the behavior of rowdy passengers also is likely to have a positive influence on perceptions of personal safety and security while riding the train.

FIGURE 34
FACTORS THAT WOULD INFLUENCE PERCEPTIONS OF SAFETY AND SECURITY WHILE RIDING THE TRAIN



Chapter

4

Conclusions and Recommendations

Target Markets

- CTA should focus its primary efforts on the commuter market.
  - Three out of four (75%) riders typically use the CTA to travel to and from work or school. Moreover, commuters are three times as likely as non-commuters to be frequent riders – average 4.0 days per week.
  - Loyalty is lower among commuters than among non-commuters. Seventy-two percent (72%) of commuters are "highly vulnerable" or "vulnerable" riders compared with 63 percent of non-commuters.
  - Ridership retention is particularly important among commuters as loss of share in this market will have a significant impact on ridership figures.
  - CTA should vigorously attempt to win back commuters lost in recent years, particularly in relation to peak-hour capacity that may still be available, thereby incurring no increase in costs.
  - This is not to minimize efforts to encourage non-commuter travel. There is still significant payoff to CTA in promoting increases in non-commuter travel since excess capacity during off-peak hours exists and increases in operating costs to target this market will be minimal.
- CTA should focus its efforts equally on choice and transit-dependent riders.
  - CTA ridership is nearly equally divided between "choice" and "dependent" riders. "Choice" riders in particular represent a significant opportunity for increased ridership as they have the potential to increase, on a discretionary basis, both work and non-work travel by transit.
  - Transit-dependent riders have the lowest customer loyalty index and should be considered vulnerable riders. That is, should an alternate mode become available, they are highly likely to stop riding the CTA. This segment of riders may represent a significant proportion of CTA's ridership attrition.
  - While choice riders are more likely than transit-dependent riders to say they are "very likely to continue riding," they are only somewhat more likely to say they are "very satisfied." As the literature on customer satisfaction suggests, only a completely satisfied customer should be considered a secure customer.

Service Quality

Bus

- CTA should focus its efforts on improving the perceived value of its services by improving several aspects of service delivery. Notably, efforts should focus on:
  - Improving on-time performance,
  - Knowing what time next bus arrives,
  - Time between buses,
  - Wait time when transferring, and
  - Travel time by bus.
- These factors are highly related and suggest several possible strategies for improvement.
  - Riders say they want the buses to be on time and/or they want to know what time the next bus arrives. Several strategies can be employed to improve service in this area. Posting accurate, up-to-date schedules at all stops will help riders to better predict what time the next bus arrives. Moreover, this may decrease the impact of increased headways. Insuring that the bus arrives at the stop at the posted time is important. Research at other systems suggests that while it is all right for the bus to arrive at the stop up to several minutes after the posted time, it should **never** be early.
    - Drivers also can be used to increase the perception of on-time performance. Clear and timely announcements of stops and communication with the riders in the event of delays and/or problems can suggest to riders that the driver is following a set schedule.
  - Particular attention should be paid to scheduling buses, notably during peak commute hours, to insure connections with other buses and trains. Drivers should be instructed to call ahead to other buses to notify them of connecting buses where such a strategy will not negatively impact on-time performance – for example, holding a bus more than a minute if it is at the stop at the posted time.
  - Schedules should be set and maintained to eliminate the problems inherent in bunching – missed connections, crowded buses, and a perception that the buses are not running according to schedule. CTA's proposed AVL equipment also would contribute to greater schedule adherance.
  - While understandably a major capital investment, strategies to improve travel time by bus through the use of transit only lanes, priority signals, etc. should be considered in CTA's long-term planning efforts.

- Improvements in these areas should be made while maintaining the current cost of a one-way ride.
    - Consideration also should be given to increasing value by examining current transfer policies. Allowing riders to use a transfer for a round trip within a specified time period may serve to increase the perceived value of service.
    - Also, changing the pricing of the monthly pass, perhaps through further discounting, will lead to increased value, notably among frequent riders. Alternatively, different types of passes (e.g., daily or weekly) also represent opportunities to create a greater value perception through a pass program. These types of passes will become easier to implement and use as CTA introduces automatic fare collection.

Rail

- Like bus travel, CTA's target improvement opportunities in rail rest primarily in the areas of improving value through improved service delivery, personal safety, and some possible fare restructuring. The most important areas on which to focus improvement efforts are:
    - Knowing what time next train arrives,
    - Wait time when transferring, and
    - Time between trains.
- As with bus, these factors are highly related and suggest several possible strategies. These strategies are similar to those proposed for bus.
    - Accurate schedules should be posted at all stations. As technology improves, consideration should be given to real-time postings of time that reflect the actual time the next train will arrive at the station. Simply knowing what time the next train arrives will enable riders to better schedule trips to minimize transfer time – for example from train to bus or from bus to train. Also, knowing what time the next train arrives may reinforce the perception that trains run frequently.
    - With the posting of schedules, it is critical that the trains run according to the schedules. Posting schedules establishes the expectation that the trains will arrive at the station according to that schedule. Holding back trains or otherwise altering schedules on a daily basis will have a significant impact on satisfaction.
    - Other strategies that may serve to minimize riders' concerns with service delivery would include announcements at stations that notify riders when unavoidable delays in the system occur. Reasons for the delay as well as solutions can be provided.
- Care should be taken in terms of planning for service delivery to maintaining or decreasing the time between trains. This is particularly important during peak commute hours. Again, coordinating the scheduling trains and buses to minimize wait time when transferring also should be examined during peak commute hours.

- Focus also should be on improving and/or maintaining personal safety while waiting for and/or riding the trains both from crime and as it relates to the behavior of others. Strategies to be considered include:

  - Increasing the presence of uniformed police and/or security guards both in the stations and on trains.

  - Providing additional driver training on how to handle difficult situations appropriately and to deal with rowdy or otherwise problematic passengers.

  - Improving lighting in the stations and adding emergency phones. Research at other systems suggests that lighting is often adequate and emergency phones are available. Rather ongoing maintenance – for example, repairing broken lights within a day – of the lighting and emergency phones to insure they are in working order is what is required.

- Finally, as with bus travel, improvements in these areas should be made while maintaining the current cost of a one-way ride. The same strategies for increasing the value proposition through a revised transfer policy and pass programs also are appropriate on the rail side.

Appendix

Complete Quadrants

Bus

- **Priority 1 – Eliminate Critical Weaknesses (listed in order of importance)**
  - **1.1)** On-time performance
  - **1.2)** Time between buses
  - **1.3)** Knowing what time bus arrives
  - **1.4)** Wait time when transferring
  - **1.5)** Value of service for fare paid
  - **1.6)** Cost of one-way ride
  - **1.7)** Cleanliness of bus interior
  - **1.8)** Availability of information at stops
  - **1.9)** Cost of a transfer
  - **1.10)** Travel time by bus
  - **1.11)** Comfortable temperature on bus

- **Priority 2 – Maintain Strengths**
  - **2.1)** Safe bus operation
  - **2.2)** Safety from crime while riding and at stops
  - **2.3)** Personal safety on buses and at stops related to behavior of others
  - **2.4)** Visibility of route names / numbers on outside of buses
  - **2.5)** Availability of stop where rider lives
  - **2.6)** Drivers' knowledge of systems, routes, and schedules
  - **2.7)** Ease of making transfers / connections
  - **2.8)** Courtesy of drivers
  - **2.9)** Ease of getting passes / tokens
  - **2.10)** Availability of hand rails / grab bars
  - **2.11)** Availability of stop near work
  - **2.12)** Ease of getting on / off buses
  - **2.13)** Ease of getting phone information

- **Priority 3 – Pursue Moderate Opportunities**
  - **3.1)** Availability of shelters at stops
  - **3.2)** Crowding on bus
  - **3.3)** No graffiti / window etching on buses / shelters
  - **3.4)** Clear / timely stop announcements
  - **3.5)** Availability of printed schedules for all routes

3.6) Availability of seats on bus
3.7) Cost of monthly pass
3.8) Driver explains reasons for delays or other problems
3.9) Smoothness of ride
3.10) Cleanliness of bus exterior
3.11) Availability of seats at stops / shelters

- **Priority 4 – Limited Opportunities**
  4.1) Ease of paying fares
  4.2) Cleanliness of stops
  4.3) Professional appearance of driver
  4.4) Comfort of bus seats

Rail

- **Priority 1 – Eliminate Critical Weaknesses**
  1.1) On-time performance
  1.2) Personal safety on train
  1.3) Time between trains
  1.4) Personal safety at stations
  1.5) Wait time when transferring
  1.6) Cleanliness of train interior
  1.7) Courtesy / helpfulness of station agents
  1.8) Conductor explains reasons for delays
  1.9) Knowing what time train arrives
  1.10) Cost of one-way ride
  1.11) Availability of information at stations
  1.12) Clear / timely stop announcements

- **Priority 2 – Maintain Strengths**
  2.1) Safe / competent train operation
  2.2) Safety from crime while riding and at stations
  2.3) Availability of stations near where rider lives and works
  2.4) Names of stations clearly visible from inside trains
  2.5) Ease of making connections
  2.6) Travel time by train
  2.7) Conductor's knowledge of system
  2.8) Value of service for fare paid
  2.9) Visibility of route names / colors on outside of train
  2.10) Ease of getting on / off train
  2.11) Comfortable temperature on train
  2.12) Ease of paying fare

2.13) Availability of handrails / grab bars

- **Priority 3 – Pursue Moderate Opportunities**
  - **3.1)** Cleanliness of train stations
  - **3.2)** Availability of printed schedules
  - **3.3)** Cost of a transfer
  - **3.4)** Crowding on the train
  - **3.5)** Availability of seats on train
  - **3.6)** Smoothness of train ride
  - **3.7)** Trains / stations clean of graffiti
  - **3.8)** Cost of monthly pass
  - **3.9)** Comfort of train seats
  - **3.10)** Availability of seats / benches at stations
  - **3.11)** Availability of parking at stations

- **Priority 4 – Limited Opportunities**
  - **4.1)** Ease of getting passes / tokens
  - **4.2)** Ease of making transfers
  - **4.3)** Courtesy of train conductor
  - **4.4)** Ease of getting information by phone
  - **4.5)** Professional appearance of conductor
  - **4.6)** Cleanliness of train exterior

Questionnaire

SCR1 Hello, I'm conducting a survey on public transportation for the CTA.

SCR1A For this survey, we would like to speak with a person in your household who is age 16 or over and has ridden the CTA bus and/or rail system at least once in the past week? Would that be you?

1 YES [CONTINUE]
2 NO [ASK TO SPEAK TO SOMEONE ELSE WHO QUALIFIES - REREAD INTRO]
3 NO ONE IN HOUSEHOLD QUALIFIED [SKIP TO THANK1]

SCR2 To verify, is your home zip code [ZIPCODE FROM SAMPLE]?

1 YES [SKIP TO GENDER]
2 NO [SKIPTO SCR3]

SCR3 What is your correct zip code?
[REFER TO ZIPCODE LIST TO MAKE SURE IT IS A QUALIFIED ZIPCODE.]
[CHECK NUMBER. IF CORRECT PRESS ENTER TO CONTINUE.]

_____ ENTER CORRECT ZIPCODE
99999 NOT ON ZIPCODE LIST **[SKIP TO THANK2]**

GENDER [ENTER GENDER OF RESPONDENT.]

1 MALE
2 FEMALE

Q1 How many days did you ride a CTA bus in the past seven days?

___RECORD NUMBER OF DAYS
9 DON'T KNOW / REFUSED

Q2 How many days did you ride a CTA train in the past seven days?

___RECORD NUMBER OF DAYS
9 DON'T KNOW / REFUSED

Q3 When using **the CTA**, would you say you usually. . .
[INTERVIEWER NOTE: METRA and PACE are NOT CTA services.]

1 Ride the bus only,
2 Ride the train only, or
3 Ride the bus and the train?
9 DON'T KNOW / REFUSED **[SKIPTO THANK3]**

Q3A - FLAG - THIS RESPONDENT IS A: (CATI INSERTS MODE FROM LIST)

1 BUS RIDER
2 TRAIN RIDER
3 MIXED MODE - ASSIGNED TO BUS
4 MIXED MODE - ASSIGNED TO TRAIN

Q4 Which of the following statements best describes why you ride the CTA?

1 I ride because I can't or don't know how to drive
2 I ride because I don't have a car available
3 I don't have a car available because I prefer to take the bus or train
4 I have a car available but prefer to take the bus or train for some purposes
9 DON'T KNOW / REFUSED

Q5 To the nearest year, how long have you been riding the CTA bus and rail system?

___ RECORD NUMBER OF YEARS
99 DON'T KNOW / REFUSED

Q6 Thinking about your typical trip – that is, the one you make most often – what is the usual purpose of that trip?

1 TO / FROM WORK
2 TO / FROM SCHOOL
3 SHOPPING
4 VISITING / RECREATION
5 PERSONAL BUSINESS
6 DOCTOR / DENTIST / MEDICAL APPOINTMENT
7 OTHER [SPECIFY]
9 DON'T KNOW / REFUSED

Q7 What else do you use the CTA for?
[SELECT ALL THAT APPLY. USE ARROW KEYS TO SELECT AND PRESS ENTER.]

TO / FROM WORK
TO / FROM SCHOOL
SHOPPING
VISITING / RECREATION
PERSONAL BUSINESS
DOCTOR / DENTIST / MEDICAL APPOINTMENT
OTHER [SPECIFY]
NONE
DON'T KNOW / REFUSED/ NO MORE APPLY

Q8 Still thinking about your typical trip, is your usual starting point for that trip in. . .

1 Downtown Chicago – The Loop
2 Downtown Chicago – Michigan Avenue
3 North Chicago
4 Northwest Chicago
5 West Chicago
6 Southwest Chicago
7 South or Southeast Chicago
8 or a suburb (SPECIFY)_____
9 DON'T KNOW / REFUSED

Q9 Is your usual destination for that trip in. . .

1 Downtown Chicago – The Loop
2 Downtown Chicago – Michigan Avenue
3 North Chicago
4 Northwest Chicago
5 West Chicago
6 Southwest Chicago
7 South or Southeast Chicago
8 or a suburb (SPECIFY)_____
9 DON'T KNOW / REFUSED

Q10 On your typical trip, do you. . .

1 Only ride the bus,
2 Ride the bus then transfer to another bus,
3 Only ride the CTA train (the "El"),
4 Ride the 'El' train and transfer to another train,
5 Ride the bus then transfer to the 'El' or vice versa,
6 Ride PACE and then transfer to a CTA bus or train, or
7 Ride Metra and then transfer to a CTA bus or train?
8 OTHER [SPECIFY]
9 DON'T KNOW / REFUSED

Q11 For this trip, how do you usually get to the bus stop or train station where you begin your trip?

1 WALK TO NEAREST BUS STOP / TRAIN STATION
2 DROPPED OFF AT BUS STOP / PICK-UP LOCATION
3 DRIVE AND PARK AT PARK-AND-RIDE
4 OTHER [SPECIFY]
9 DON'T KNOW / REFUSED

Q12 How far is it from where you start this trip to this bus stop or train station?

_____ ENTER NUMBER OF BLOCKS OR MILES
99 DK/REF **[SKIP TO Q14]**

Q13 RECORD IF BLOCKS OR MILES

1 BLOCKS
2 MILES

Q14 **[IF Q10 EQ 1 OR 3, SKIPTO Q16]** Still thinking about your typical trip, how many transfers do you usually make one way?

___RECORD NUMBER OF TRANSFERS
9 DON'T KNOW / REFUSED

Q15 [IF Q14 GT 0] How long do you usually have to wait between transfers?

___RECORD MINUTES
99 DK /REF

Q16 How do you usually pay your fare?

1 CASH
2 TOKENS
3 MONTHLY PASS
4 OTHER [SPECIFY]
9 DK / REF

Q17 Do you usually ride during peak times, that is 6-9 a.m. and 3-6 p.m., or in off-peak hours?

1 PEAK HOURS
2 OFF-PEAK HOURS
3 COMBINATION PEAK AND OFF-PEAK
9 DK / REF

Q18 **[CHOICE RIDERS ONLY – Q4 = 3 OR 4]** Following are some reasons people have identified for why they ride the [BUS / TRAIN]. Please tell me whether each is a major factor, a minor factor, or not a factor at all for you in deciding to ride the [BUS / TRAIN].

		NOT A FACTOR	MINOR FACTOR	MAJOR FACTOR
Q18.1	Parking at my destination is too expensive.	1	2	3
Q18.2	There is not enough parking at my destination or it is hard to find.	1	2	3
Q18.3	I don't like to drive in traffic.	1	2	3
Q18.4	Riding the [BUS / TRAIN] is faster than driving.	1	2	3
Q18.5	Riding the [BUS / TRAIN] is better for the environment	1	2	3
Q18.6	Riding the [BUS / TRAIN] is less stressful than driving.	1	2	3
Q18.7	Riding the [BUS / TRAIN] is cheaper than driving.	1	2	3
Q18.8	I don't have a car available for this trip or I don't drive.	1	2	3
Q18.9	The [BUS / TRAIN] takes me straight to my destination	1	2	3
Q18.10	I ride the [BUS / TRAIN] to avoid traffic congestion.	1	2	3

Q19.1 Now I am going to read some ways that people might describe the CTA. Using a scale from "1" to "5" where "1" means "strongly disagree" and "5" means "strongly" agree, please tell me how much you agree or disagree with each statement.

		STRONGLY DISAGREE				STRONGLY AGREE
Q19.1	Provides quality service at a fair and reasonable price	1	2	3	4	5
Q19.2	Agency doesn't care about its customers because it is a monopoly	1	2	3	4	5
Q19.3	Has efficient and cost-conscious company management	1	2	3	4	5
Q19.4	Tries to keep fares as low as possible.	1	2	3	4	5

Q19.5	Effectively manages a geographically large and complex public transportation system.	1	2	3	4	5
Q19.6	Considers the needs of its riders when making decisions.	1	2	3	4	5
Q19.7	Provides reliable public transportation services.1	2	3	4	5	
Q19.8	Has a fleet of buses and trains that are clean and well-maintained.	1	2	3	4	5
Q19.9	Does a good job of telling riders about route and schedule changes.	1	2	3	4	5
Q19.10	Provides a consistent level of service to all the areas it serves.	1	2	3	4	5
Q19.11	Is easy to use.	1	2	3	4	5
Q19.12	Has improved service over the past year.	1	2	3	4	5
Q19.13	Employees care about providing quality service.	1	2	3	4	5

Q20 Thinking about your typical [BUS / TRAIN] trip, how important <u>to you personally</u> are each of the following factors in deciding whether to ride the [BUS / TRAIN]? Use a 5-point scale where "1" means "not at all important" and "5" means "extremely important."

Bus [IF FLAG EQ 1 OR 3]

		NOT AT ALL IMPORTANT				**EXTREMELY IMPORTANT**
	How important is . . .					
Q20.1	**[ALL]** Safety from crime where I get on and off the bus.	1	2	3	4	5
Q20.2	**[ALL]** Knowing what time the next bus arrives. 1	2	3	4	5	
Q20.3	**[GRP1]** Cleanliness of the area where I get on or off the bus.	1	2	3	4	5
Q20.4	**[GRP2]** Personal safety at the bus stop related to the behavior of others.	1	2	3	4	5
Q20.5	**[GRP1]** Availability of shelters at the bus stop.	1	2	3	4	5
Q20.6	**[GRP2]** Availability of route and schedule information at the bus stop.	1	2	3	4	5
Q20.7	**[GRP1]** Availability of seats or benches at the bus stop.	1	2	3	4	5
Q20.8	**[GRP2]** Ease of paying fare on the bus.	1	2	3	4	5
Q20.9	**[ALL]** On-time performance of buses.	1	2	3	4	5
Q20.10	**[GRP1]** Amount of time between buses.	1	2	3	4	5
Q20.11	**[ALL]** Value of the service received for the bus fare paid.	1	2	3	4	5
Q20.12	**[GRP2]** Travel time by bus compared with other travel modes.	1	2	3	4	5
Q20.13	**[GRP1]** Personal safety on the bus related to the behavior of others.	1	2	3	4	5
Q20.14	**[ALL]** Safety from crime while riding the bus.	1	2	3	4	5
Q20.15	**[ALL]** Courtesy of bus driver.	1	2	3	4	5
Q20.16	**[ALL]** Bus driver's knowledge of the system, routes, and schedules.	1	2	3	4	5

Q20.17	**[GRP2]** Clear and timely announcements of the next stop.	1	2	3	4	5
Q20.18	**[ALL]** The driver operates the bus in a safe and competent manner.	1	2	3	4	5
Q20.19	**[GRP1]** Professional appearance of driver.	1	2	3	4	5
Q20.20	**[GRP2]** Visibility of route names and numbers on the outside of the bus.	1	2	3	4	5
Q20.21	**[GRP1]** Cleanliness of bus exterior.	1	2	3	4	5
Q20.22	**[GRP1]** Cleanliness of bus interior.	1	2	3	4	5
Q20.23	**[GRP2]** Availability of seats on the bus.	1	2	3	4	5
Q20.24	**[GRP2]** Comfortable temperature on the bus (that is, not too hot or too cold).	1	2	3	4	5
Q20.25	**[GRP1]** Smoothness of bus ride.	1	2	3	4	5
Q20.26	**[ALL]** Crowding on the bus.	1	2	3	4	5
Q20.27	**[GRP2]** Ease of getting on and off the bus.	1	2	3	4	5
Q20.28	**[GRP1]** Comfort of bus seats.	1	2	3	4	5
Q20.29	**[GRP2]** Availability of handrails and grab bars on the bus.	1	2	3	4	5
Q20.30	**[ALL]** Bus shelters and buses are clean of graffiti or window etchings.	1	2	3	4	5
Q20.31	**[GRP1]** Availability of a bus stop where I live.	1	2	3	4	5
Q20.32	**[GRP1]** Availability of a bus stop where I work.	1	2	3	4	5
Q20.33	**[ALL]** Ease of making connections with other buses and trains.	1	2	3	4	5
Q20.34	**[GRP2]** Availability of printed schedules for all bus routes.	1	2	3	4	5
Q20.35	**[GRP2]** Driver explains reasons for delays or other problems.	1	2	3	4	5

Train [IF FLAG EQ 2 OR 4]

		NOT AT ALL IMPORTANT				**EXTREMELY IMPORTANT**
Q20a.1	**[ALL]** Safety from crime where I get on and off the train.	1	2	3	4	5
Q20a.2	**[GRP2]** Cleanliness of train stations.	1	2	3	4	5
Q20a.3	**[GRP2]** Knowing what time the next train arrives.	1	2	3	4	5
Q20a.4	**[GRP1]** Personal safety at train stations related to the behavior of other people.	1	2	3	4	5
Q20a.5	**[ALL]** Availability of route and schedule information at train stations.	1	2	3	4	5
Q20a.6	**[GRP1]** Ease of paying fare at the train stations.	1	2	3	4	5
Q20a.7	**[ALL]** Courtesy and helpfulness of station agents.	1	2	3	4	5
Q20a.8	**[ALL]** On-time performance of trains.	1	2	3	4	5
Q20a.9	**[GRP2]** Amount of time between trains.	1	2	3	4	5
Q20a.10	**[ALL]** Value of the service received for the train fare paid.	1	2	3	4	5

Q20a.11	**[GRP1]** Travel time by train compared with other travel modes.	1	2	3	4	5
Q20a.12	**[GRP1]** Personal safety on the train related to the behavior of other passengers.	1	2	3	4	5
Q20a.13	**[ALL]** Safety from crime while riding the train.	1	2	3	4	5
Q20a.14	**[ALL]** Courtesy of the train conductor.	1	2	3	4	5
Q20a.15	**[ALL]** Clear and timely announcements of the next stop.	1	2	3	4	5
Q20a.16	**[GRP2]** The train operator operates the train in a safe and competent manner.	1	2	3	4	5
Q20a.17	**[GRP2]** Professional appearance of the conductor.	1	2	3	4	5
Q20a.18	**[GRP2]** Cleanliness of train exterior.	1	2	3	4	5
Q20a.19	**[GRP2]** Cleanliness of train interior.	1	2	3	4	5
Q20a.20	**[GRP1]** Availability of seats on the train.	1	2	3	4	5
Q20a.21	**[GRP1]** Comfortable temperature on the train (that is, not too hot or too cold).	1	2	3	4	5
Q20a.22	**[GRP2]** Smoothness of train ride.	1	2	3	4	5
Q20a.23	**[GRP1]** Ease of getting on and off the train.	1	2	3	4	5
Q20a.24	**[GRP2]** Comfort of the train seats.	1	2	3	4	5
Q20a.25	**[ALL]** Availability of handrails and grab bars on the train.	1	2	3	4	5
Q20a.26	**[GRP1]** Visibility of route names and colors on the outside of the train.	1	2	3	4	5
Q20a.27	**[GRP1]** Names of the train stations are clearly visible from inside the train (as the train pulls into the station).	1	2	3	4	5
Q20a.28	**[ALL]** Trains and stations are clean of graffiti.	1	2	3	4	5
Q20a.29	**[GRP1]** Conductor's knowledge of the system, routes, and schedules.	1	2	3	4	5
Q20a.30	**[GRP2]** Availability of a train station where I live.	1	2	3	4	5
Q20a.31	**[GRP2]** Availability of a train station where I work.	1	2	3	4	5
Q20a.32	**[ALL]** Ease of making connections with other trains and buses.	1	2	3	4	5
Q20a.33	**[GRP1]** Availability of printed schedules for all trains.	1	2	3	4	5
Q20a.34	**[ALL]** Conductor explains reasons for delays or other problems.	1	2	3	4	5
Q20a.35	**[ALL]** Crowding on the train.	1	2	3	4	5
Q20a.36	**[GRP1]** Availability of parking at my station.	1	2	3	4	5
Q20a.37	**[GRP2]** Availability of seats or benches at my station.	1	2	3	4	5

All

Q20.aa	Ease of getting information by phone.	1	2	3	4	5
Q20.bb	Easy of getting passes / tokens.	1	2	3	4	5

Q20.cc	Cost of a one-way ride on the bus or train.	1	2	3	4	5
Q20.dd	Cost of monthly pass.	1	2	3	4	5
Q20.ee	Cost of a transfer.	1	2	3	4	5
Q20.ff	Ease of making transfers to another bus or train.	1	2	3	4	5
Q20.gg	Wait time when making transfers to another bus or train.	1	2	3	4	5

Q21 Now I am going to read you the same list of factors. Please rate how good a job you think CTA is doing, using a 5-point scale where "1" means "a poor job" and "5" means "an excellent job."

		POOR JOB				EXCELLENT JOB
Bus [IF FLAG EQ 1 OR 3]						
Q21.1	**[ALL]** Safety from crime where I get on and off the bus.	1	2	3	4	5
Q21.2	**[ALL]** Knowing what time the next bus arrives. 1	2	3	4	5	
Q21.3	**[GRP1]** Cleanliness of the area where I get on or off the bus.	1	2	3	4	5
Q21.4	**[GRP2]** Personal safety at the bus stop related to the behavior of others.	1	2	3	4	5
Q21.5	**[GRP1]** Availability of shelters at the bus stop.	1	2	3	4	5
Q21.6	**[GRP2]** Availability of route and schedule information at the bus stop.	1	2	3	4	5
Q21.7	**[GRP1]** Availability of seats or benches at the bus stop.	1	2	3	4	5
Q21.8	**[GRP2]** Ease of paying fare on the bus.	1	2	3	4	5
Q21.9	**[ALL]** On-time performance of buses.	1	2	3	4	5
Q21.10	**[GRP1]** Amount of time between buses.	1	2	3	4	5
Q21.11	**[ALL]** Value of the service received for the bus fare paid.	1	2	3	4	5
Q21.12	**[GRP2]** Travel time by bus compared with other travel modes.	1	2	3	4	5
Q21.13	**[GRP1]** Personal safety on the bus related to the behavior of others.	1	2	3	4	5
Q21.14	**[ALL]** Safety from crime while riding the bus.	1	2	3	4	5
Q21.15	**[ALL]** Courtesy of bus driver.	1	2	3	4	5
Q21.16	**[ALL]** Bus driver's knowledge of the system, routes, and schedules.	1	2	3	4	5
Q21.17	**[GRP2]** Clear and timely announcements of the next stop.	1	2	3	4	5
Q21.18	**[ALL]** The driver operates the bus in a safe and competent manner.	1	2	3	4	5
Q21.19	**[GRP1]** Professional appearance of driver.	1	2	3	4	5
Q21.20	**[GRP2]** Visibility of route names and numbers on the outside of the bus.	1	2	3	4	5
Q21.21	**[GRP1]** Cleanliness of bus exterior.	1	2	3	4	5

Q21.22	**[GRP1]** Cleanliness of bus interior.	1	2	3	4	5
Q21.23	**[GRP2]** Availability of seats on the bus.	1	2	3	4	5
Q21.24	**[GRP2]** Comfortable temperature on the bus (that is, not too hot or too cold).	1	2	3	4	5
Q21.25	**[GRP1]** Smoothness of bus ride.	1	2	3	4	5
Q21.26	**[ALL]** Crowding on the bus.	1	2	3	4	5
Q21.27	**[GRP2]** Ease of getting on and off the bus.	1	2	3	4	5
Q21.28	**[GRP1]** Comfort of bus seats.	1	2	3	4	5
Q21.29	**[GRP2]** Availability of handrails and grab bars on the bus.	1	2	3	4	5
Q21.30	**[ALL]** Bus shelters and buses are clean of graffiti or window etchings.	1	2	3	4	5
Q21.31	**[GRP1]** Availability of a bus stop where I live.	1	2	3	4	5
Q21.32	**[GRP1]** Availability of a bus stop where I work.	1	2	3	4	5
Q21.33	**[ALL]** Ease of making connections with other buses and trains.	1	2	3	4	5
Q21.34	**[GRP2]** Availability of printed schedules for all bus routes.	1	2	3	4	5
Q21.35	**[GRP2]** Driver explains reasons for delays or other problems.	1	2	3	4	5

Train [IF FLAG EQ 2 OR 4]

		POOR JOB				**EXCELLENT JOB**
Q21a.1	**[ALL]** Safety from crime where I get on and off the train.	1	2	3	4	5
Q21a.2	**[GRP2]** Cleanliness of train stations.	1	2	3	4	5
Q21a.3	**[GRP2]** Knowing what time the next train arrives.	1	2	3	4	5
Q21a.4	**[GRP1]** Personal safety at train stations related to the behavior of other people.	1	2	3	4	5
Q21a.5	**[ALL]** Availability of route and schedule information at train stations.	1	2	3	4	5
Q21a.6	**[GRP1]** Ease of paying fare at the train stations.	1	2	3	4	5
Q21a.7	**[ALL]** Courtesy and helpfulness of station agents.	1	2	3	4	5
Q21a.8	**[ALL]** On-time performance of trains.	1	2	3	4	5
Q21a.9	**[GRP2]** Amount of time between trains.	1	2	3	4	5
Q21a.10	**[ALL]** Value of the service received for the train fare paid.	1	2	3	4	5
Q21a.11	**[GRP1]** Travel time by train compared with other travel modes.	1	2	3	4	5
Q21a.12	**[GRP1]** Personal safety on the train related to the behavior of other passengers.	1	2	3	4	5
Q21a.13	**[ALL]** Safety from crime while riding the train.	1	2	3	4	5
Q21a.14	**[ALL]** Courtesy of the train conductor.	1	2	3	4	5

Q21a.15	**[ALL]** Clear and timely announcements of the next stop.	1	2	3	4	5
Q21a.16	**[GRP2]** The train operator operates the train in a safe and competent manner.	1	2	3	4	5
Q21a.17	**[GRP2]** Professional appearance of the conductor.	1	2	3	4	5
Q21a.18	**[GRP2]** Cleanliness of train exterior.	1	2	3	4	5
Q21a.19	**[GRP2]** Cleanliness of train interior.	1	2	3	4	5
Q21a.20	**[GRP1]** Availability of seats on the train.	1	2	3	4	5
Q21a.21	**[GRP1]** Comfortable temperature on the train (that is, not too hot or too cold).	1	2	3	4	5
Q21a.22	**[GRP2]** Smoothness of train ride.	1	2	3	4	5
Q21a.23	**[GRP1]** Ease of getting on and off the train.	1	2	3	4	5
Q21a.24	**[GRP2]** Comfort of the train seats.	1	2	3	4	5
Q21a.25	**[ALL]** Availability of handrails and grab bars on the train.	1	2	3	4	5
Q21a.26	**[GRP1]** Visibility of route names and colors on the outside of the train.	1	2	3	4	5
Q21a.27	**[GRP1]** Names of the train stations are clearly visible from inside the train (as the train pulls into the station).	1	2	3	4	5
Q21a.28	**[ALL]** Trains and stations are clean of graffiti.	1	2	3	4	5
Q21a.29	**[GRP1]** Conductor's knowledge of the system, routes, and schedules.	1	2	3	4	5
Q21a.30	**[GRP2]** Availability of a train station where I live.	1	2	3	4	5
Q21a.31	**[GRP2]** Availability of a train station where I work.	1	2	3	4	5
Q21a.32	**[ALL]** Ease of making connections with other trains and buses.	1	2	3	4	5
Q21a.33	**[GRP1]** Availability of printed schedules for all trains.	1	2	3	4	5
Q21a.34	**[ALL]** Conductor explains reasons for delays or other problems.	1	2	3	4	5
Q21a.35	**[ALL]** Crowding on the train.	1	2	3	4	5
Q21a.36	**[GRP1]** Availability of parking at my station.	1	2	3	4	5
Q21a.37	**[GRP2]** Availability of seats or benches at my station.	1	2	3	4	5

All

Q21.aa	Ease of getting information by phone.	1	2	3	4	5
Q21.bb	Easy of getting passes / tokens.	1	2	3	4	5
Q21.cc	Cost of a one-way ride on the bus or train.	1	2	3	4	5
Q21.dd	Cost of monthly pass.	1	2	3	4	5
Q21.ee	Cost of a transfer.	1	2	3	4	5
Q21.ff	Ease of making transfers to another bus or train.	1	2	3	4	5

Q21.gg	Wait time when making transfers to another bus or train.	1	2	3	4	5

Q22 [COMPLEX SKIP PATTERN RELATED TO SAFETY QUESTIONS] You said that safety while waiting for the [BUS / TRAIN] is important to you and that CTA could improve in this area. As I read each of the following, please tell me whether this would make you feel much safer, somewhat safer, or have no affect at all on your feelings of safety while waiting for the bus or train.

		NO AFFECT AT ALL	SOMEWHAT SAFER	MUCH SAFER
Q22.1	Better lighting at [STOPS / STATIONS].	1	2	3
Q22.2	Better maintained / cleaner [STOPS / STATIONS].	1	2	3
Q22.3	[TRAIN] More uniformed police patrolling stations.	1	2	3
Q22.4	[TRAIN] More plain clothes police patrolling stations.	1	2	3
Q22.5	[TRAIN] Security guards patrolling stations.	1	2	3
Q22.6	More people waiting at the [STOPS / STATIONS].	1	2	3
Q22.7	[TRAIN] A CTA employee present at the stations.	1	2	3
Q22.8	[TRAIN] Emergency phone or panic button at stations.	1	2	3
Q22.9	More frequent service.	1	2	3
Q22.10	Knowing when the [BUS / TRAIN] will arrive.	1	2	3

Q23 [COMPLEX SKIP PATTERN RELATED TO SAFETY QUESTIONS] You said that safety while riding the [BUS / TRAIN] is important to you and that CTA could improve in this area. As I read each of the following, please tell me whether this would make you feel much safer, somewhat safer, or have no affect at all on your feelings of safety while riding the bus or train.

		NO AFFECT AT ALL	SOMEWHAT SAFER	MUCH SAFER
Q23.1	Better maintained / cleaner [BUSES / TRAINS]	1	2	3
Q23.2	More uniformed police riding [BUSES / TRAINS]	1	2	3
Q23.3	More plain clothes police riding [BUSES / TRAINS]	1	2	3
Q23.4	Security guards riding the [BUSES / TRAINS]	1	2	3
Q23.5	More people riding [BUSES / TRAINS]	1	2	3
Q23.6	[DRIVERS / CONDUCTORS] making a bigger effort to control the behavior of other people on the [BUSES / TRAINS]	1	2	3
Q23.7	[DRIVERS / CONDUCTORS] taking appropriate actions to handle difficult situations.	1	2	3
Q23.8	**[TRAIN ONLY]** Ability to communicate with train crew.	1	2	3

Q24 **[IF FLAG EQ 1 OR 3]** Overall, how satisfied are you with riding CTA buses? Would you say you are. . .

1 Very satisfied
2 Somewhat satisfied
3 Neither satisfied nor dissatisfied
4 Somewhat dissatisfied
5 Very dissatisfied
9 DON'T KNOW / REFUSED

Q25 **[IF FLAG EQ 1 OR 3]** How likely are you to continue to use CTA buses in the future [IF TRANSIT DEPENDENT ADD: if another mode of transportation is available]? Would you say you. . .

1 Definitely will
2 Probably will
3 Might or might not
4 Probably will not
5 Definitely will not
9 DON'T KNOW / REFUSED

Q26 **[IF FLAG EQ 1 OR 3]** How likely would you be to recommend CTA buses to a family member, friend, or coworker? Would you say you. . .

1 Definitely would recommend it
2 Probably would recommend it
3 Might or might not recommend it
4 Probably would not recommend it
5 Definitely would not recommend it
9 DON'T KNOW / REFUSED

Q27 [IF FLAG EQ 2 OR 4] Overall, how satisfied are you with riding CTA trains? Would you say you are. . .

1 Very satisfied
2 Somewhat satisfied
3 Neither satisfied nor dissatisfied
4 Somewhat dissatisfied
5 Very dissatisfied
9 DON'T KNOW / REFUSED

Q28 **[IF FLAG EQ 2 OR 4]** How likely are you to continue to use CTA trains in the future [IF TRANSIT DEPENDENT ADD: if another mode of transportation is available]? Would you say you. . .

1 Definitely will
2 Probably will
3 Might or might not
4 Probably will not
5 Definitely will not
9 DON'T KNOW / REFUSED

Q29 **[IF FLAG EQ 2 OR 4]** How likely would you be to recommend CTA trains to a family member, friend, or coworker? Would you say you. . .

1 Definitely would recommend it
2 Probably would recommend it
3 Might or might not recommend it
4 Probably would not recommend it
5 Definitely would not recommend it
9 DON'T KNOW / REFUSED

Q30 If you could make a recommendation to CTA, what **one** improvement would you most like to see? **[open-ended question]**

DINTRO Finally, I have some background questions which will be used to help us group your answers with those of people like yourself.

D1 How long have you lived in the Chicago area?

___ RECORD NUMBER OF YEARS
99 DON'T KNOW / REFUSED

D2 How many automobiles in working condition do **you** have available for your use?

_ ENTER NUMBER
8 8 OR MORE
9 DK / REF

D3 What is your age?

__ AGE
99 REFUSED

D4 [IF D3 EQ 99] Would that be . . .

1 16-17,
2 18-24,
3 25-34,
4 35-44,
5 45-54,
6 55-64, or
7 65 and Older?
9 REFUSED

D5 Are you currently . . .

1 Employed full-time
2 Employed part-time
3 Not employed outside the home
4 A student
5 Retired, or
6 Unemployed ?
7 OTHER (SPECIFY)
9 REFUSED

D6 Is your total annual household income below or above $30,000 per year?

1 UP TO $30,000 PER YEAR
2 ABOVE $30,000 PER YEAR
3 DK – PROBE FOR BEST ESTIMATE
9 REFUSED

D7 [IF D6 EQ 1] Would that be . . .

1 Less than 10,000 per year,
2 $10,000 to 20,000,
3 $20,000 to 30,000?
9 DK / REF

D8 [IF D6 EQ 2] Would that be . . .

1 $30,000 to 40,000,
2 $40,000 to 50,000,
3 $50,000 to 60,000, or
4 Over $60,000?
9 DK / REF

D9 Are you:

1 Hispanic
2 Asian
3 Black / African-American
4 White / Caucasian
5 American Indian
6 OTHER [SPECIFY]
9 DK / REF

D10 For our records, I need to verify your telephone number. Is it ....

1 YES
2 NO
9 REFUSED

D11 **[IF D10 EQ 2]** What is your correct phone number?

_____ ENTER CORRECT PHONE NUMBER
9999999 REFUSED

D12 Those are all the questions we have at this time. We may be conducting additional research in the future. May we call you again if we do?

1 YES
2 NO / DON'T KNOW / REF **[SKIP TO THANK]**

THANK That concludes our survey. Thank you very much for your time and the useful information you have provided us.

INTNUM [RECORD INTERVIEWER NUMBER]

_____ ENTER NUMBER

THANK1 Thank you for your time. We appreciate your cooperation in agreeing to complete this survey. Today we are only interviewing residents who have ridden on a CTA bus or train in the past week.

THANK2 Thank you for your time. We appreciate your cooperation in agreeing to complete this survey. Today we are only interviewing residents in the CTA service area.

THANK3 Thank you for your time. We appreciate your cooperation in agreeing to complete this survey, but we cannot continue without that information.

THANK4 Thank you for your time. We appreciate your cooperation in agreeing to complete this survey, but we have completed our quota of residents in your rider category.

Weighting

Quotas were established before the data collection process to insure that an approximately equal number of interviews were conducted with persons who rode the bus or the train. Individuals who used both modes were randomly assigned to one mode and asked to answer questions for that mode only where applicable. It was understood that by using this approach, a disproportionately high number of train only and mixed mode riders would be interviewed and a correspondingly smaller number of bus only riders interviewed. Weighting was planned to realign these strata such that the responses for each subgroup were proportionate with their actual incidence in the population.

To establish the data for these weights, information on mode was gathered from all households contacted. As a quota filled, data on mode used was kept separately to provide the data needed.

The following table illustrates the number of interviews completed and the number dispositioned as quota full for each mode in each area. Weights for each mode are computed by dividing the number of completes plus the number of quota full by the total sample in each area.

	Bus		Train		Mixed	Total	Bus	Train	Mixed
	Completes	Quota Full	Completes	Quota Full	Completes	Sample	Weight	Weight	Weight
Downtown	3	4	2	0	5	14	0.500	0.143	0.357
North	73	58	94	10	128	363	0.361	0.287	0.353
Northwest	32	15	31	4	54	136	0.346	0.257	0.397
South	57	37	5	2	120	221	0.425	0.032	0.543
Southwest	15	11	6	0	26	58	0.448	0.104	0.448
West	24	19	12	0	17	72	0.597	0.167	0.236
Suburbs	14	5	50	5	39	113	0.168	0.487	0.345
Total	218	149	200	21	389	977			

A random sample is used to insure projectability of the results to the population. While projectable, a random sample does not guarantee a representative sample. Other factors (e.g., the incidence of ESL households or the incidence of two telephone households) may cause a strictly drawn random sample to not completely represent the population on certain demographic or other characteristics. As interviewing proceeded, it became evident that riders whose typical trip originated on Chicago's north side were being disproportionately represented in the sample. Conversely, riders who typical trip originated on Chicago's south or southwest sides were being disproportionately represented. This occurred because of a higher incidence of households with working telephones on Chicago's north side as well as a higher incidence of multiple phone lines per household in this area. On the other hand, there was a higher incidence of non-English speaking households in other area.

In addition to keeping track of households not included as interviews because quotas were full, all nonrider households were dispositioned separately. Moreover, the sample contained the zipcode most likely for that household given its telephone prefix. Therefore, it was possible to determine the actual incidence of rider households in each area and to use this information to determine weights to insure that each geographic area was represented in a manner proportionate to the incidence of riders in that area. The following table provides a breakdown of the number of interviews completed with riders in each area, the number of households dispositioned with nonriders in each area, and the resulting proportion of riders in each area.

Area	Interviews Completed	Mid-Terminates	Dispositioned Quota Full	Nonriders	Rider Incidence
Downtown	10	0	4	30	.32
North	295	24	74	631	.38
Northwest	117	13	24	515	.23
Suburbs	103	7	24	949	.12
West	53	6	25	137	.38
Southwest	47	6	12	25	.21
South	182	24	43	571	.30
Total	807	80	206	2,858	.26

Using current census data on the number of households in each area, one can then estimate the number of rider households in each area. An area weight was calculated for each of the for each of the three modes in each area. Updated census data (as of 1995) was used as the source for household and population data.

Area	HH Population	Proportion	Rider Households	Proportion
Downtown	25,760	.02	8,192	.02
North	259,789	.20	99,759	.28
Northwest	209,111	.16	48,096	.14
Suburbs	294,383	.22	34,443	.10
West	123,244	.09	46,833	.13
Southwest	109,897	.08	22,639	.06
South	308,913	.23	93,910	.27
Total	1,331,097		353,870	

The following equation was used to develop the individual area weights for each mode:

$$\frac{\text{Subarea population}}{\text{Number of Subarea Interviews (by mode)}} \times \frac{\text{Total Number of Interviews}}{\text{Total Population}}$$

Area weights were then multiplied by the mode weights with the following results:

	Bus Only	Train Only	Mixed Mode
Downtown	2.602906	1.115531024	1.115531
North	0.778622	0.480046656	0.433888
Northwest	1.369146	1.052466185	0.932184
South	1.397529	1.186412673	0.847438
Southwest	1.991149	1.148739814	1.14874
West	1.859321	1.037760459	1.03776
Suburbs	2.143501	1.737363921	1.579422

The number of interviews obtained and the number resulting from the weighting process by area and by mode are shown in the following table.

	Bus Only		Train Only		Mixed Mode	
	Obtained	*Weighted*	*Obtained*	*Weighted*	*Obtained*	*Weighted*
Downtown	3	4	2	2	5	4
North	73	104	94	83	128	105
Northwest	32	46	31	27	54	44
Suburbs	14	20	50	44	39	32
West	24	34	12	11	17	14
Southwest	15	21	6	5	26	21
South	57	81	5	4	120	99
	218	311	200	176	389	320