Optimizing Route-Specific Marketing Strategies to Increase Public Transit Ridership

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Increasing the number and retention of new riders is a primary goal of public transit agencies. As consumers become more accustomed to the influence of advanced technology in their work and home environments, the question can be raised about the kind of transit marketing that will appeal to this contemporary audience. Most transit properties indicate that route specific marketing is more effective than "system focused" efforts. Yet, agencies spend a large amount on system wide techniques. This study tests the efficacy of selected marketing strategies for optimizing public transit patronage.

This study examines system wide and route-oriented marketing strategies to enhance and improve potential patron response in public transit. Several phases of the research were performed concurrently utilizing a comprehensive and two-stage research design.

The test cases and surveys were conducted on the campus of a University in a large urban area. Phase I involved a survey of the travel modes and attitudes of a portion of the faculty, staff and students. Phase II was a focus group which was queried on various marketing techniques.

The study found that both system wide and route specific marketing can be attractive to non-transit users, depending on the message conveyed.
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by

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PREFACE

This document reflects the responses of a portion of the university community in a large urban area regarding travel mode and marketing strategies. The regular, single occupant drivers who were questioned are likely representative of those who drive alone to work in the larger community. The findings from this analysis will provide background data for many upcoming projects in the community, including the employer trip reduction requirement (part of the Clean Air Act Amendment) and a university transit program under examination by the local transit authority. The findings can also be a beginning point for other activity centers, universities and marketing departments within transit agencies.

In addition to the efforts of the primary editors, several Center for Transportation Training and Research staff members made major contributions to this document. Holly Hogrobrooks developed the posters and assisted with conducting the focus group sessions. Ron Goodwin contributed to the formulation of the focus groups, did the trip planning for the bus rides and provided graphic support. Ting Chen assisted with the graphics and Gail Chanpong and Mitch Hansel provided comments on the final draft. Also, funding for the initial tasks were provided by the Texas Department of Energy from the Texas Oil Overcharge Funds.
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ABSTRACT

Increasing the number and retention of new riders is a primary goal of public transit agencies. As consumers become more accustomed to the influence of advanced technology in their work and home environments, the question can be raised of the kind of transit marketing that will appeal to this contemporary audience. Most transit properties indicate that route specific marketing is more effective than system focused efforts. Yet, agencies spend a large amount on system wide techniques.

This study examines system wide and route oriented marketing strategies to enhance and improve potential patron response in public transit. The study also conducts a demonstration project to test the efficacy of selected marketing strategies for optimizing public transit patronage. Several phases of the research were performed concurrently utilizing a comprehensive and two-stage research design.

The test cases and surveys were conducted on the campus of a University in a large urban area. Phase I involved a survey of the travel modes and attitudes of a portion of the faculty, staff and students. Phase II was a focus group which was queried on various marketing techniques.

The study found that both system wide and route specific marketing can be attractive to non-transit users depending on the message conveyed.
Optimizing Route-Specific Marketing Strategies to Increase Public Transit Ridership

EXECUTIVE SUMMARY

Texas Southern University is a major activity center. The university, with a population of approximately 12,500 (students, faculty, staff and administrators) occupies a compact tract of one hundred twenty-eight acres in the Third Ward, community immediately southeast of downtown Houston.

The focus of this study is to examine marketing techniques targeted at the route level that have the potential for successfully at attracting individuals to public transit. Because of cost issues and a desire for widespread coverage, public transit agencies tend to concentrate their marketing efforts at system wide audiences, rather than at the local markets. These system wide efforts generally extol travel time savings, energy savings and overall convenience, in order to attract patrons. Details regarding system utilization or route specific information cannot be provided in the system wide approach. This study selected the Texas Southern University campus as the field site for the examination of the relative effectiveness of route specific as opposed to system wide techniques for attracting patrons.

METHODOLOGY

The study involved two phases of research. The first phase was a survey of the Texas Southern University population distributed in the Spring of 1993. This survey queried current travel modes and attitudes regarding public transit utilization. The second phase of the study was a focus group assessment of various marketing techniques, including print, video and audio.
There were seven regular automobile drivers that comprised each focus group. The focus groups were given a pre-test to determine their attitudes regarding public transit and their response to various advertising strategies. Each member then rode the public transit service to their place of employment or to school. The focus group members were then given a post-test. They also evaluated another set of marketing techniques.

SUMMARY OF FINDINGS

The study findings can be categorized by the surveys of the Texas Southern University community and attitudes and perceptions of the focus group. The numbers in the figures may not add to 100 due to rounding.

Survey Results

The survey of the Texas Southern University community showed that more than 76% of faculty, staff and students drive alone to campus. More than 6% of the faculty/staff and 9% of the students ride the bus currently (See figure 1 below). Approximately 58% of the faculty/staff are unaware of the bus service provided to the campus.

Figure 1

<table>
<thead>
<tr>
<th>Mode of Travel</th>
<th>What is your normal means of transportation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>76.6% Personal Auto (9.2%), Carpool (6.2%), Metro (6.6%)</td>
</tr>
<tr>
<td>Employee</td>
<td>86.4% Personal Auto (6.4%), Carpool (3.6%), Walk (2.7%), Other (1.4%)</td>
</tr>
</tbody>
</table>
Transit is most effective in serving the relatively routine home to work trip. Previous research has showed that persons who must make intermediate stops or those who have varying a.m. and p.m. travel patterns are more difficult to serve with traditional transit service. Almost 5% of Texas Southern University's students arrive at campus from work. On the reverse trip, 21% of students go to work. Further, 40% of students leave off-peak, between noon and 3 p.m. These students may or may not be viable candidates to utilize transit service depending on the work location's relationship to home and school and required work starting times. It is important to capture these students as riders early in their college career, so that decisions can be made focusing on the availability of transit.

Focus Group Responses

By and large, the focus group reported that the bus riding experience was better than they had anticipated that it would be. Participants found that there were bus routes that met their travel needs. Buses were on-time, operators were courteous and the vehicles were clean. However, the focus group members did find that the transfer was more difficult than expected. They also indicated that the bus ride took too long and required them to leave home too early.

In response to the poster advertising strategies, the focus group determined that in general those techniques that provide route specific information would be more likely to attract them from their automobiles than less specific system wide advertising. However, within the system wide strategies, the focus group did respond positively to video advertisements which focused on environmental and quality of life issues. It is important to note that those techniques that focused on congestion and traffic management were not as effective in persuading the focus group to utilize transit.
SUMMARY OF RECOMMENDATIONS

The largest portion of the Texas Southern University student body does not arrive on campus during the typical morning peak hour. Combined with the atypical and elongated departure times, this student group may be somewhat difficult to serve. It is most important in this type of circumstance to gain the students as riders when they first arrive on campus, as freshman. In that way class schedules, job schedules and locations and residential decisions can be based on bus schedules. The findings further suggest that commuter oriented universities should consider scheduling classes to begin and end during peak hours to allow greater flexibility in transit options and more frequent service opportunities than non-peak oriented schedules.

The findings of the focus group regarding the unattractiveness of the transfer indicate that METRO should explore options to increase the direct service levels. If suitable options do not exist, METRO should provide improved waiting conditions at more on the street locations. Future research possibilities may exist in determining whether or not the transfer is more favorably received at the transit centers as opposed to on the street.

A summary of key findings and recommendations from the surveys and the focus group is provided in the following table. These findings can form the basis for increased transit and other multi-occupancy use in metropolitan areas.

It is important to recognize that the issues that are important to transportation professionals, such as reduced congestion and management of transportation resources, may not be the issues that appeal to the general public. Lastly, though obvious, it is worth stating that the public must know what specific service is available and must not feel substantial inconvenience by switching from automobile to public transit.
## Summary of Findings and Recommendations

<table>
<thead>
<tr>
<th>Findings</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over half of TSU employees are unaware of METRO service options</td>
<td>Transit Authority should provide specific route information at multiple locations</td>
</tr>
<tr>
<td>Transfers are considered onerous</td>
<td>Transit authority should explore lessening the inconvenience of the transfer.</td>
</tr>
<tr>
<td></td>
<td>• Improve waiting conditions</td>
</tr>
<tr>
<td></td>
<td>• Direct services to as many locations as possible</td>
</tr>
<tr>
<td>Door hangers and other route specific approaches were rated highly</td>
<td>Transit authority should conduct as much marketing as reasonable oriented to the route level</td>
</tr>
<tr>
<td>System wide marketing focused on congestion management was not highly rated; environmentally focused advertisements were rated more highly</td>
<td>More systemwide advertisements should focus on environmental and improved quality of life issues</td>
</tr>
<tr>
<td>Students have atypical and non-peak oriented schedules</td>
<td>Attract students as incoming freshmen, so future decisions can be made in light of transit information</td>
</tr>
<tr>
<td>Journey by bus was too long for complete satisfaction</td>
<td>Strive to compete with car; reduce bus travel time</td>
</tr>
</tbody>
</table>
PROJECT TITLE: Optimizing Route-Specific Marketing Strategies to Increase Public Transit Ridership

INTRODUCTION

Texas Southern University is a major activity center. The university, with a population of approximately 12,500 (students, faculty, staff and administrators) occupies a compact tract of one hundred twenty-eight acres in the highly-dense Third Ward community immediately southeast of downtown Houston. Almost adjacent to TSU—immediately to the east—are Jack Yates Senior High School, a public school campus of approximately 2,500 students and faculty, and the University of Houston, a larger, more complex institutional community with similar concerns for traffic and congestion.

The focus of this study is to examine marketing techniques targeted at the route level that have the potential for successfully attracting individuals to public transit. Because of cost issues and a desire for widespread coverage, public transit agencies tend to concentrate their marketing efforts at system wide audiences, rather than at the local markets. These system wide efforts generally extol travel time savings, energy savings and overall convenience, in order to attract patrons. Details of specific guidance in utilizing the system or provision of route specific information cannot be provided in the system wide approach. This study selected the Texas Southern University campus as the field site for the examination of the relative effectiveness of route specific as opposed to system wide techniques for attracting patrons.

A second purpose of this study is to establish a basis by which to encourage use of Houston METRO service to the Texas Southern University campus by students, faculty and staff. The
university environment was selected for several reasons: (1.) there is a very high utilization of personal automobiles (greater than 76%) as the primary mode of transportation for university students and employees; (2.) the high density of automobiles within the campus environment contributes to traffic and public safety hazards; (3.) the university, as employer, is among the first scheduled to meet an EPA mandate to reduce the number of employee trips by automobile; and (4.) the peak demand on the current supply of parking spaces creates overcrowding, illegal parking and encroachment on the surrounding neighborhood.

This project examines the marketing strategies utilized by selected public transit agencies in urban areas in the United States. Previous research has indicated that many transit properties encounter difficulties in addressing changing marketing conditions (TRB, 1984:47). Some studies suggest that this difficulty stems not only from the physical configuration of public transit systems but also from fundamental resistance to change. This appears to be true when change may result in additional requirements for labor and training, major scheduling changes, and new equipment needs. These factors coupled with dispersed travel patterns typical of suburban and exurban markets pose difficult challenges to public transit service providers. Appropriate marketing strategies for restructuring transit service and for identifying techniques for exploiting new market opportunities may assist transit managers in increasing the level of patronage on specific routes.

The outcomes of this study, because of its unique setting and population, have implications for addressing increased public transit use by employee groups and student populations faced with changes in transportation habits mandated by policy or public conscience.
PROJECT BACKGROUND

The decline in transit ridership in recent years, combined with higher operating costs and reduced federal subsidies, have induced the public transit industry to investigate an increasingly broad range of marketing strategies. A variety of transit marketing demonstration projects and research efforts have been sponsored by the Urban Mass Transportation Administration (now Federal Transit Administration) and individual transit properties. UMTA disseminated a *Transit Marketing Management Handbook* in November, 1975. The document was based on a study by Lesko Associates in collaboration with Smith and Locke Associates. Over 100 transit systems were asked to participate in the project. The study concluded that marketing has a "basic functional responsibility within transit systems...if transit systems are to be responsive to the public's needs." The document further noted that "it is important to identify, compare, and assess the marketing function and alternative approaches to decision processes and formal organizational structures" (USDOT, 1975:1). Hatfield, Bovey and Guseman (1976) developed a marketing handbook for public transportation for purposes of familiarizing individuals interested in the basic components of a marketing program for use in transit and to provide specific examples of promotional tools and campaign ideas. The report recommended three alternative marketing strategies: undifferentiated marketing, differentiated marketing, and concentrated marketing.

Ledé and Cooper (1983) completed a multi-phase project which was designed to increase the level of public transit patronage among special user groups through strategic marketing and promotional strategies. The special user groups included the elderly, young, handicapped and poor. Findings of the study were used to develop a marketing plan to increase public transit patronage among school children. Gibbs (1983) conducted an evaluation of the extent to which transit properties considered minorities in marketing activities. The study analyzed specific marketing activities conducted by a sample of transit properties to determine their effects upon
minorities. The findings suggested that there were limited special efforts to include minorities in increased transit awareness. Blacks, in particular, appeared to be most interested in routes, scheduling and fares. It should be pointed out that the results were not generalizable across the public transit industry. However, the findings suggest the need for a more controlled, in-depth analysis of marketing effectiveness on specific routes.

Other studies have examined a variety of issues. Smerk (1977) argued that effective marketing and overall better management are the most important means of increasing productivity in a publicly-owned transit system. On the other hand, Morris (1978) asserted that good transit marketing means doing everything needed to get riders to use transit instead of their cars. Mundy (1974), like Smerk, attributed the lack of effective marketing from a consumer-oriented perspective to internal management problems. During the earlier periods of debate about the value of marketing, USDOT and the American Public Transit Association sponsored a conference on the issues. The objective of the conference was to foster the transit industry's awareness, acceptance, understanding and successful application of marketing techniques. Issues discussed included marketing's applicability to public transit and a "how-to" focus on marketing for transit.

From these deliberations sprang a series of publications on transit marketing management. Caruso (1988) compiled a state-of-the-art report on consumer research as it applies to the specific problems of transit marketers. The report emphasizes basic marketing principles rather than detailed techniques; it is problem-oriented not technique-oriented as were earlier studies. A series of USDOT/UMTA sponsored studies and others by highway departments in various states have emerged during the past two decades. These documents are cited in the Bibliography. For the most part, these studies are more closely aligned with "marketing plans for action" or implementation. Few of these studies present evidence of effectiveness as it pertains to increased ridership and system performance. There is literature on marketing function, which encompasses
marketing research, service development, pricing, promotion, consumer aids, and a few on evaluation. Fleishman (1985) and others evaluated route-specific marketing strategies utilized by the Metropolitan Transit Commission (MTC) in Minneapolis/St. Paul, Minnesota. The demonstration was funded under the Service and Methods Demonstration (SDM) program of the Urban Mass Transportation Administration (UMTA). The approach involved route-specific demonstrations rather than system wide. Pre-tests and post-tests were included as part of the methodology. The findings indicated that awareness among the target corridor residents increased but the level of patronage remained the same (Fleishman, 1985: ix-xiv).

In 1988, the American Public Transit Administration conducted a survey of its members to ascertain the relative funding levels and techniques utilized for marketing activities. As part of the survey, the members rated the effectiveness of the various methods. The ratings designated high, medium, and low effectiveness levels. Those marketing activities that provided route level information received the highest effectiveness ratings. The individual route and timetables, the telephone information and customer service stores were rated high by more than 75% of respondents. Those methods that tend to focus systemwide had effectiveness ratings in the 40-50% range. The percentages of the total marketing budgets applied to the individual methods was highest on the telephone information (23%), followed by the route and timetables (10%). The survey showed that small budget percentages are distributed among a variety of marketing methods. It was not possible from the information presented to ascertain the funding distribution between the system wide and local efforts.

PROBLEM STATEMENT

Increasing the number and retention of new riders is a primary goal of public transit agencies. As consumers become more accustomed to the influence of advanced technology in their work
and home environments, the question can be raised regarding the kinds of transit marketing strategies and techniques that will appeal to this contemporary audience. In times past, some public transit properties did not see the need to advertise and some even thought that advertising dollars were an unwise public investment. However, most public transit agencies now recognize the importance of marketing as a strategy to attract riders and designate a portion of their annual budgets to information dissemination in various forms. As outlined in the project background, most transit marketers indicate that route specific strategies are more effective than system wide strategies. The issues to be examined in this research are as follows: 1) the rational for mode selection and the travel characteristics of Texas Southern University faculty, students and staff and 2) the responses of a focus group to route specific and system wide marketing approaches.

METHODOLOGY

The study involved two phases of research. The first phase was a survey of the Texas Southern University population distributed in the Spring of 1993. Two versions of the survey were disseminated; one for faculty/staff and another for students. The survey was distributed in payroll checks to 1,155 full and part-time employees. The response rate of return for faculty/staff surveys was 9.5% (110 surveys). The student sample was drawn to be reflective of the distribution of students by class rank. Texas Southern University's student enrollment in 1992/93 was 10,500. Approximately 20% percent of the student population was targeted for survey distribution. The codeable surveys returned were 489 or 4.8% of the student body (less doctoral students). Doctoral students were not included because of the potential overlap with the faculty/staff area. Further, the majority of doctoral classes are offered at night when the level of bus service and opportunity to utilize that service decreases significantly. In order to not
overrepresent any one class, the students receiving surveys did not exceed the following numerical distribution:

<table>
<thead>
<tr>
<th>Class</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>800</td>
</tr>
<tr>
<td>Sophomores</td>
<td>300</td>
</tr>
<tr>
<td>Juniors</td>
<td>200</td>
</tr>
<tr>
<td>Seniors</td>
<td>300</td>
</tr>
<tr>
<td>Masters</td>
<td>300</td>
</tr>
<tr>
<td>Law</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>2000</td>
</tr>
</tbody>
</table>

The second phase of the study was a focus group assessment of various marketing techniques, including print, video and audio. There were five regular automobile drivers that comprised the seven members of each focus group. The focus groups were given a pre-test to determine their attitudes regarding public transit and their response to various advertising strategies. Each group member then rode METRO to campus or to their place of employment and back for one day. The project provided the tokens to cover the cost of the ride. After the ride, the focus group members were given a post-test and were asked to rate another set of marketing strategies. (See appendixes for survey instrument and array of print marketing techniques). The results reported in the text and shown in the figures may not add to 100% due to rounding.

The literature was utilized to confirm marketing concepts and to serve as a base to assess the strategies and techniques underway in several transit properties throughout the nation.
MAJOR FINDINGS

Phase 1: Campus-wide Survey

The survey was designed to ascertain the travel patterns and characteristics of the Texas Southern University employee and student populations. The survey shows that almost half (48.2%) of the employees arrive on campus prior to 8:00 a.m. which corresponds to the normal peak hour. This is an impressive percentage considering the number of professors that have non-traditional schedules. Another 42.7% arrive between 8:00 a.m. and 10:00 a.m. (figure 1). Approximately 5% of the respondents indicated that they have a Monday, Wednesday, Friday schedule while 93% work all weekdays. The majority of Texas Southern University employees drive to work (86.4%). The second highest category of travel mode is transit with 6.4% of employees currently using METRO. Approximately 3.6% of the employees carpool and 2% walk (figure 2). The transit mode split (percent bus of total trips) for campus employees compares favorably with that of other employment centers outside of downtown (Texas Medical Center roughly 9% and Uptown/Galleria roughly 3%).
When questioned about their knowledge of METRO service, 58% of the respondents did not know which bus routes service Texas Southern University. The primary reason given as to why more employees currently do not ride the bus is due to other responsibilities (36%). Respondents also indicated lack of convenient bus service (17.3%) and excessive travel times (10.7%) as reasons for not utilizing METRO (figure 3).
As part of the Clean Air Act Amendment, Houston area employees that work at companies with more than 100 employees will have to reduce vehicle miles traveled to the work place. One survey question queried the respondents as to the mode of travel they would chose if they could no longer drive to work alone. Almost thirty-two percent indicated that they would take the bus, 24% would carpool and roughly 14% would walk. A large percentage (24.4%) said that they would be absent from work under the condition that driving was prohibited (figure 4).

![Figure 4: Desired Mode if Car Not Utilized](image)

Employee survey respondents were comprised of 37.3% faculty members. This is roughly reflective of the distribution of the population as 31.6% of the employees are faculty. The survey response rate was 9.5% (110 surveys of 1,155 faculty/staff).

The faculty and student surveys were identical in the questions raised. The undergraduate students are 80% of the student body. Graduate student responses mirrored their portion of the student body, accounting for 20% of the surveys returned (95 of 483). The survey responses shown in figures 1-4 and in the appendix reflect combined undergraduate and graduate level responses. However, some of the data presented below are discussed by levels for comparison purposes.
The survey responses show that fewer than 20% of undergraduate and graduate student respondents arrive on campus before 8:00 a.m. Thus, most students arrive during off-peak hours. Approximately 62% arrive on campus by 10 a.m. (figure 1). The days that the students are on campus is somewhat varied by the academic level. Eighty-one percent of the undergraduate students are on campus all five weekdays, while 70% of graduate students are present on five days. Twenty eight percent of graduate students attend classes on the Monday, Wednesday, Friday schedule compared to 14% of undergraduates who have this schedule.

Transit is most effective in serving the home to work trip. Previous research has showed that persons who must make intermediate stops or those who have varying a.m. and p.m. travel patterns are more difficult to serve with traditional transit service. Almost 5% of Texas Southern University's students arrive at campus from work. From campus, 21% of students go to work. Further, 40% of students leave off-peak, between noon and 3 p.m. (figure 5). These students may or may not be viable candidates to utilize transit service depending on the work location's relationship to home and school, and required work starting times. Over seventy-six percent (76.6 %) of the students drive alone, 9% ride the bus and 6.6% carpool (figure 2).
The primary reason students gave for not using the bus is that buses are unreliable (31.3%). Seventeen percent claimed that there is no convenient bus line and 10% cite personal safety concerns. Interestingly, despite the previously mentioned percentage of students that work, only 1.5% indicate that they do not utilize the bus because their other responsibilities require the use of a car (figure 3). When asked what choice they would make if they could no longer drive their car to campus, only 2.7% of students would select the bus as an alternative. Approximately 18% of both students and employees indicated that they would carpool (figure 4).

Phase 2: Focus Groups

The focus group began by responding to a pre-test which queried the respondents on their opinions and perspectives regarding various aspects of METRO service. The group provided opinions on service issues, operator courtesy and system utilization. Four of the questions could be categorized as operational, two as safety and three as image. The pre-test and post-test showed that the perception of bus riding is often more negative than the reality participants found after riding the bus.

Operational Aspects: From an operational perspective, some participant’s opinion did improve after riding the bus. More of them thought the service was dependable after riding (57% to 86%) and those who indicated that there was no bus line to meet their needs decreased from 43% to 29%. However, 14% had no opinion regarding transit’s ability to meet their travel needs after riding.

A necessary component of transit riding in most large urban areas is the requirement for the patron to transfer to complete a trip. Focus group participants were queried about their perceptions of the transfer. The participant’s impression of the transfer did not improve after riding. Before riding, 29% of the respondents strongly felt that the transfer would not be
problematic. None retained that opinion after riding. The respondents indicating no difficulty with the transfer remained unchanged after the bus ride (57%). Twenty-nine percent did not have an opinion about the transfer after riding. It is likely that these individuals did not transfer on their trip (figure 8).

---

**Figure 6**
Public transit does not operate on time and is not dependable

- Pre-Test:
  - No Opinion: 29%
  - Disagree: 14%
  - Strongly Disagree: 57%

- Post-Test:
  - No Opinion: 14%
  - Disagree: 14%
  - Strongly Disagree: 86%

---

**Figure 7**
There is no bus line that can adequately serve my transportation needs

- Pre-Test:
  - Agree: 43%
  - No Opinion: 14%
  - Disagree: 43%

- Post-Test:
  - Agree: 43%
  - No Opinion: 14%
  - Disagree: 29%
  - Strongly Disagree: 14%
The other area in which participant opinions did not improve after riding is the time one must arise to board the bus. Both the pre-test and post-test showed that 43% of the participants agreed that the bus ride required them to get up too early. Another 29% in both tests strongly agreed with this statement. Fourteen percent in the pre-test reflected they would not have to get up too early when riding the bus. That percentage decreased to zero after riding the bus (figure 9).
Safety Aspects: When examining the issues of safety, it is significant and important that the focus group participants felt secure during their ride. When responding to the question, "I was concerned for my safety", only 14% strongly disagreed during the pre-test. This percentage increased to 43% after respondents rode the bus. By the same token, 14% indicated they were concerned for their safety before and after riding the bus. A related safety question was regarding other patrons on the bus. The focus group was asked what they thought about the characteristics of other bus riders. Eighty-six percent of the respondents disagreed or strongly disagreed with the statement, "People who ride the bus are drunken, smelly, and low class" (figures 10 and 11).
Personal Image: Three questions examined image related areas of bus riding. When presented with the statement, "Buses are always dirty", twenty-nine (29%) of pre-test respondents disagreed. That figure swelled to 86% after the ride. While those who strongly disagreed with the statement also shrank, so did those with no opinion. Regarding the statement, "Riding the bus is bad for my image", only 14% disagreed before riding, but 71% disagreed after riding. It should be noted that beside the large percentage that determined the bus is not bad for their image, 14% indicated that riding the bus was bad for their image. This was after no respondents agreed in the pre-test. It was not within the scope of this study to delve into this response in depth. It may be of interest to later research efforts to assess the rationale for the negative image and determine what transit authority response might be. The respondent's perceptions of bus operators improved after riding the bus. Overall, all respondents disagreed with the statement, "Bus drivers are rude, crude and extremely discourteous", after riding. (figures 12, 13 and 14).
Figure 12
Buses are always dirty

Pre-Test
- 57%
- 14%
- 29%

Post-Test
- 14%

- No Opinion
- Disagree
- Strongly Disagree

Figure 13
Riding the bus was bad for my image.

Pre-Test
- 57%
- 14%

Post-Test
- 14%
- 14%
- 71%

- Agree
- No Opinion
- Disagree
- Strongly Disagree
Selected responses from the pre-test and post-test are summarized in Table 1. Overall the respondents indicated that the METRO service and experience of transit riding was more positive than they had anticipated. The principle exceptions were in the area of the bus to bus transfer and in the overall travel time required. Importantly, the respondents did learn that bus service is available to meet their travel needs.

Focus Groups Response To Marketing Techniques

The pre-test and post-test responses set the basis for examining the perspectives of the focus group participants regarding the sample marketing techniques. Sample materials were selected from several public transit agencies and adapted from popular song lyrics. Also original poster designs were developed by Center for Transportation Training and Research staff. METRO marketing personnel prepared the selected poster design for use at Texas Southern University's Fall 1993 registration. This poster was modified from the design utilized in the focus group session. Each marketing example is described in the following section along with its rating by the participants. The posters are displayed in appendix C. For each marketing technique, the
### Table 1
Focus Group Pre-Test, Post-Test Comparisons on Selected Statements

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-Test (%)</th>
<th>Post-Test (%)</th>
<th>Variance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Opinion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Opinion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Public Transit does not operate on time and is not reliable.**
  - Pre-Test: 0%
  - Post-Test: 0%
  - Variance: 14%

- **I have to get up too early if I use the bus regularly for transportation.**
  - Pre-Test: 29%
  - Post-Test: 43%
  - Variance: 15%

- **My trip would take too long on the bus.**
  - Pre-Test: 29%
  - Post-Test: 14%
  - Variance: 15%

- **Riding the bus would be bad for my image.**
  - Pre-Test: 0%
  - Post-Test: 14%
  - Variance: 29%

- **I may get lost if I have to transfer.**
  - Pre-Test: 0%
  - Post-Test: 29%
  - Variance: 29%

- **There is no bus line that can adequately serve my transportation needs.**
  - Pre-Test: 0%
  - Post-Test: 43%
  - Variance: 14%

Note: Pre-Test and Post-Test responses may not equal 100% due to rounding.
question asked was "Would this medium attract you from your car?". The respondents noted their response on a five point scale from "strongly agree to strongly disagree". The responses to posters and videos are reflected in table 2 and table 3.

Posters

A summary of each poster and the focus group assessment of that poster's effectiveness are described below.

Poster A: This poster was to focus student attention on the expenses and inconveniences of driving a car to campus. It asked how many tickets they had received, how often they had been late or whether they had run out of gas. The poster then directed the reader to board METRO and identified the routes that service Texas Southern University. Seventy-one percent (71%) of the respondents agreed that this poster would attract them from their automobiles; the remainder disagreed.

Poster B: Poster B showed African village women and children who appear to be on the way to market. The caption is "No matter where you start your trip.... METRO gets you there from here". It was envisioned that various ethnic or cultural scenes could be placed at the top of the poster. This poster received the highest rating from the focus group participants with 29% strongly agreeing and 71% agreeing that this poster would attract them from their car.

Poster C: A large "Wanted" notation headed this poster. A man with empty pockets illustrated the caption "People who don't want to be broke, hassled and forever frustrated. METRO promises you cheap, hassle-free, relaxing transportation!" Fifty-seven percent (57%) agreed that this poster was effective, while 14% had no opinion and 28% disagreed.
Poster D: Poster D presented paragraph discussions on money and power. The accompanying illustrations displayed a pig bank and a waiter. Only 29% cited this poster as being effective with the remaining responses distributed between no opinion and disagreement.

Poster E: The caption on Poster E read "We got your number, make sure you got ours" and displayed a mobster. Forty-three percent of the respondents agreed that the advertisement would attract them from their car, fourteen, 14% had no opinion and the remainder disagreed.

Poster F: The Poster F asked the reader "Where do you want your money? In your wallet? or Down the drain?" The illustrations supported the caption by showing a delighted man and one falling. Forty-three percent (43%) of the focus group participants agreed that this technique would attract them from their car; 14% had no opinion and the remainder disagreed.

Poster G: Poster G was a hang tag intended to go on the residential door of potential patrons. The hang tag displayed information on the nearest route to the residence and explained the various destinations that were accessible via this route. This method was deemed the most effective by the participants with 72% agreeing with the ability of the hang tag to attract them from their automobile. Fourteen percent of the respondents had no opinion and 14% disagreed.
Table 2
Focus Group Responses
(Transparencies)
Statement: This poster would attract me from my car.

<table>
<thead>
<tr>
<th>Poster</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>*</td>
<td>71%</td>
<td>*</td>
<td>29%</td>
<td>*</td>
</tr>
<tr>
<td>B</td>
<td>29%</td>
<td>71%</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>C</td>
<td>*</td>
<td>57%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>D</td>
<td>*</td>
<td>29%</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>E</td>
<td>*</td>
<td>43%</td>
<td>14%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>F</td>
<td>14%</td>
<td>29%</td>
<td>14%</td>
<td>43%</td>
<td>*</td>
</tr>
<tr>
<td>G</td>
<td>29%</td>
<td>43%</td>
<td>14%</td>
<td>14%</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: Strongly Agree / Agree and Strongly Disagree / Agree were aggregated in the text for discussion purposes.
* No Responses

Video
The respondents were presented ten video segments that have been utilized in marketing projects by selected transit agencies. The respondents were asked to rate each advertisement as to its potential persuasiveness relative to attracting them from their automobile. The respondents indicated on a five point scale whether they agreed, disagreed or had no opinion when asked, "This advertisement would attract me from my automobile." A summary of each video segment and its rating by the focus group are described below.
Video A: This video shows extreme traffic congestion. The appeal is in the viewer's desire to be removed from the traffic. Forty percent (40%) of the focus group agreed that this video was effective, while 60% had no opinion.

Video B: This video focuses on the vast amount of land required to accommodate an increasing number of automobiles. The basic concept is to appeal to the viewer's sense of considering space as a valuable resource. Sixty percent (60%) of the focus group rated this strategy as effective, while 40% had no opinion.

Video C: This video shows a polluted skyline and indicates that 60% of pollution comes from automobiles. It appeals to the environmental consciousness of the viewer. All respondents indicated that this approach is effective with 40% strongly supporting this viewpoint.

Video D: The second pollution video explains that 47 cars can be removed from the roadway when a bus is filled. The air quality benefits are stressed, thereafter. Eighty percent (80%) of the respondents thought this would be effective, while 20% disagreed.

Video E: Various makes and models of automobiles are flashed in rapid succession. The last vehicle was a bus. The benefits of riding were highlighted. Twenty percent (20%) of respondents found this advertisement to be effective, 20% found the advertisement ineffective and 60% had no opinion.

Video F: The viewer saw dollars disappearing down a pit and was focused on the cost of single occupant traveling versus bus riding. Respondents were equally divided regarding the advertisement's effectiveness with 40% agreeing and disagreeing that they could be drawn from their automobile by this video. Twenty percent ((20%) had no opinion.
Video G: This video showed how individuals are always on the move and encouraged the viewer to diminish single occupant traveling. Eighty percent of the focus group members determined that this approach is effective, with 20% having no opinion.

Table 3
Focus Group Responses
(Video)

Statement: This Video would attract me from my car.

<table>
<thead>
<tr>
<th>Video</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>*</td>
<td>40%</td>
<td>60%</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>B</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>C</td>
<td>40%</td>
<td>60%</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>D</td>
<td>*</td>
<td>80%</td>
<td>*</td>
<td>20%</td>
<td>*</td>
</tr>
<tr>
<td>E</td>
<td>*</td>
<td>20%</td>
<td>60%</td>
<td>20%</td>
<td>*</td>
</tr>
<tr>
<td>F</td>
<td>*</td>
<td>40%</td>
<td>20%</td>
<td>40%</td>
<td>*</td>
</tr>
<tr>
<td>G</td>
<td>*</td>
<td>80%</td>
<td>20%</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: Strongly Agree / Agree and Strong Disagree / Agree were aggregated in the text for discussion purposes.

* No responses

Audio

A tape was played for the focus group that had a lyric with an upbeat tune. The words were to downrate the traffic jam and conveyed to singer's hating to be late. The focus group reaction was mixed with 50% agreeing that the tape would be effective and 50% suggesting that it would not be effective.
Assessment Of The System Wide And Route Specific Techniques

Three of the posters (A, B and G) had the highest ratings with minimum to moderate disagreement. Posters A and G offered route specific information as part of the text. All other posters were system focused and reflected 57% or fewer positives responses.

None of the videos showed route specific information. This is not surprising since the cost of video production is relatively high and is generally developed for wide spread market appeal. Nonetheless, several of the videos garnered a 80% or higher response in potential to attract the viewer from the automobile. It is interesting that these videos focus on civic mindedness, highlighting either air pollution or single occupant driving. The videos that discussed congestion and travel time reduction were less effective with the group.

Metro Booth At Fall Registration

METRO personnel set up an information display at the Fall, 1993 Texas Southern University registration. One of the promotional pieces utilized to attract students was the Poster A described above. METRO was available during the entire registration period and distributed specific bus route information for those routes serving the campus. Over 225 students were provided information during the registration week. METRO is currently conducting a follow-up assessment to determine the levels of ridership that resulted from this activity. A subsequent report will detail the findings from the survey. Further METRO is embarking on a study to determine the potential for designing student oriented programs in a joint effort between Texas Southern University and METRO.
SUMMARY OF FINDINGS AND RECOMMENDATIONS FOR POLICY

This study's purpose was to determine the current level of transit ridership of Texas Southern University students and faculty/staff and explore the kinds of marketing strategies that could attract typical automobile riders to buses.

Many in the university community arrive at work during the same general morning peak as the general population (19% of students and 48% of faculty). The departing times, however, are unlike the general work force as they tend to be more highly distributed. This indicates that while the more frequent peak hour bus schedules might be attractive for arrivals to campus, many afternoon trips would be subject to the less frequent scheduling of non-peak hours. The upcoming Clean Air Act Amendment which mandates the reduction of employee trip making will affect Texas Southern University faculty and staff. A large percentage of the employees indicated that they would take a bus under restricted driving conditions. However, 58% have no knowledge of existing bus routes or schedules. An information effort to advise the faculty and staff of the available bus routes would be advantageous to METRO and the Texas Southern University community.

The largest portion of the student body does not arrive on campus during the typical morning peak hour. Combined with the atypical and elongated departure times, this student group may be somewhat difficult to serve. It is most important in this type of circumstance to gain the students as riders when they first arrive on campus, as freshman. In that way class schedules, job schedules and locations and residential decisions can be based on bus schedules.

The implications for other commuter oriented universities are that scheduling classes to begin and end during peak hours will allow greater flexibility in transit options and more frequent
service opportunities than non-peak oriented schedules. Further, efforts should be focused on attracting students at the beginning of the educational process so that they develop patterns of transit utilization.

METRO is in the process of conducting a survey of those persons who visited the booth at the Fall, 1993 registration. The objective is to document the ridership levels of those persons who obtained information. Elements that will be evaluated include the relative importance of the material distributed, the availability of trip planning and the presence of a person to respond to inquiries. It will be important to determine whether short term or long term ridership patterns developed. Thus, the findings from this study will be periodically monitored to ascertain longer term impacts.

From the focus group perspective, information that provided route specific information was highly rated. System wide marketing efforts with an operational or congestion related appeal were not highly rated by the participants. However, the system wide strategies that concentrated on the environment and on clean air objectives (those we termed conscious provoking) were deemed to have the best potential for attracting the focus group participants from their automobiles.

It is interesting to note that the current daily mode split to campus is comparable to that of the Uptown/Galleria area. Only downtown and the Texas Medical Center are known to have higher mode splits. As the Clean Air Act requirements come into effect, this percentage may increase. However, the current METRO service design would require many employees to transfer. Only four local routes serve the campus directly, the 77 Martin Luther King from southeast Houston, 28 Southmore from southeast Houston, 80 Dowling inner southeast Houston and 68 Brays Bayou from southwest Houston (See appendix D). There is no express service to the campus. It was not the purpose of this study to examine bus trip making for the campus nor determine if another
route structure would serve a larger number of employees directly. However, the findings of the focus group regarding the unattractiveness of the bus transfer, combined with the current bus utilization levels and the employees who indicated they would ride under restricted driving mandates indicates METRO should explore options to increase the direct service levels to campus. If suitable options do not exist, METRO should provide improved waiting conditions at more on the street locations. Future research possibilities may exist in determining whether or not the bus transfer is more favorably received at the transit centers as opposed to on the street.

There were several unsolicited comments from the focus group. One was that current marketing strategies should take advantage of the innovations in technology and provide the customer with interesting, animated and colorful approaches. It was also suggested that METRO provide an information channel on the radio. Lastly, participants suggested that more routing information be available on the buses.

A summary of key findings and recommendations from the surveys and the focus group is provided in Table 4. While the respondents represent a portion of the Texas Southern University community and a smaller portion of citizenry, regionwide, their preconceptions, attitudes, and knowledge base about existing transit service, represent an important information source for transportation professionals. The findings can be pursued and expanded to form the basis for increased transit and other multi-occupancy use in metropolitan areas. It is important to recognize that the issues that are important to transportation professionals, such as reduced congestion and management of transportation resources, may not be the issues that appeal to the general public. Lastly, though obvious, it is worth stating that the public must know what specific service is available and must not feel substantial inconvenience by switching from automobile to public transit.
<table>
<thead>
<tr>
<th>Findings</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over half of TSU employees are unaware of METRO service options</td>
<td>Transit Authority should provide specific route information at multiple locations</td>
</tr>
<tr>
<td>Transfers are considered onerous</td>
<td>Transit authority should explore lessening the inconvenience of the transfer.</td>
</tr>
<tr>
<td></td>
<td>• Improve waiting conditions</td>
</tr>
<tr>
<td></td>
<td>• Direct services to as many locations as possible</td>
</tr>
<tr>
<td>Door hangers and other route specific approaches were rated highly</td>
<td>Transit authority should conduct as much marketing as reasonable oriented to the route level</td>
</tr>
<tr>
<td>System wide marketing focused on congestion management was not highly rated; environmentally focused advertisements were rated more highly</td>
<td>More systemwide advertisements should focus on environmental and improved quality of life issues</td>
</tr>
<tr>
<td>Students have atypical and non-peak oriented schedules</td>
<td>Attract students as incoming freshmen, so future decisions can be made in light of transit information</td>
</tr>
<tr>
<td>Journey by bus was too long for complete satisfaction</td>
<td>Strive to compete with car; reduce bus travel time</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


Lede, Naomi W. and Larry C. Cooper. "Workshop on How to Market Public Transportation", A Workshop Sponsored by the Center for Transportation Training and Research, Texas Southern University, July 16-18,1985. The Workshop was funded, in part, by a grant from the Urban Mass Transportation Administration, Washington, D. C.


Appendix A  Texas Southern University Faculty & Student Surveys

Appendix B  Focus Group Pre - Test
Focus Group Post - Test

Appendix C  Poster A - G

Appendix D  Map of Bus Routes Serving Texas Southern University
Texas Southern University Survey

Employee

1. When do you normally come to the campus?
   - Before 8:00 a.m. [48.2%]
   - Before 8:00 & 10: a.m. [42.7%]
   - Before 10:00 a.m. and noon [ .9%]
   - Before noon and 5:00 p.m. [ 7.3%]
   - After 5:00 p.m. [ .9%]

2. I am usually on campus...
   - M. W. F [ 5.5%]
   - Tu. Th. [ ]
   - All weekdays [93.6%]
   - Sat. Sun. [ ]

3. What is your normal means of transportation?
   - Personal auto [86.4%]
   - Carpool (with one or more persons) [ 3.6%]
   - METRO [ 6.4%]
   - Taxi [ ]
   - Walk [ 2.7%]
   - Other specify ______________ [ ]

4. You usually come to TSU from...
   - Home? [ 98.2%]
   - Work? [ 1.8%]

Closest street intersection: ____________________ @ ____________________
5. You usually leave TSU headed for ....
   Home? [95.5%]
   Work? [2.7%]

   Closest street intersection: ____________________ @ ____________________

6. When do you normally leave the campus?
   After 5:00 p.m. [67.3%]
   Between 3:00 & 5:00 p.m. [23.6%]
   Between noon and 3:00 p.m. [4.5%]
   Between 10 a.m. & noon [1.8%]
   Before 10:00 a.m. [ ]

7. Do you know what METRO bus lines serve TSU?
   Yes [40.9%]
   No [58.2%]

8. If you routinely travel by METRO, what busline(s) do you usually take (include all buses that make up your trip)?
   To TSU: 68 - 8.2%, 42 - 9%, 80 - 2.7%, 121 - .9%.
   From TSU: 68 - 10%, 28 - 1.8%, 80 - 4.5%.

9. While I am at TSU, I spend most of my time in ...
   Name building(s) HH 20.9%/TECH 10%, MLK 7.3%/NABRIT 7.3%.
   [ ] Other specify LAW 9.1%/BELL 8.2%/EDUC 6.4% OTHER 28.2%.
10. If you do not routinely use METRO, what are your reason(s)?

Travel time too long [10.7%]
No convenient bus line [17.3%]
Personal safety concerns [9.1%]
My other responsibilities require the use of a car [36.4%]
I don’t find it appealing [7.3%]
I’m afraid I’ll get lost [0.9%]
Fares too high [0.9%]
Buses are unreliable [1.8%]
* Remainder no response

11. Approximately what does it cost you to operate your automobile each month?

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car note</td>
<td>$________</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td></td>
</tr>
<tr>
<td>Maintenance &amp; repair</td>
<td></td>
</tr>
<tr>
<td>License &amp; inspection / 12</td>
<td></td>
</tr>
<tr>
<td>TSU Parking fee / ___ mos.</td>
<td></td>
</tr>
</tbody>
</table>

Estimated monthly operating cost: $________

12. What kind of automobile do you drive?

make ___________ model ___________ year ___________
13. If on tomorrow you were told you could drive your car to the campus only four days a week, what would you do on the other day?

Take the bus [31.7%]
Carpool [24.4%]
Walk [14.6%]
Bicycle [4.8%]
Be absent [24.4%]
Other specify __________________ [ ]

14. Tell us a bit about yourself (check all that apply):

Faculty member [37.3%]
Staff [50.9%]
Administrator [10.0%]

Full-time [ ]
Part-time [ ]

Age: 18 - 24 [1.8%]
25 - 34 [25.5%]
35 - 44 [20.9%]
45 - 54 [36.4%]
55 - 64 [9.1%]
over 65 [4.5%]

Gender: Male [31.8%]
Female [65.5%]
Family income:

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>under $10,000</td>
<td>1.8%</td>
</tr>
<tr>
<td>$10,000 - $19,999</td>
<td>20.0%</td>
</tr>
<tr>
<td>$20,000 - $29,999</td>
<td>14.5%</td>
</tr>
<tr>
<td>$30,000 - $44,999</td>
<td>19.1%</td>
</tr>
<tr>
<td>$45,000 - $59,999</td>
<td>13.6%</td>
</tr>
<tr>
<td>$60,000 &amp; over</td>
<td>29.1%</td>
</tr>
</tbody>
</table>

Race/ethnic:

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>80.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.8%</td>
</tr>
<tr>
<td>Asian</td>
<td>3.6%</td>
</tr>
<tr>
<td>White/Anglo</td>
<td>10.9%</td>
</tr>
<tr>
<td>All other</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Status:

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Citizen</td>
<td>97.3%</td>
</tr>
<tr>
<td>Resident Alien</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
Texas Southern University Survey

Student

1. When do you normally come to the campus?
   
   Before 8:00 a.m. [19.4%]
   Before 8:00 & 10: a.m. [62.2%]
   Before 10:00 a.m. and noon [11.7%]
   Before noon and 5:00 p.m. [3.5%]
   After 5:00 p.m. [3.3%]

2. I am usually on campus...
   
   M. W. F [18.0%]
   Tu. Th. [4.1%]
   All weekdays [77.7%]
   Sat. Sun. [0.2%]

3. What is your normal means of transportation?
   
   Personal auto [76.6%]
   Carpool (*with one or more persons*) [6.6%]
   METRO [9.2%]
   Taxi [ ]
   Walk [6.2%]
   Other specify ___________________ [1.4%]

4. You usually come to TSU from...
   
   Home? [95.2%]
   Work? [4.8%]

Closest street intersection: ___________________ @ ___________________
5. You usually leave TSU headed for ...
   Home? [78.3%]
   Work? [21.7%]

Closest street intersection: ____________________ @ ____________________

6. When do you normally leave the campus?
   After 5:00 p.m. [20.1%]
   Between 3:00 & 5:00 p.m. [24.4%]
   Between noon and 3:00 p.m. [41.2%]
   Between 10 a.m. & noon [14.1%]
   Before 10:00 a.m. [ .2%]

7. Do you know what METRO bus lines serve TSU?
   Yes [39.2%]
   No [60.6%]

8. If you routinely travel by METRO, what busline(s) do you usually take (include all buses that make up your trip)?
   To TSU? ____________________
   From TSU? ____________________

9. While I am at TSU, I spend most of my time in ...
   Name building (s) MLK 3.0% / TECH 19.4%, GYM 4.5% / NABRIT 10.4%,
   [ ] Other specify EDU BLDG 28.4% / BELL 34.3%,
10. If you do not routinely use METRO, what are your reason(s)?

- Travel time too long
- No convenient bus line [17.9%]
- Personal safety concerns [10.4%]
- My other responsibilities require the use of a car [1.5%]
- I don’t find it appealing [1.5%]
- I’m afraid I’ll get lost
- Fares too high
- Buses are unreliable [31.3%]
- * Remainder no response

11. Approximately what does it cost you to operate your automobile each month?

| calculate here | Car note | $ ____________________ |
|               | Insurance | ______________________ |
|               | Gasoline  | ______________________ |
|               | Maintenance & repair | ______________________ |
|               | License & inspection / 12 | ______________________ |
|               | TSU Parking fee / _____ mos. | ______________________ |

Estimated monthly operating cost: $ ____________________

12. What kind of automobile do you drive?

- Make __________________ model __________ year __________
13. If on tomorrow you were told you could drive your car to the campus only four days a week, what would you do on the other day?

Take the bus [ 5.4%]
Carpool [37.8%]
Walk [21.6%]
Bicycle [ 5.4%]
Be absent [29.8%]
Other specify __________________ [  ]

14. Tell us a bit about yourself (check all that apply):

Undergraduate Student [  ]
Graduate Student [  ]
Full-time [  ]
Part-time [  ]

Age: 18 - 24 [ 30.9%]
25 - 34 [ 11.3%]
35 - 44 [ 5.4%]
45 - 54 [ 42.2%]
55 - 64 [ 4.6%]
over 65 [ 3.0%]

Gender: Male [  ]
Female [  ]
APPENDIX B
Pre Test Responses
(N=7)
raw scores in parenthesis

1. Public transit is more inconvenient than my personal automobile.
   - Strongly Agree: 29% (2)
   - Agree: 0%
   - No Opinion: 29% (2)
   - Disagree: 43% (3)
   - Strongly Disagree: 0%

2. Public Transit does not operate on time and is not reliable.
   - Strongly Agree: 0%
   - Agree: 0%
   - No Opinion: 14% (1)
   - Disagree: 57% (4)
   - Strongly Disagree: 29% (2)

3. I would be concerned for my safety as a regular rider on public transit.
   - Strongly Agree: 0%
   - Agree: 14% (1)
   - No Opinion: 14% (1)
   - Disagree: 57% (4)
   - Strongly Disagree: 14% (1)

4. People who ride buses are drunken, smelly and low-class.
   - Strongly Agree: 0%
   - Agree: 0%
   - No Opinion: 14% (1)
   - Disagree: 29% (2)
   - Strongly Disagree: 57% (4)

5. I have to get up too early if I use the bus regularly for transportation.
   - Strongly Agree: 29% (2)
   - Agree: 43% (3)
   - No Opinion: 0%
   - Disagree: 14% (1)
   - Strongly Disagree: 14% (1)

Note: May not add up due to rounding
6. Only poor people without cars ride the bus.

Strongly Agree - 0%
Agree - 0%
No Opinion - 29% (2)
Disagree - 14% (1)
Strongly Disagree - 57% (4)

7. Buses are always dirty.

Strongly Agree - 0%
Agree - 0%
No Opinion - 14% (1)
Disagree - 29% (2)
Strongly Disagree - 57% (4)

8. Bus drivers are rude, crude, and extremely discourteous.

Strongly Agree - 0%
Agree - 0%
No Opinion - 14% (1)
Disagree - 43% (3)
Strongly Disagree - 43% (3)

9. I don't ride the bus because I fear getting lost.

Strongly Agree - 0%
Agree - 14% (1)
No Opinion - 14% (1)
Disagree - 57% (4)
Strongly Disagree - 14% (1)

10. My trip would take too long on the bus.

Strongly Agree - 29% (2)
Agree - 29% (2)
No Opinion - 0%
Disagree - 43% (3)
Strongly Disagree - 0%

11. It is more expensive to ride the bus than to use my car.

Strongly Agree - 0%
Agree - 0%
No Opinion - 14% (1)
Disagree - 43% (3)
Strongly Disagree - 43% (3)
12. **Riding the bus would be bad for my image.**

   |                      |   
   |----------------------|---
   | Strongly Agree -     | 0% |
   | Agree -              | 0% |
   | No Opinion -         | 29% (2) |
   | Disagree -           | 14% (1) |
   | Strongly Disagree -  | 57% (4) |

13. **I may get lost if I have to transfer.**

   |                      |   
   |----------------------|---
   | Strongly Agree -     | 0% |
   | Agree -              | 14% (1) |
   | No Opinion -         | 0% |
   | Disagree -           | 57% (4) |
   | Strongly Disagree -  | 29% (2) |

14. **There is no bus line that can adequately serve my transportation needs.**

   |                      |   
   |----------------------|---
   | Strongly Agree -     | 0% |
   | Agree -              | 43% (3) |
   | No Opinion -         | 0% |
   | Disagree -           | 14% (1) |
   | Strongly Disagree -  | 43% (3) |
Post Test Responses
N=7
raw scores in parenthesis

1. Public transit is more convenient than my personal automobile.
   Strongly Agree - 0%
   Agree - 29% (2)
   No Opinion - 0%
   Disagree - 71% (5)
   Strongly Disagree - 0%

2. Public transit does not operate on time and is not reliable.
   Strongly Agree - 0%
   Agree - 0%
   No Opinion - 0%
   Disagree - 86% (6)
   Strongly Disagree - 14% (1)

3. If my personal auto was unavailable, I would ride the bus to TSU.
   Strongly Agree - 29% (2)
   Agree - 71% (5)
   No Opinion - 0%
   Disagree - 0%
   Strongly Disagree - 0%

4. Bus drivers are rude, crude and extremely discourteous.
   Strongly Agree - 0%
   Agree - 0%
   No Opinion - 0%
   Disagree - 71% (5)
   Strongly Disagree - 29% (2)

5. People who ride buses are drunken, smelly, and low-class.
   Strongly Agree - 0%
   Agree - 0%
   No Opinion - 14% (1)
   Disagree - 43% (3)
   Strongly Disagree - 43% (3)

Note: May not add due to rounding
6. **My trip took too long on the bus.**

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
<th>Count</th>
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<tbody>
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<td>(3)</td>
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<td>(1)</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>14%</td>
<td>(1)</td>
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</table>

7. **I have to get up too early if I use the bus regularly for transportation.**

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<td>0%</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>29%</td>
<td>(2)</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0%</td>
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</table>

8. **Overall, my experience on the bus was satisfactory.**

<table>
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<td>(1)</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

9. **Buses are always dirty.**

<table>
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<td>(6)</td>
</tr>
<tr>
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<td>(1)</td>
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</table>

10. **I had difficulty making transfers.**

<table>
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<td>(4)</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0%</td>
<td></td>
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</table>

11. **I was concerned for my safety.**

<table>
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<td>(2)</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>43%</td>
<td>(3)</td>
</tr>
</tbody>
</table>
12. The bus driver appeared to have an "attitude".

Strongly Agree - 0%
Agree - 0%
No Opinion - 29% (2)
Disagree - 29% (2)
Strongly Disagree - 43% (3)

13. Most of the passengers appeared headed for work or school.

Strongly Agree - 14% (1)
Agree - 43% (3)
No Opinion - 29% (2)
Disagree - 14% (1)
Strongly Disagree - 0%

14. Riding the bus was bad for my image.

Strongly Agree - 0%
Agree - 14% (1)
No Opinion - 0%
Disagree - 71% (5)
Strongly Disagree - 14% (1)

15. My bus(es) operated on schedule.

Strongly Agree - 14% (1)
Agree - 86% (6)
No Opinion - 0%
Disagree - 0%
Strongly Disagree - 0%

16. There is no bus line that can adequately serve my transportation needs.

Strongly Agree - 0%
Agree - 29% (2)
No Opinion - 14% (1)
Disagree - 14% (1)
Strongly Disagree - 43% (3)
APPENDIX C
During this academic year, how many times will you...

...Receive a parking ticket?
...Have your car towed?
...Run out of gas enroute to class?
...Get a traffic ticket?
...Be late because of a traffic jam?

Get on board METRO!

All routes lead to Texas Southern, via...
80 Dowling
42 Holman
68 Brays Bayou
28 Southmore
43 TSU/UH/Transit Center Shuttle

METRO tokens and monthly passes available in Student Life Center
For route and schedule information, call 635-4000
NO MATTER WHERE YOU START YOUR TRIP*...

METRO

GETS YOU THERE FROM HERE

CALL

635-4000

FOR ROUTE AND SCHEDULE INFORMATION

*OF COURSE, WITHIN THE METROPOLITAN Transit AUTHORITY OF HARRIS COUNTY SERVICE AREA

(Artwork by Heidi Lange)
WANTED

People who don't want to be broke, hassled and forever frustrated.

METRO

promises you cheap, hassle-free, relaxing transportation!

For route and schedule information, call

635-4000
When all is said and done, there are but two things which are universally respected throughout the world—Money and Power. In your quest to achieve both, here are some tips:

On Money...
Taking METRO to school or work every day saves you enough money each month to start your investments portfolio—or at the least, purchase a savings bond. This is especially true if you travel to school or work at a fixed location and remain there for a fixed number of hours each day. Just think—even if you do own a car—fewer gasoline purchases, no parking fees, cheaper auto insurance rates.

On Power...
Relaxing on your METRO ride in to school or work allows you time to read the newspaper, complete that homework on the laptop you purchased with your transportation savings, or pop on your earphones and fill your head with music or information that lifts your spirits and gets you ready for another dynamic day. Personal empowerment translates into success—the first stepping stone to power!
We got your number!

Make sure you got ours!

635-4000

for METRO routes and service.
Where do you want your money?

In your wallet?

Or...

Down the Drain?

635-4000

for METRO routes and information.
The 44-Acres Homes is making connections between high-tech and high fashion.

Metro is pleased to announce the extension of the 44-Acres Homes Route to include service to Willowbrook Mall and Compaq Computer. At last, folks who work at Compaq have an easy trip to the mall, Selon Lake Park & Ride, and Houston Community College Cypress Creek Campus. And, if that’s not enough, transfer to the 86-FM 1960 Circulator and take a quick trip to Greenspoint Mall. Service to Compaq and Willowbrook Mall will be provided on an hourly basis between 6:30 am and 11:00 p.m., Monday through Friday.

METRO
635-4000