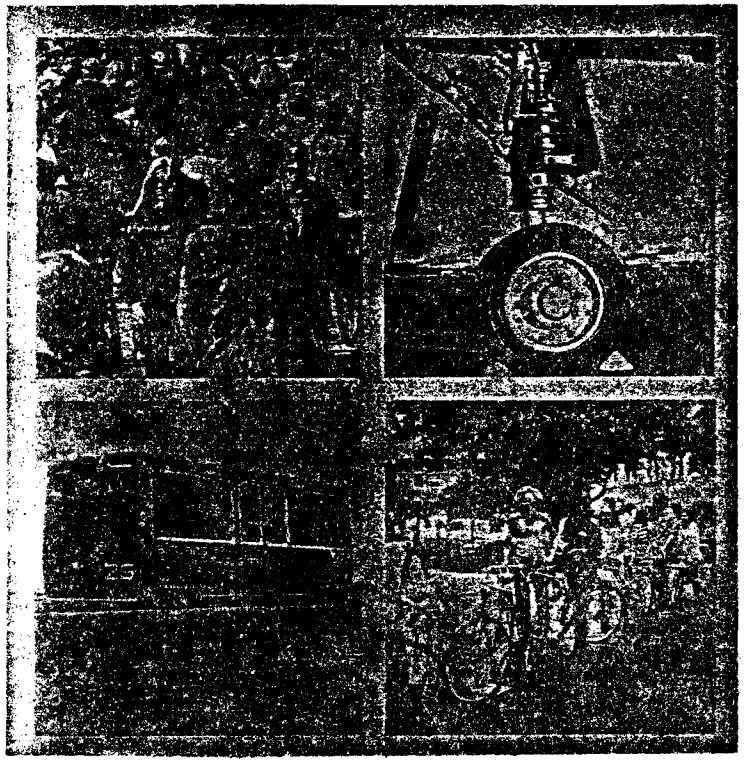
Research report 9

# DISSEMINATION OF INFORMATION TO INCREASE USE OF AUSTIN MASS TRANSIT: A PRELIMINARY STUDY



GENE BURD



OCTOBER 1973

COUNCIL FOR ADVANCED TRANSPORTATION STUDIES
THE UNIVERSITY OF TEXAS AT AUSTIN

# DISSEMINATION OF INFORMATION TO INCREASE USE OF AUSTIN MASS TRANSIT: A PRELIMINARY STUDY

in the area of Urban Transportation and Communication

by

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with the assistance of
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THE UNIVERSITY OF TEXAS AT AUSTIN

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ABSTRACT

This report is a study of the relationship of information to mass transit usage of the new Austin, Texas, city buses in the Summer of 1973 in the context of public discussion of an environmental crisis on air pollution and fuel shortages.

It includes a survey of efforts by cities to use information, education and persuasion to increase usage of mass transit; an observation on the traditional coverage of transportation news by mass media; and a brief account of the sparse and recent research on communications and transportation.

The focus on Texas cities and Austin is presented as an ultra-typical example of the urban transit crisis, where newer cities built around the auto have struggling mass transit systems seeking new customers to off-set subsidies.

A new fleet of Austin city buses in January 1973 with a newly revamped public operation and a new Customer Service Center provided an ideal "lab" for the study. The project was designed to test the use of the new center by exposing the general public to mass media content on its telephone number for bus routes, schedules and service to a major civic event; and to expose a selected Austin neighborhood to inter-personal (letter and phone) communication of the same content.

Results are reported in the volume of media content; a tally of phone calls to the Customer Service Center and the areas from which they came; and a small sample of neighborhood response revealed in a phone questionnaire, and some comparisons of inter-personal and mass communication.

It was found that the print media was most responsive to promotion of mass transit; that public phone calls to the transit offices increased; that total city bus ridership continued to increase in the study period; but that ridership on the line represented in part in the small neighborhood sample actually declined in the period, which included vacation-time.

Some recommendations are made on press coverage of transportation news; on general public education and the mass media; on research needs and transit strategies; on possible future projects on communications and transportation and potential support by local agencies and groups; and on ways to improve city bus service in Austin.

ACKNOWLEDGEMENTS

This report was made possible by a $3,000 grant to the Council for Advanced Transportation Studies (CATS) from the University of Texas Academic Development Funds for Small Proposals for Support of Multidisciplinary Research.

The University approved the funds in December 1972 and CATS authorized this mini-proposal in March 1973. The major part of the study was done in June, July and August 1973. The project was conducted and reported through the use of interdisciplinary personnel and with the aim of producing data immediately useful to the local community.

Limited staff, time and funds made the study largely exploratory, but it is hoped that it met the project sponsor's request that it "initiate multi-disciplinary transportation research to attract future outside support."

Appreciation is due to the University of Texas and the Council for Advanced Transportation Studies for their support of this project and their awareness of the importance of communications in transportation research.

Gratitude is also due to Dr. W. R. Hudson, Director of Research for CATS, and Bill Badger, Assistant Director; and to the CATS administrative staff, including Frank Bergman; and to Wayne Danielson, member of the CATS Executive Committee and Dean of the School of Communication.

Great credit is due Vijay Ganju, research assistant and Ph.D. candidate in the School of Communication, whose background in physics and his native India helped him bring a fresh synthesis to the project design. On both bike and bus, he gathered much of his material and he got new glimpses of Austin and America in his exposure to both communications and urban transit problems.

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Helpful University colleagues included Dr. Robert Kahan, Prof. James Colson, and Dr. Alan Scott, Journalism; Dr. William Mindak, Advertising; Dr. Shane Davies, Geography; Dr. Mark Alpert and Dr. Karl Henion, Marketing; Prof. Sandra Rosenbloom, Architecture and City and Regional Planning; and James Seymour, Research and Development Center for Teacher Education.

A special thanks goes to the Austin American-Statesman and its Editor Sam Wood, Cartoonist Ben Sargent, and Reporter Larry Besaw, for their enthusiastic support of the media exposure experiment.

Wright Williams, special University of Texas student, bus driver and free lance writer on mass transit and other topics, volunteered helpful ideas on the initial project, and helped with interviews during a break from his later work as a graduate student in psychology at Florida State University.

Thanks are also due to the hundreds of Austin residents who cooperated on interviews; telephone operators who took calls; city bus drivers who provided information; and librarians who helped with research.

And last, but certainly not least, my gratitude to Nan Blake, University instructor in photography, graphics and fine arts, whose insight and inspiration and hard work in the early stages of the project as a journalistic assistant was cut short when she had to leave the project after the tragic death of her only two brothers killed two weeks apart in separate auto accidents. If this report has any value to increase understanding and use of mass transit in cities, it is dedicated to Nan and her family.

Gene Burd
Austin, Texas
September 14, 1973

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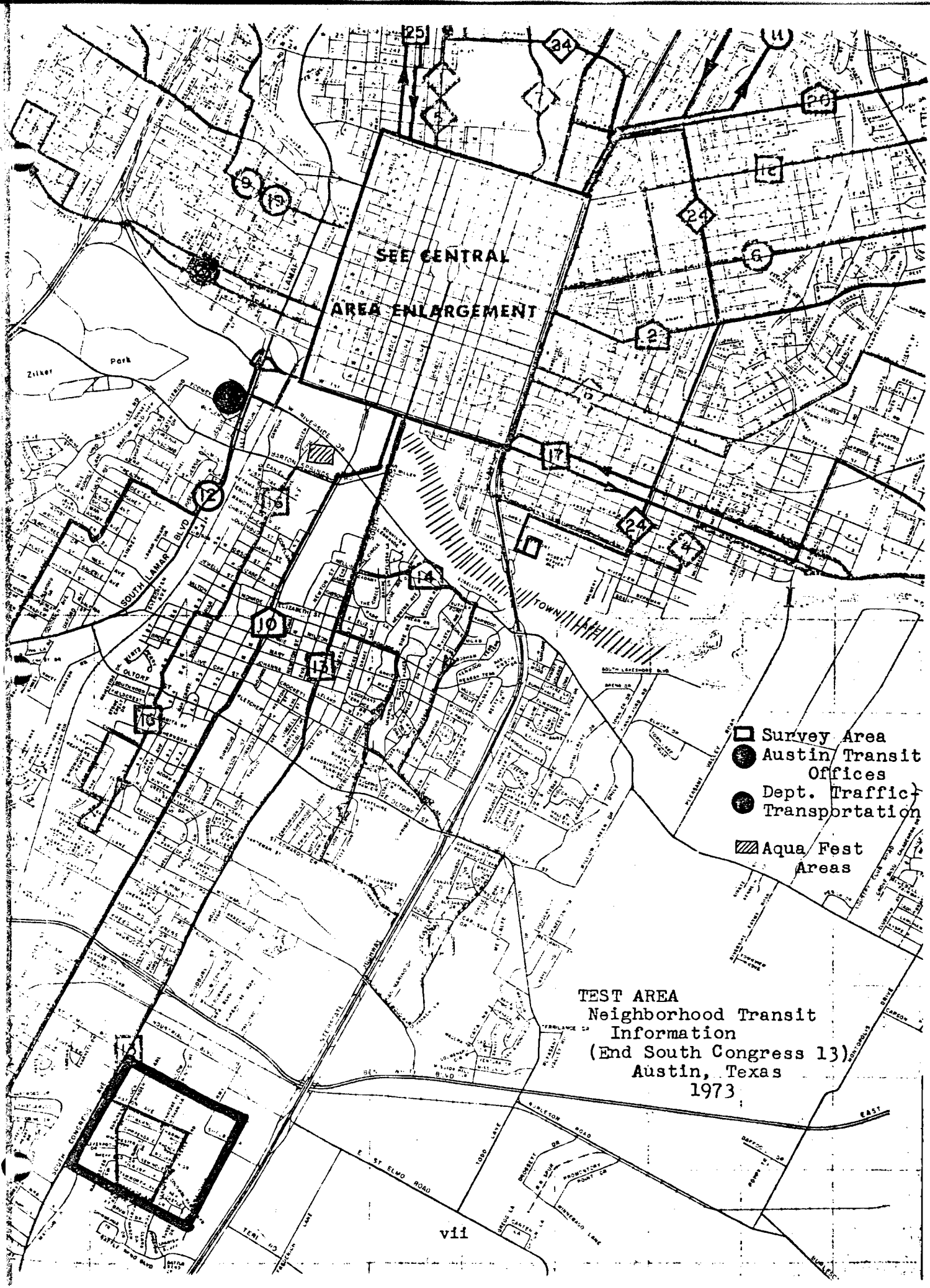
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Austin, Texas
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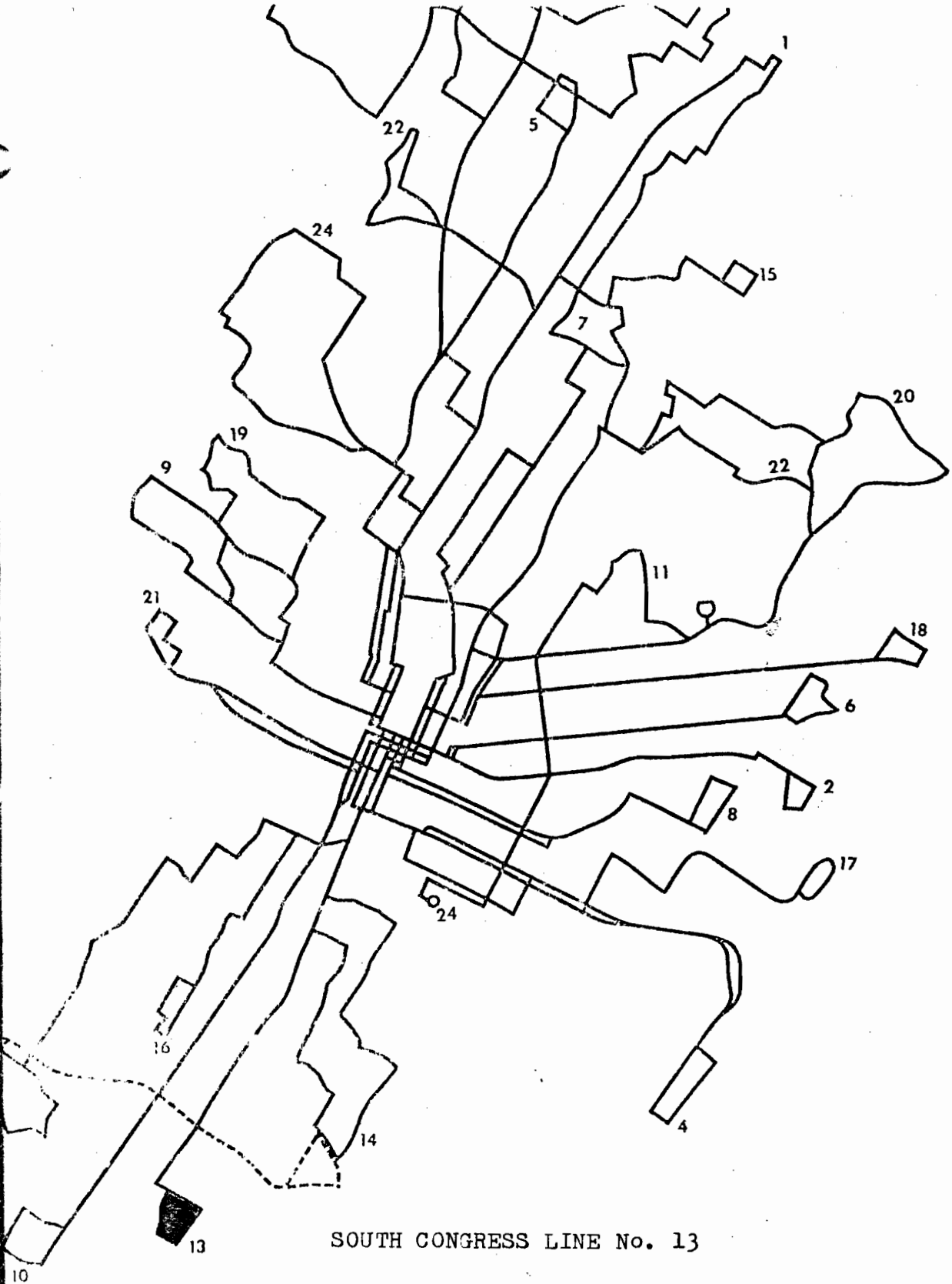



SOUTH CONGRESS LINE No. 13

LEGEND:

NEW ROUTES

FUTURE ROUTE (JANUARY, 1974)

24 ROUTE NUMBER

ROUTE COVERAGE

# AUSTIN TRANSIT SYSTEM ROUTES AND COVERAGE JANUARY 1973

AUSTIN TRANSIT STUDY

AUSTIN, TEXAS

General Problem:

Mass Transit, Environmental Crisis and the Mass Media

In the Summer of 1973, news of mass transit found its way to the front pages and prime-time TV news, as fuel shortages, air pollution and traffic congestion alarmed the world.

Japanese cabinet officers used trains instead of autos to observe World Environmental Day. Santiago, Chile, was crippled by transit strikes. Rome followed 150 other European cities and banned cars from parts of downtown. London planned to eliminate free parking by 1981 and reduce parking meters to force use of mass transit. Swedish planners urged restricted downtown parking in favor of parking near fringe areas near mass transit lines.

In the U.S., the nation's largest government-operated transit systems in 30 cities struggled against dependence on subsidy, and the National League of Cities asked the federal government to guarantee fuel to run public transit and reduce pollution and gas for cars. Since 1954, 260 U.S. transit systems had gone out of business, but by early March 1973, the American Transit Association expected the mass transit decline to halt for the first year since World War II.

Some cities longed nostalgically for abandoned electric street cars to save fuel and clear the air. Less than 500 such cars remained in New Orleans, San Francisco, Philadelphia, Newark, Boston and Pittsburgh, as some of those cities and other (like Miami, Atlanta, Honolulu and Washington) expanded rapid transit hoping it would not decline like the street cars.

A spirit of alarmism seemed to prevail on mass transit. In Covington, Ky., after a bus rider mail survey, 80 bus drivers were sent to Northern Kentucky State College for a special course in courtesy. In San Francisco, a municipal railway driver spent $250 of his own to print 6,000 schedules for bus, trolley and street car lines, and although he was temporarily suspended, he was later encouraged to go into management.

Ridership increased on inter-city buses such as Greyhound and Trailways as public awareness of safety, congestion, fuel and pollution crises increased. Hollywood celebrities added their advertising testimonials and journalists

took bus rides to attract riders other than youth and aged. Special passes and hotel and restaurant discounts were offered riders. Some 23,000 such buses serve 13,500 communities, according to the National Association of Motor Bus Owners.

Amtrak used new marketing methods to promote its use: club car entertainment, regional menus, passenger service representatives (like the airline stewardess); and rail cruises, stop-offs for sight-seeing, and tie-ins to car rentals, hotels, airlines and travel agencies.

News of transportation took on a new awareness of the environment. New town planners insisted on minimum use of autos. Longtime car critic and consumer advocate Ralph Nader renewed his plea to the Interstate Commerce Commission to prohibit smoking on inter-city buses. An eco-minded Union City, N.J., woman working in Manhattan, sold her car and for a year experimented with bus transit. In Sacramento, California, the state deputy chief of mass transit, walked to work from downtown to save on auto gas, payments and repairs. The last remnants of the anti-war movement had begun to point to the use of 3 million gallons of gas daily by the Air Force to bomb Cambodia; and even editorialists asked if the fuel used for the "Indianapolis 500" races (and crashes) was a wise usage.

Perhaps most significantly, the once-silent suburban middle class majority realized that urban auto emissions had crossed municipal boundaries; that oil from highways was flowing into once-clear suburban streams; that the freeways that once got them into the central city and cut up slums and Black inner city neighborhoods, were cutting up green suburbia space, and that noise, fumes and visual pollution were high costs for the speed and convenience of the auto.

The Highway Trust Fund was tapped, and President Nixon not only personally urged drivers to slow down to save fuel, but some in his administration sympathized with mass transit advocates, who urged a 30% increase in mass transit funds and a 4% decrease in highway outlays. Also, Congress sought to divert highway funds for urban mass transit projects in 1974-75. Metropolitan areas had the local option to tap an urban share of federal highway money for mass transit, and cities could use general treasury funds to pay for rail or bus projects.

The ultimate challenge to the auto-dominated transportation system came in mid-June 1973 when the Environmental Protection Agency (EPA) announced that since states had not moved fast enough to enforce the 1970 Clean Air Act,

the EPA would consider a plan to: ration gas, restrict downtown parking, assure expressway lanes for buses and car pools, freeze new downtown parking facilities, and enforce installation of auto pollution devices.

Although the press, business, industry, and local governments complained in unison, there is evidence that cities are rushing to inform citizens about existing mass transit, and are eager to experiment with and market new systems in which information and promotion are critical to transit acceptance and usage.

Many of these experiements have been examined by the Urban Institute for the Urban Mass Transit Administration. They include an array of techniques and approaches to transit between the car and traditional mass transit--called para-transit, which is responsive to the nature of the community, its communications habits and travel inclinations, and its minority transit needs, as opposed to mass transit alone.

Some of the methods include personal rapid transit (PRT), car pools, dial-a-bus, mini-buses, shopper, subscription and charter buses, car rentals, expressway bus lanes, fare cuts and no-fares, and even sympathy to the use of jitneys. The success of many of them depends on definition of the specialized community of origin, and a responsive communications network to link it to destination.

In Topeka, Kansas, blind riders of the Intracity Transit Bus System now have schedules in braille provided by service clubs and the American Transit Corporation. In Atlantic City and Pittsburgh, Blacks handicapped by economics and isolation hail jitneys; and in Los Angeles with its smog and more than one car for every two residents, the city's new Black mayor, Tom Bradley, decided mass transit and related air pollution control were top priorities.

St. Louis has requested federal funds to help finance mini-buses for the elderly, after suburban University City's city council approved pay for a new elderly min-bus (with a rear door for wheelchairs) to bolster an existing 32-passenger-service bus which takes the aged to churches, banks, doctors, libraries, concerts, and theaters under sponsorship of a Jewish community service program, which includes a food co-op, legal and social services, a tenant-landlord complaint bureau, and a newspaper and information desk. A similar program operates in Concord, Mass., and in numerous small towns where aged, on fixed incomes and socially isolated, are provided free bus service.

A variety of experiments on subsidized mass transit emerges. Fares have been cut in San Diego, Cincinnati and Denver. The first federally-funded no-fare bus service in the country in Amherst, Mass., near the University of Massachusetts, cut gas consumption by 37%; reduced congestion; and 40% of its riders formerly drove. (An amendment to the recent federal mass transit subsidies bill would authorize $40 million for two years to set up more free transit experiments in selected cities).

Seattle and Dayton, Ohio are offering free mass transit service in downtown with the hope of reducing cars and air pollution and increasing transit usage. Pittsburgh plans to sell a yearly bus pass for $100 with 10-cent individual fares instead of 40 cents. New York continues its now legendary battle against illegal downtown parking to clear space for surface mass transit, and subsidized Chicago mass transit struggles despite highly heralded and publicized median transit strips along expressways and an ambitious metropolitan transit proposal bogged down in the traditional suburbs vs. central city animosity. In Chicago's suburban Evanston, the local bus company is in demise despite high residential density and a large Black and aged population. In June, the Chicago Transit Authority experimented with its first free-ride offer on the city's elevated extension into Evanston. Ridership increased from 400 to 2,343 the first day of that offer and 2,763 the second day.

Cities may be assuming mobility is a "fifth freedom" to be guaranteed by the government like free elevators in a skyscraper, to use the analogy of Donald Valtman, assistant general manager for the Metropolitan Atlanta Rapid Transit Authority, which came under public ownership in 1972, and by use of a special sales tax cut fares from 40 to 15 cents and offered free transfers. In addition, the Atlanta bus system offered more runs, new and special suburban routes, new air conditioned multi-colored buses, shelters and a new public image. Communications-wise, drivers got 2-way radios and an extensive 24-hour-a-day customer complaint bureau handled 2,000 questions per day. The new approach is credited with new transit use. Ridership went up 30%, mostly among white males earning more than $20,000 a year, who had abandoned a transit system which Blacks had pressured for improvement. There are now plans for 50 miles of rapid rail transit.

In Minneapolic-St. Paul, with a lower percentage of Blacks, but with one of the highest percentage of aged, public assumption of transit ownership in 1970 brought heated shelters, air conditioning, better bus information, posted

bus stops, mini-buses downtown, and aggressive marketing and media campaigns. Riders were up 6.5% in 1973 over 1972 which was up 8.8% over 1971, in contrast to national bus ridership down 6% annually.

In popular Denver, now with a greater percentage of cars than Los Angeles, and with its own smog, the Denver transit system went to public ownership in 1971 and brought riders lower fares (reduced rates for handicapped), increased extended and express service, and widespread use of marketing in media and advertising to increase public awareness of transit.

Transit information and persuasion included colorful and detailed maps and schedules, flashy newspaper "house ads", "Nickel Day" for downtown promotion, literature distributed on street corners, colored bus flags to identify routes, and bus headlights turned on for safety and visibility. Most significantly, a telephone information center to answer personal questions about mass transit answered 1,800 calls per day with five recruited, trained and hired specialists both in and out of the information center which separated administrative from customer calls. The customer phone number was publicized in the media.

According to H.P. Ishmael, resident manager of Denver Metro Transit, the aim is for "orienting the system completely toward the customer, by finding out what he wants, giving it to him and telling him about it." (Denver is now the first large city to plan a personal rapid transit system (PRT) which is expected to cover 100 miles with 58 stations by 1983. It already has voter approval.)

Public acceptance is a key to usage of either existing or new transit systems, mass or personal. In Morgantown, West Va., home of West Virginia University, a $13 million, 2.2-mile PRT system connects the campus downtown with the school's medical complex across town, with the aim of replacing university shuttle buses, reducing congestion and pollution because of being a rail network. The "father" of the highly publicized experiment, Dr. Samy E. G. Elias, chairman of the industrial engineering department, and later assistant to the university president, had done consultative work in applying computer science to scheduling buses and drivers in St. Louis and scheduling and placing police in New York subways to patrol crime areas. Despite some problems in the Morgantown experiment, Dr. Elias wrote the author August 15:

> "I think that if transit systems rely on mass media to disseminate their information for them the probability of the public being persuaded to use mass transit is not too good. If the public is to be persuaded to use mass transit, those responsible for the systems must do their persuading in terms of sound, well-developed marketing programs. Secondly, regardless of how good a marketing program you have, the transit system must warrant the praise which is being disseminated through the marketing program."

A new, fixed rail system, the Bay Area Rapid Transit System (BART) in the San Francisco-Oakland area, opened May 28, but not as many riders as hoped for have responded, and technical and management problems have arisen. Educating riders to a huge rail system may take years. (Foreign travellers to Europe seek out the challenge of "How to Get There" in a transit booklet of the London Transport Authority; in the bi-lingual transit guides in Amsterdam; and in the electric, push-button transit bulletin-board of Paris Metro.)

In the San Francisco area with its new rail transit system, the Metro Transportation Commission has planned toll-free information booths to tell riders how to get to where they want to go, and a guidebook on fares and schedules called "Ride On". Traffic officials have also had some success in getting commuters to ride buses for their convenience, comfort and economy; and the Golden Gate Bridge District allocated $15,000 to advertise the advantages of public transit over private autos, using ads about the "Los Angeles flu"--the auto-related "disease" of congestion and pollution. Cars approaching the bay bridges with three or more occupants are given reduced bridge tolls.

Such "car pools" are a form of mass transit in which the key to success is identification of the area of residence and work and communication of this information with some pay-off and reward for using this transit method. Private businesses have experimented with the idea. In St. Paul, Minn., 3-M company employees operate vans carrying 12 passengers for a monthly fee and in St. Louis, McDonnell Douglas Corporation reserves lots for car poolers and the number of occupants per car has doubled to 2.8; and one Washington mortgage banking firm suggested a book of trading stamps each month for car pool riders.

Government also supports the car pool. Oregon Senator Wendell Wyatt (who walks to work) is sponsoring a U.S. Senate bill to give car poolers an income tax deduction. A Highway Administration study indicates that the independence of driving a car may be sacrificed if parking rates are cheaper

and if lots are closer to destination. The Department of Transportation and other Washington agencies are giving preferred parking to car poolers. The Connecticut Department of Transportation has developed a computer matching service for public and private employers to use, and 45 state agencies are using it. The Council of Governments has plans for car pooling in which persons can call a central number and be given a list of others in their neighborhood going to the same or similar destinations.

There is also indication that government may use its power to control traffic to take away the advantage cars have had over buses. More cities are using computerized traffic control to favor buses over other vehicles. Exclusive bus lanes have been tried or are being considered in New Jersey, San Francisco-Oakland, Seattle, Los Angeles, Pittsburgh, Chicago, Detroit, and Washington D. C. Miami has plans for non-stop, expressway buses, which may be permitted to change red lights to green. In Washington, preference and priority to bus lanes has increased bus ridership 400% from Virginia suburbs into Washington since it was begun in 1969, according to the Federal Highway Administration. In Los Angeles, bus patronage picked up 30% on the San Bernardino Freeway after express bus lanes were opened up in January 1973.

Computerized information is also being used to facilitate better use of the auto and mini-buses. New York state has developed electronic message boards flashing traffic conditions and advice to motorists on expressways, and radio-helicopter traffic reports once known only to Los Angeles, now are commonplace in the larger cities. However, it is the spreading use of the telephone and computer for the dial-a-bus (call-a-ride and tele-bus) which merges transportation and communication and personal and mass transit.

The dial-a-bus phenomenon utilizes the switchboard, 2-way radio, maps and computer punching, and offers customers door-to-door flexibility, (especially valued by the handicapped and aged), and shared costs and shared riders less marked with the taxi. Such services are usually government-sponsored and operate without fixed routes.

Dial-a-bus is being introduced to Jackson, Miss., Jacksonville, Fla., Southeast Washington D. C., and Lafayette, Ind. Ann Arbor, Mich. began a pilot project two years ago by William Drake, professor of urban planning at the University of Michigan, and there are plans to expand. Other countries have used the system. The oldest dial-a-bus system is credited by Bay Bridge, Ont., a suburb near Toronto, where it operates 6 days a week, 20 hours per day,

with the average trip 6.7 miles and average fare 26.5¢. Ninety per cent of the 14,000 residents live in single family dwellings, but 70% have tried dial-a-ride. In Regina, Saskatchewan, even 3-year-olds ride to nursery schools. Both Canadian systems feed commuter bus or railroad terminals.

American suburban or interurban areas have found low density no special disadvantage. In the Los Angeles area, La Mirada with 32,000 population has used the system with passenger vans holding 12-18. It has also been used in La Habra, Calif. Batavia, N.W., in between Buffalo and Rochester, the service began in 1971, with maximum cost of rides at 60¢. In the Philadelphia suburb of Haddonfield, N.J., the government-funded dial-a-ride program involves: a dozen radio-dispatched, 17-passenger buses operating 24-hours a day, over 5.5 square miles, serving 25,000 residents with 500 rides per day with a waiting time of 10-15 minutes and travel time averaging 10 minutes, with fares from 40 to 60 cents.

A clue that low density is not a hindrance as it is to fixed transit systems depending on high urban density is indicated by the most recent dial-a-bus system in Adelaide, S. Australia, begun in June and covering 100 square miles, with buses reaching callers' doors in not more than a half hour, with maximum fares of $1.42 for 15 miles or more to minimum fares of 49 cents for up to two miles.

In wealthy Beverly Hills, Calif., air-conditioned "mini-limousines" with telephones are being used as a compromise between exclusive Cadillacs and semi-communal taxis. In Hagen, Germany, a "cabin taxi" (called "Cat") has been developed as a balance between private and public transit.

## Mass Media Coverage of Transportation News

The fact that much recent coverage of mass transit and other transportation news is in the context of crisis (pollution, fuel shortages, congestion etc.) fits the tradition of journalistic reporting of transportation news in the framework of disaster!

The press has not usually covered transportation as an essential urban function or assumed an educational responsibility for informing society about transportation *per se*. Rather transit news has come under the "misery beat" of the police run and includes accidents and deaths, and ironically, "human interest" stories. "How many dead tells the story", is an old newsroom axiom

on news values and the end of the world in a massive traffic accident would be the proper and fitting story for traditional journalism.

Perhaps the leading journalism reporting text in American since 1932, Interpretative Reporting by Curtis MacDougall, lists coverage of transportation under "Accidents, Disasters", a sub-section under coverage of "Illness and Death". MacDougall says that "Part of the price which modern man pays for the benefits of a highly industrialized society is the danger he runs of sudden, violent injury or death." He cites auto accidents, wrecks of common carriers, fires and explosions as story material, but he urges perspective by journalists by advising that "The media of communication can help the public understand why a certain type of disaster is prevalent in a community, area, state, or nation by 'digging deeper' than the facts related to a specific news event."

Journalists trying to explain the mass transit crisis may develop into environmental specialists, but special transportation journalists with a professional approach are rare. In some big cities, frightened big city dailies, fearing urban decentralization and loss of shoppers to the suburbs, have assigned writers to cover subsidies for mass transit as a "public service", with civic pride and boosterism implicitly related to the salvation of the newspaper's advertising and circulation base downtown.

The bulk of transportation coverage has been in travel sections with stories on places where the autos and airlines go; automotive editor columns and special auto supplements with tips on how to drive safely; and accident reports by general assignment police beat reporters. Holiday death tolls are treated much like weekend football scores, and yearly polls. Space is practically always dictated by the prominence of the persons killed, and TV coverage is even more receptive to the spectacular crash. Much accident news is considered dull filler, fit only for the obituary page.

New cub reporters get their training and learn city streets by reporting accidents before they "graduate" to more important news. The press often does news series on traffic, usually when there is downtown congestion (and newspaper delivery trucks cannot get out); when children are killed at school crossings; when suburban commuters (often journalism personnel) face expressway jams, commuter train strikes, or when they cannot see the new downtown skyscrapers for smog, or when cloverleafs cut into suburban patios and golf courses. Controversy over expressway routes (again disaster and crisis) creates news, as do alarmist remarks by transit experts and spectacular utopian transit plans.

There is no conspiracy by the press on covering transportation news. The mass media have simply not been critical of a transportation system which grew with the country (as with the railroads) or which built the cities (as with the auto). Some critics have suggested that the media have been apologists for the auto industry because of the huge volume of advertisements for cars, and have noted that the critical anti-auto literature has come from the specialized magazines and book markets with less of a vested interest in mass society, which mass culture and mass media reflect and reinforce. Ralph Nader's inital access to the media came through the Nation magazine, and only to the mass media after news that private detectives from the auto industry had trailed him in an effort to discredit his auto-safety crusade, which eventually generated the consumer movement.

The consequences of a highly mobilized society were not contemplated by the mass media as so-called auto "accidents" became news events, without being treated as implicit or planned social write-offs for the sake of freedom and speed. The announcement by the National Transportation Safety Board that 60,275 persons were killed from transportation accidents in 1972 was mere newspaper filler, as was the report by the National Highway Traffic Administration in August that 28,000 of those Americans killed in traffic were in alcohol-related situations, and those deaths are 10,000 more than homicides in the U.S. By early 1974, two million Americans will have been killed by autos.

In a few words, mass culture is inseparable from the auto as the dominant form of transit, and this institutional tie of mass media, to social and physical mobility as the "good life"; to privacy, isolation, individuality, escape, speed, and the pursuit of alone-ness, and to social status and the sexual extension of the body in the form of the auto, all make it difficult and unlikely that the mass media could or would be critical or an educational force on transportation alternatives. From conception to death; from drive-in churches to drive-in mortuaries; from fender benders to funeral processions, and from Indianapolis to insurance agencies, the auto is inseparable from the nature of the society. Add to this, the space and time the media provide in advertising to sell the auto or gas and the society which produced them and uses six million barrels of oil a day to provide auto gas.

The Television Bureau of American Advertising reports that in 1972, oil companies alone spent $112,370,000 on TV ads alone. Shell spent $21,446.300. Texaco spent $15,101,400. Standard spent $10,388,400. And despite information

in news columns that warned of fuel shortages, pollution and traffic jams, the nation's automakers in May reported car sales reached an all-time high in the history of the automobile --907,304 for May alone!

Former U.S. Senator Eugene McCarthy agrees with many of the current criticisms of autos and the cures prescribed, and even suggests regulation of auto advertising. In the October 8, 1973, Nation, he wrote that "We Can't Afford Our Cars", and said "Editors and columnists express great distress over the fact that every four years more than $50 million is spent on Presidential campaigns, but they see little harm in auto industry advertising of more than $900 million a year."

## Communications Research on Mass Transit

It is now much in vogue to publicize and talk about the transit crisis and researchers are beginning to rush to find means and methods to get people to use mass transit. Recent research is sparse but much is emerging in roughly three categories: persuasion and marketing techniques, information and educational programs, and the relation of communication to transportation.

While urban mass transit research projects are increasing, they have usually been about new systems and equipment. "It is only rarely that one encounters concern with a crucial problem facing the development of mass transit, namely, the encouragement of patronage through the application of marketing techniques", according to Laurence P. Feldman, marketing professor at the University of Illinois, Chicago, in his study of "Behavioral Factors in The Marketing of Urban Mass Transit". He suggests that marketing programs might be preferable to fiat and coercion in public policy on urban transit problems.

The Urban Mass Transit Administration is seeking "to determine the best means of using advertising and promotional activity to increase the public use of mass transit service by determining consumer transit attitudes and motivation concerning the use of public mass transit".

A recent book on Action Plans for Improvements in Transportation Systems in Large U.S. Metropolitan Areas: A Generalized Public Transit Marketing Policy recommends creation of transit community relations organization to improve marketing of public transit and new concepts of passenger direction and transit information to give urban transit a fresh image. In the U.S., the image of mass transit is that of restricted, socialized, subsidized service for

minorities (the poor, aged, and racial groups) in high density, central city areas; while low density suburbia is for autos and middle class whites.

Special studies of Communications Technology for Urban Improvement conducted by the National Academy of Engineering urged in June 1971 that telecommunications be used to implement computerized dispatch and control and automatic monitoring of vehicle location and passenger status. Richard Harnes of the University of Washington examines the effects of telecommunications advances on urban growth patterns and urban travel demands in Communications Innovations, Urban Form and Travel Demand; and David W. Jones Jr. of the Department of Communication at Stanford University, has investigated The Potential of Communication as Substitute for Urban Travel.

Study of social behavior on mass transit has utilized participant observer techniques, both planned and unplanned. One is a Minnesota Out-state Transit Study by Cosmis Corporation and General Analytics; another is Toward a Sociology of Public Transit, a study by Morris Davis and Sol Levine.

At the University of Texas at Austin, Shane Davies, Mark Alpert and Ronald Hudson in the respective fields of geography, marketing and civil engineering, are developing a method for evaluating the relative importance of various transportation features attractive to key passenger groups in a study of Human Response In The Evaluation of Modal Choice Decisions. In a preliminary observation they pointed out that:

> "...Far too often we have designed technically advanced, high density transportation modes, without asking in advance whether the features they embodied were those sought by significant groups of potential riders. Moreover, modifications to existing modes have often considered more the needs of the supplier of transportation than those of the presumed consumer. Consequently, usage has been disappointing."

Davies suggests that transit design come after attitudes are detected and incorporate what riders want. The study is also concerned with differences in attitudes of non-users and how to attract those people to transit.

A possible model for community participation in transit routes is being developed by the Metropolitan Council of the Minneapolis-St. Paul Twin Cities, where citizen forums, polls, and questionnaires are being used by government agencies to get consumer-citizen input before transit decisions in the Northtown Corridor Study. The idea is to detect local needs and concerns first instead of selecting routes and then trying to sell the decisions to citizens.

One of the most extensive projects for developing and testing the effectiveness of information, advertising and promotion to increase mass transit ridership was a 1968 Urban Mass Transit Demonstration Project in Pittsburgh, Pa., sponsored by UMTA, the Port Authority of Allegheny County, the advertising agency of Feldman, Kahn and Sutton Inc., and the Transportation Institute at Carnegie-Mellon Institute.

In a period of about a year, they sampled callers to the transit complaint switchboards to detect frequency of use, why callers were not using schedules, destination and purpose of trips and complaints in general. They surveyed attitudes on mass transit and gathered data on age, sex and income of riders.

They used newspaper ads, radio and TV commercials, employee payroll inserts pointing out that mass transit was convenient, comfortable and socially acceptable. Media expenditures alone in the project cost $139,464. Also, a neighborhood map was produced, distributed and promoted at a cost of $7,594. The color map was distributed in a local weekly newspaper which ran an ad inviting readers to call the transit offices for more copies. In addition, a transit map and guide for the whole system costing $13,000 was distributed with newspaper coupons mailable to transit headquarters for more copies.

The study found that:

(1) Heavy rush hour transit users rather than potential transit users were being served by the transit telephone complaint service. Of 15,000 call-ins in a week, only 8,600 were different callers, and most frequent callers already had average or better than average transit service. Eighty per cent of the calls related to times and schedules and 78% of those already had timetables.

(2) Advertising of transit service did not increase riders or improved attitudes toward transit, and was considered a "poor investment". Trial riders are very critical, they found, and suggested "If advertising can be joined with service improvements, results (ridership) are certain to improve."

(3) Ridership was negatively affected by unanticipated and uncontrollable variables in the study period (civil disorders, work stoppages, influenza, discussions of fare increases and exact fare requirements).

(4) The system-wide transit guide was well received but found no reliable measurement of a ridership increase because of it. They did find that an increase in ridership (3.5% in off-peak hours) resulted as a direct result of improving transit information through the distribution of the user-oriented transit map in a selected suburban neighborhood. Also, the transit authorities recovered the cost of the map in 26 weeks of service; and public service desks now use the map for local distribution.

In "A Statistical Evaluation of Transit Promotion" in Pittsburgh, Robert C. Blattberg and Samuel R. Stivers developed a mathematical model for testing the effect of an advertising campaign; and they suggested that different models might be developed for different ethnic groups using public transit.

In Chicago, Feldman found that measurable behavioral variables play a role in transit modal choice where a choice exists. He interviewed drivers and riders in a northwest Chicago neighborhood having equal access to an expressway, a long-established suburban commuter rail line, and a new city rapid transit median strip in the expressway leading to the central business district of the central city.

He studies demographic and trip characteristics and got information on patronage motives, user image and social interaction. He found that none of the respondents, who were drivers, switched to the new mass transit service, but its new riders were former mass transit riders of other available facilities. Feldman suggests that the image of transportation modes can be changed, but says there is need for more research on how such changes could cause drivers to use transportation alternatives and incorporate and adopt them into their lifestyle. He observes that "social influence plays the same kind of role in the decision to use a transportation mode as the adoption of other consumer products."

Special Study Area:

Texas and Austin Urban Setting

Generalizations about regional culture are especially suspect in an age when communications and transportation make political boundaries less significant, but the Texas geography and social context provide an ideal setting for examining the future of mass transit in the growing Southwest cities built around the automobile and dependent upon it.

Although most Texans live in urbanized areas, the state still has the physical (and psychological) luxury of space, and a jealous pride in isolation and escape from urban problems. An October 10, 1973, Wall Street Journal advertisement by the Austin Economic Development Council urged businesses to "Leave Your Problems Behind, Try Austin, Texas." Texas Ernest Tubb, in his "Texas Troubadour", song says New Yorkers "sure could use some clean Texas air", and comments:

> "My home state of Texas has been good to me.
> Her wide open spaces treat me fair.
> The girls are so much prettier down in Texas.
> They don't breathe that New York City polluted air."

Texas is home of a culture which fits the automobile as the dominant means of transit: the optimistic myth of freedom and independence, the belief that there is unlimited space and resources to develop, and decentralized, relatively low density cities which reinforce those notions and discourage development or use of mass transit. Add to this the Texan's political practicality, skepticism of subsidies and federal interference with "state's rights" and local responsibility, and a cautious, fiscally conservative attitude in government. Add further the Texan's priority on status and rapid physical and social mobility, and the big, heavy, high-horse-powered auto replaces the horse in Marlboro and machismo country.

The Texan's tie to the auto as status is perhaps indicated by a survey of the 50 states and their quality of life by John Berendt in the November 1972 Lifestyle magazine of which he is editor. He ranked the states on data found in the U.S. Statistical Abstracts, Ford Foundation STudies, U.S. Department of Labor and the Department of Health, Education and Welfare.

Berendt found that Texas ranked 41st over-all, with sub-rankings of civic affairs (46); culture (40); health and security (34); and wealth (29); and the two highest Texas rankings in any category was 8th for number of symphony orchestras (22) in the culture category; and 10th in registration of new Cadillacs and Lincolns, 175 per 100,000 population, in the wealth category.

Another possible index of the high value put on the auto in Texas is indicated by the strong state reaction to the EPA rulings on autos. One San Antonio Chamber of Commerce official called the EPS "idiotic". Texas Rep. Bob Casey and the Houston Chronicle called the EPA a "monster" as the EPA ordered Houston area public and private employers to provide incentives for

workers to use mass transit and car pools with computerized techniques, and asked for special traffic lanes for such cars and buses and for possible gas rationing--all to enforce the federal Clean Air Act. Although one downtown Houston parking lot expected parking increases because of car pools and the state highway commissioner offered to help pay for such exclusive freeway bus lanes, the Chronicle said it was "Time to Rein in EPA" and Houston Mayor Louis Welch complained to President Nixon. Nearby Beaumont Mayor Bernis Sadler called the EPA a "dictator group".

The Texas Air Control Board said the auto regulation plans were impractical, defective, unreasonable and federal meddling in the state's business, and the Board sought an injunction via a law suit, with the support of the Governor, Lt. Governor and other state officials.

(Some possible clues to the serious nature of Texas pollution control and enforcement occurred in early September when the public relations director of the Board was charged with an extortion plot against state and federal air pollution officials, when a letter allegedly threatened to reveal details on an accusation that EPA research grants had been used to influence Texas Air Control Board members to EPA's favor.)

Restrictions on autos and development of mass transit in Texas face a tough fight in Texas. On July 12, 1973, Associated Press writer Robert E. Ford, writing on the EPA orders noted that the EPA "wants controls which will stop construction of shopping centers, stadiums, airports, highways and amusement facilities unless it is certain that the resulting traffic will not pollute the air." The Astrodome, Six Flags and Metroplex notwithstanding, Ford notes:

> "The EPA had better take lessons in guerilla warfare. If you ask a Texan which he loves the most--his car or his wife--he'll have to stop a minute and think. He may fight you for his car...The EPA just doesn't understand the Texan's emotional hangup with his automobile. It might be stronger than the early-day cowboy's affection for his horse."

Perhaps it's more poetry than social science, but Dallas-Fort Worth did get the EPA to scrap its original requirement of permits for all new parking facilities, which might have discouraged use of buses and car pools to get downtown. Austin escaped any restrictions on additional downtown parking facilities, requirements for inspection standards, special bus traffic lanes, gas rationing or emission equipment. The Austin American-Statesman commented that Austin "admittedly got off light" meaning Austin "has not yet reached the point where tough rules are in order."

There are however numerous efforts in Texas cities to lessen dependence on autos and to increase use of mass transit. Fort Worth is using multi-media to teach youth to use city buses. San Antonio's Lutheran General Hospital offers free pick-up service to emergency patients in the ghetto if the family car is in use. Dallas has used advertising agencies to encourage bus rides to sports stadia, downtown and for sightseeing. Display ads, door-knob information packets and "Bingo-Wingo" no-fare prizes have been offered under Braniff International sponsorship. By August 1973, a 3 1/2 year decline in Dallas bus ridership showed signs of reversing itself as patronage went up for a second consecutive month, with a 2.5% increase over August 1972.

Houston has made enthusiastic efforts to promote the carpool in that auto-dominated city. On June 25, Houston's Mayor, the Chamber of Commerce, League of Women Voters and Citizens Environmental Coalition backed "Take a Neighbor to Work Today" -- a carpool project originally suggested by Foley's Teen Council, which won a $2,000 "Seventeen (magazine) Acts For a Viable Environment" contest. The aim was to reduce peak traffic and dramatize mass transit problems. City health officials and university health experts were to measure pollution levels at 25 locations and study the results, while highway and police officials counted traffic changes in 28 locations.

Chamber officials hoped to reduce car usage by 10,000 on freeways, and cut down on the 42,000 daily downtown cars and increase the 1.35 per passenger in each car. The city mayor urged carpool participants to turn on auto headlights. Massive mass media publicity and promotion ranged from posters, signs, and commercials to published rules on car etiquette; but results were disappointing.

Only 2 1/2% reduction in traffic volume was reported, whereas 15% had been the goal. There was only a 4% decrease in the number of single occupant cars and some drop in parking lot usage. Many drivers who came alone to downtown reported they didn't know anyone in their neighborhood who worked downtown. Ten per cent of those reluctant to join a carpool said they preferred to be alone. (A Chamber survey of June 18-19 found that 77% of cars coming into downtown had single cccupants.)

The Teen Council gave $1,500 of its prize to groups promoting mass transit. The Jaycees planned a longer carpool campaign and an effort to help employees find their commuting neighbors.

Houston's efforts to use carpools as a form of mass transit may depend on communication among residents. University of Houston students are using computers

to sort out names and addresses of 1,300 staff members to chart carpools, and some companies are listing employees by neighborhoods rather than merely relating carpool information in newsletters or on company bulletin boards. One University of Houston economics student, John Bott, has asked the Harris County Commissioners to take the lead by providing incentive for carpools with free parking and rewards for early return-home-trips. He also asked the officials to allow him to organize carpools for county employees. Such mass transit efforts may allow Texans and others to retain some of the benefits of the auto while conceding the needs for different forms of transit.

(It should be noted that the first Federal Emergency Air Episode Plan by the EPA conducted with federal employees in Los Angeles in July not only got local criticism and protests to President Nixon because federal employees were sent home to reduce smog, but it failed to reduce auto traffic and the expected smog was blown away by an unusual wind.)

A University of Houston professor of social psychology, Richard Evans, working with the June carpool project, noted that "human factors" were significant: the desire for solitude and independence, objection to the carpool social situation (smoking and not an "in" thing), and lack of incentives. Evans suggested special lanes for multioccupancy cars, company fringe benefits, partial payment on car repairs, honor rolls, thank-you notes from the mayor, decals and ecology themes such as saving on gas.

The Chronicle concluded that "Car Pooling Isn't The Answer" but rather a "fast, efficient and comprehensive mass transit system".

Houston studies Atlanta's mass transit success and on October 6, 1973, Harris County voters (16% of those eligible) answered on mass transit with a 3-1 defeat of a proposed Houston Area Rapid Transit Authority (HARTA), which would have had power to levy a tax on vehicle emissions to finanee it. Vote analysis showed that affluent Whites were for the authority, but middle and low income Whites, Blacks and Mexican-Americans opposed it.

Despite smog and congestion like Los Angeles and some recent anti-expressway sentiment and air pollution control pressures from the EPA, Houston residents appeared skeptical of promises to improve mass transit service. There was low attendance at hearings on the proposal in the central city, while suburbs appeared to oppose the plan as too costly for the benefits to be received.

Houston city officials and the Chamber of Commerce favored the transit authority, and the Chronicle editorialized July 24 that Houston "can't put off dealing with its mass transit problems" and that the "sense of urgency" in Los Angeles "also applies here" in order to unite the city, reduce traffic and smog. Skepticism of the transit proposal appeared in "letters-to-the-editor", and debate arose over whether HARTA officials should be elected or appointed, and whether the referendum shoud be on a Jewish holiday.

A Community Improvement Committee, co-chaired by the editor and publisher of the Baytown Sun, sought voter approval by use of large full-page newspaper ads urging support. There were radio-TV programs, cartoons, and at one time a poll sponsored by backers indicated public support for the transit authority, but the Committee, rushed and behind in its ad campaign, got less public donations for financial support than it had expected. A legal ruling that the authority was constitutional three days before the vote did not reduce public confusion as voters also concentrated on a city election campaign. The transit referendum had a communications crisis.

There was expressed public skepticism of a new rail system for a low density city, which might get subway crime, and public fears of a new super-governmental body of appointed officials with tax and police enforcement powers and power of eminent domain. Public fears of lack of citizen participation arose during the peak of the Watergate investigations of officials who were also appointed rather than elected. In addition, opposition came from the AFL-CIO, Black and Mexican-American organizations, some County commissioners, and four Black Democrat state representatives, all somewhat skeptical of public participation provisions in the proposed authority and skeptical of missing specific transit plans. One group, Sponsors of Meaningful Area Rapid Transit (SMART), even opposed HARTA.

After the defeat, the city began plans to buy, enlarge and improve the city's ailing bus system already losing $500,00 a year. Revenue-sharing funds were discussed as one source of subsidy, and Houston's aged (without the usual reduced fares) sought a bus fare decrease through such funds.

## Research Assignment: Definition and Scope of Mini-Proposals.

### Austin Transit System (ATS) As A "Laboratory"

Although Austin is the smallest of the five large Texas metropolitan areas, its central city in 1970 had more than 250,000 residents, and by 1973 the 20-

county trade area of Greater Austin had more than 660,000 people. Like Los Angeles years ago, Austin is still a desirable place sought out for living. It is free of harsh winters, is rich in history, recreation and cultural facilitites, and is appealing as a haven of escape from more concentrated national and regional urban areas. The sky and the nearby Hill Country are still visible. The luxury of space encourages low density, the carport and ranch houses.

Austin is dominated by increasing decentralized living and growth patterns and dependence on the auto, which fits the speed, mobility and prestige of a "company town" long existing primarily for the governmental functions of the state capitol and the state university. It is an ideal setting to examine potential for mass transit usage.

Austinites without autos (as in many American cities) are oddities. Outside the concentrated downtown, university campus and state capitol areas, pedestrians often find few sidewalks, few places to sit or wait, eager autos now allowed right turns on some red lights, autos often parked on sidewalks and in the middle of main streets, and failure of drivers to obey pedestrian crosswalks. Pedestrians not in traditional walking or standing areas may draw public suspicion.

There were 22 traffic deaths in Austin by the end of June 1973 and that included some pedestrians. The American Automobile Association Pedestrian Safety Inquiry Report found a relatively low Austin 1972 rate of 3.6 pedestrian deaths per 100,000 population and 59 pedestrian injuries, compared to 4.9 deaths and 116 injuries in other cities of like size, but such figures might be due to the probable low percentage of Austin pedestrians or to their ability to skillfully dodge cars and survive despite being a possible form of "endangered species", which seeks to use mass transit.

As Austin faces the beginnings of smog, a critical fuel shortage, an invasion by former urbanites seeking escape from pollution and other urban problems, and the EPA's warnings to auto-dominated cities, there is still a general city growth ethic that the city must grow even larger.

On the positive side, a civic-consciousness of city beauty and desirable quality of life may stop pollution and reduce dependence on automobiles. The Spring 1973 city elections indicated that environmental advocates in the University of Texas community and others may challenge city urbanization patterns. There is also a dedicated city concern for such things as pedestrian walkways, mass transit alternatives, and a response to increased use of bicycles (some

20,000 registered in the city the last 4 years) by being the first Texas city to provide bike traffic lanes. There are also efforts by the Austin Committee for Public Transportation and the Texas Association for Public Transportation to get approval and implementation of a North-South rapid rail transit system to serve concentrated areas of the University, state capitol and downtown. It would be a $144 million Capitol Area Rapid Transit (CARTRANS), being promoted as a means to reduce both traffic congestion and pollution.

In addition, the city already has a three-part bus system: Transportation Enterprises Inc. (TEI) operates a University shuttle bus system of some 45 school bus type vehicles on 45.2 route miles each weekday for some 10,000-12,000 student riders. A small Model Cities bus network started in July 1971 operated largely in the city's east side aided by federal funds; and the Austin Transit System (ATS) operates some 40 buses over about 7,700 route miles each weekday and Saturday and 2,700 miles on Sunday. The ATS was operated by the Austin Transit Corporation under an agreement with the city until early 1973 when it came under municipal ownership.

Austin has had a variety of public transit services back as far as 1875. As with other American cities, ridership decrease led to government subsidy. In Austin, bus revenue decreased 27% from 1960 to 1969, a decrease greater than the 21% in other U.S. cities in the same period. At the same time, Austin's population increased 26% as mass transit usage decreased. By late 1972, the three city transit systems carried more than 30,000 weekday passengers, with 73% on the shuttle buses, 26% on the ATS, and one per cent on the Model City buses.

In this study, a decision was made to concentrate on the Austin Transit System's city buses and to exclude the Model Cities and TEI Shuttle Bus System at the University of Texas. The ATS was thought to be more typical of other U.S. urban mass transit systems and results would be more applicable to other cities and capable of generalization, because the ATS is part of the city governmental structure and represents liaison with the Department of Traffic and Transportation, ties to the city council and serves the typical urban minorities: Blacks, Mexican-Americans, aged, poor, and handicapped, with the last category highly represented in Austin's numerous state institutions for handicapped.

In contrast, the more successful shuttle buses are tied to the captive, typical college town audience whose similar residence patterns and common destination make mass transit functional, and therefore cheap, specific and personal, while the city buses must try to serve a more diverse mixture of people over a widely diverse community.

The exclusion of the shuttle system from this study was also due in part to a summer-time study, when its function might not be typical with most students away. Another aspect is that although University students use the shuttle and the car about equally, very few use the city buses. An analysis of the modal University of Texas student described in "A Profile of UT Austin Students" by Margaret Berry of the Division of Development at the University, found the following student modes of travel, based on student registration forms of 40,619 students:

| Mode of Travel | Fall 1972 | Fall 1973 |
|---|---|---|
| Shuttle Bus | 10,552 | 12,226 Up |
| Walk | 9,605 | 10,468 Up |
| Drive | 9,951 | 8,893 Down |
| Bike | 4,394 | 4,157 Down |
| Auto Passenger | 1,193 | 1,101 Down |
| Motorcycle | 644 | 580 Down |
| Car Pool | 379 | 703 Up |
| City Bus | 134 | 250 Up |

Student use of mass transit appears to be rising, and could be the subject for other study. Faculty transportation patterns are the object of a concurrent study, but some indication of possible faculty commitment to the auto was indicated by a survey by the University Parking and Traffic Policy Committee in late June 1973 which found that 75% of 1,000 respondents were willing to pay up to $150 a year for a parking permit in a proposed, new 200-car multi-story campus garage.

Although Austin's mass transit usage is dominated by the volume and success of the campus mass transit service, there is developing in the city a community no longer oriented around the "college town". Another and perhaps the most persuasive argument for studying the city buses as typical of Austin mass transit is the fact that the system is in a flux suitable and useful for a "laboratory". It is under new municipal ownership, with expanded routes, more frequent service, longer hours of operation, reduced fares, Sunday service, with plans for a new building, expanded public information and customer relations functions, and recent studies and recommendations on its function. What's more, Austin City Manager Dan Davidson in July listed the new bus system as the top accomplishment of the city administration.

Several developments occurred before this project was funded to warrent special study of the city bus system:

| | |
|---|---|
| October 1972: | Release of two major reports on the city's transit systems and transit action programs |
| December 1972: | Announcement of major changes in bus service |
| January 1973: | New city buses under operation of new management |
| February 1973: | New Customer Service Center established and first director appointed |
| March 1973: | On-board survey of riders |
| April 1973: | Distribution of 8,000 maps, schedules and routes by Independent Postal Service |

In preliminary talks with ATS officials soon after the project was funded, it was clear (as with CATS) that they preferred "action, not just ideas", "practical projects" and "production of hard, not soft, term-paper research". They wanted concrete evidence on whether communications media matter in mass transit sufficiently enough to use funds budgeted for the ATS public information program. ATS officials felt along with the Department of Traffic and Transportation that city hall would respond to facts and figures, and dollars and cents when it approved funds to spend on information programs.

This pragmatic interest led the project to focus on the service and problem aspect of transit officials having to justify the new city buses and the new public investment in what was already highly subsidized. This led further to a concentration on existing riders or near-riders rather than a launch of a huge selling campaign to change attitudes toward mass transit in general or to un-sell the auto. (The Pittsburgh study had already found such massive campaigns to have little short-run effects.)

It was also decided early not to merely interview transit officials and made suggestions and proposals, but instead to try to isolate the potential and existing riders who might be activated by information rather than extensive persuasion. This major project concern with information to increase the number of riders was not designed as general education or persuasion with massive publicity (newspaper stories, ads, pamphlets, press releases, TV-radio time), but to seek out those who want, need or are inclined to ride and need only information, not persuasion.

There was an inclination to approach the project with the use of interpersonal communications (phone, mail, meetings) rather than use mass media techniques. The idea was to use information to facilitate the existing transit system rather than "sell" mass transit, but some combination of both was thought

likely in the early planning stages. It was felt that the creation of a public demand for bus service in general might be beyond the scope and resources of the project, and a longer-range marketing and selling effort could be implemented after findings in the Davies-Alpert-Hudson study of modal choices, a larger, more comprehensive study. Such a mini-effort herein might also affect research on such a future study.

Project approaches which required time to evaluate, but which were discarded include:

Bus habits and information for the poor. The Blacks on Austin's East Side (No. 12 line) were already among the heaviest transit users, and perhaps do not need to be persuaded or informed as does the white middle class who are non-riders and un-committed.

A personalized, local neighborhood transit map distributed and tested as was done in Pittsburgh, and inserted in the local newspaper with special color appeal to minorities and the less educated. Discarded because the proposed designer left the project; color was costly and only $300 was available and printing estimates had to be made before funds could be "saved" from reversion; the map might duplicate ATS material already distributed; the Pittsburgh project had more money and the city a different terrain and more density.

An appeal to state employees (capitol, universtiy, etc.) and to large corporations to promote use of mass transit. Discarded because it would be too hypothetical for project sponsors and too limited to only part of the city; a survey on residence and attitudes of employees was deemed too expansive for this project's limited staff, time and funds.

An information booth project downtown or in one of the large shopping centers where transit customers could be polled and interviewed. Dropped for lack of time and planning.

On the job work and participant-observer of Customer Service Bureau of ATS, helping to answer phones, prepare new logo and layout for revised schedules with help of graphics assistant on the project, and help ATS offices in general. Discarded because CATS was not receptive to idea of work off campus without direct project supervision, and city transit officials not wholly enthusiastic to new outsiders working in their offices.

A possible project on information with the Department of Traffic and Transportation. Dropped after conference in which project funds were revealed as not enough for DOTT to engage in project.

Incorporate a question on information into the Spring on-board survey. Too late after project was funded in March; survey results studies for information factors.

Formulate technical proposals to improve public favor toward transit service after on-bus surveys. Staff of project not technically qualified to assess costs or feasibility of technical improvements; and again, this would be in the area of ideas and hypothetical results.

Suggest information changes to fit complaints of riders in on-board survey conducted by transit officials. Not pursued because users, rather than non-users, were involved and ones most likely to complain; bus deficiencies might not be accurately perceived by riders; and complaints might not be genuine; and such a project might not produce immediate results.

Extrapolate demographic characteristics from bus riders for a profile of socio-economic data and plot where they are and what media is needed to reach them. Not chosen as project because of time, money and staff required, but also because it is part of larger Davies-Alpert-Hudson study on modal choice, and this project's expedient dependence on surveying bus riders only would bias the sample as unrepresentative of Austin's population. Furthermore, a small project of this sort was being planned by a University marketing and statistics class, and is mentioned elsewhere.

Publicity and promotion of the project itself as a way to generate public interest in mass transit. This offered possibilities for media attention and a chance to attract future sources of funds, but "results" might be only news clippings rather than useful results for transit officials. The only publicity was a small item in the School of Communications Newsletter inviting student input and work on the project; a minor item in the national Journalism Educator; and some mention of the information project in the context of the larger transportation research program at the University of Texas; and CATS involvement.

The Mini-Project: Design and Procedure

The purpose of this project on "Dissemination of Information to Increase Use of Austin Mass Transit" is to evaluate the effectiveness of the new Customer Service Center of the Austin Transit System (ATS). The Center was established in early 1973 following a October 1972 recommendation for its formation by the Transit Action Program, a study by the City of Austin financed in part by a grant from the U. S. Department of Transportation and Urban Mass Transportation Administration.

This 1973 evaluation report is seen as a possible aid to the Austin Department of Traffic and Transportation (DOTT) which the previous 1972 report recommended as a "reviewing agency". The 1972 report recommended a Customer Service Center to:

> "provide understanding and communication between the users and the transit system...to provide transit users with a central point for information regarding schedules, routes, fares and services; and for registering complaints, suggestions and recommendations for expanded service."

The Center was set up at an estimated yearly cost of a recommended $25,000. A recommendation in the report was made for a Public Information Program costing about $50,000 effective in October 1972. Money was budgeted for the program, but it had not been formally implemented or staffed when this project was proposed or underway. It was proposed as "a strong and productive marketing effort" and "an effective, dynamic public information program which informs the citizens about the transit system and distributes information regarding the service by the system."

The report emphasized that the transit system is "a million-dollar business and its economic stability depends upon a productive marketing effort, just as would be the case of any business that size." It noted that "there is considerable misunderstanding about public transit, and tough competition with the private automobile for passenger service." It indicated skepticism of using the usual "news releases" and telephone calls to provide "the desirable emphasis".

The same report suggested that transit service "be vigorously marketed to those who do not use the bus system"; that transit route promotion include metal receptacles with advance notice of new routes; leaflets showing routes and time schedules; display posters; complete transit system routes; and ride promotion campaigns such as special passes, sales of tokens, door-to-door promotion of route extensions, and merchant-participation programs where customers get free transit tickets for purchases. It pointed out that non-riders have little knowledge about bus stop locations, routes and frequency of service.

To evaluate the Customer Service Center (CSC), the following procedure was used:

> 1. Analyze and describe the CSC practices, problems and procedures through intensive, in-depth interviews of the first CSC Director from late May to mid-August; through a review and examination of the files of "Request for Service" and customer "Complaints" forms and personal observation by project assistants; and through an examination of public information done by the CSC, and its information liaison with DOTT and the information media.

2. Test the public impact of the Customer Service Center by publicizing its telephone number and its services in informational and promotional content in mass media, in inter-personal communication directed to one selected community served by a new route; and detect the transit "personality" of that local neighborhood and get some comparisons of mass vs. non-mass media and thereby answer the CSC Director's question: "What is the best information media to increase transit usage through the CSC and what does it take to get a public response?"

The test was to be done as follows:

(a) Suggest to the mass media that the CSC phone number (478-8581) and ATS services be publicized during Aqua Festival Week, Aug. 6-10.

(b) Mail letters and telephone to residents the same number and information on ATS services; plus mail copies of ATS schedules to a selected Austin neighborhood with new service the same week of media exposure.

(c) Monitor afterwards the:
-content of the mass media
-response to the CSC switchboards by a tally of call-ins, busy phone signals, and mail zip code areas sent requested ATS schedules and maps
-response of the sample community (to comparative exposure to mass media only, telephones, and mail) through a questionnaire
-ATS ridership city-wide and in the test neighborhood, as analyzed by the DOTT staff.

(d) Evaluate the results relative to both the CSC and transit public information and marketing; make recommendations and suggest future study and support.

## Evaluation of Customer Service Center (CSC)

The main CSC problems during its first six months appear to relate to its natural identity crisis as a new agency. There is the problem of gaining external legitimacy with more public awareness of its function; and the internal acceptance of public information as a function of mass transit. Lines of authority, job definition and description, and liaison with DOTT and the City of Austin were not sharply defined in the early months.

The CSC naturally was overseen and directed by DOTT which is concerned both about its performance and its public image and its reputation with the city council. The first director and the second have had backgrounds in the speech-advertising and civic promotion areas rather than in print media, the traditional pattern for many public information types. In this case, the oral types would

have an advantage since the telephone and electronic media are very much involved in the CSC function. The first director was paid $500 per month.

There has yet not developed a public information program, partly because the $50,000 budgeted has not been operationalized with a staff; and partly because the CSC directors have spent most of their time with the telephone calls. Also, there has been no tradition of public information or promotion in the transit system offices, except for a rather primitive and rudimentary attention to public image and information.

The CSC directors have assumed or tried to assume some of the duties of public information while supervising the phone services. (Information and reports on the Denver and Dallas transit promotion experiences have been circulated. Outside advertising and information specialists are interested in consulting contracts.)

Much of the frustration of the first director related to lack of staff to do routine things like write letters and run errands. Promotional, advertising and layout expertise was badly needed as revised schedules were prepared. The first director found time to write one magazine article, and numerous news releases, but found long delays in getting the city public information officials to approve such releases which are often re-written; and which, when printed, are not systematically clipped and circulated to the CSC office. The director often felt she was "the last one to hear" about certain public information and transit reports.

In the absence of a research staff, there was no testing of the possible impact of the distribution of maps and schedules by the Independent Postal Service in March 1973. (General ridership was up, and there was a 14% increase in April, and from 80 to 100 phone calls per day, but the effect and evaluation of the distribution was considered "a stab in the dark".) Without research facilities, there was also no analysis of incoming phone calls, where they are from or to whom, since no record is kept of separate administrative and public calls except for busy line tallies.

There appears to be a need for more lines and more phones and special training for phone answerers; training for bus drivers and dispatchers answering the public, and systematic feedback of drivers' observations to the CSC. New two-way radios may alleviate some of this internal communications problem.

Needs which the CSC felt could bolster the CSC included: the need for signs on every corner where a bus stops and posting of schedules at stops; need

for an information booth in shopping centers and downtown; need for posters and more transit educational material on buses; need to educate city councilmen on how information and marketing can make mass transit income increase; need for bus shelters with maps and telephones; and need for a positive public image for the ATS and CSC.

There are plans for a new transit headquarters building to open in March 1974. It will have display space, host field trips and tours, and have the public information office separated from other ATS operations. It is hoped by CSC that this will increase public awareness of the transit service. (Some youth groups and the handicapped have come to the transit offices on tours already). There have been some public meetings attended by transit personnel to explain the bus service to the general public.

The Austin news media are receptive to news ideas from the CSC if they get some help from the CSC or if they have time or inclination to dig for transit news. In this respect, KVUE-TV has been helpful, according to the CSC. Some newsmen and editors still see the transit service news as "public service" events, according to CSC. One city store distributed a transit promotion shopping bag as a public service with the slogan: "Ride, Shop and Save".

The lack of public education was evident in early January 1973, when there was great confusion by both riders and drivers over the changes in schedules and the new buses. The Austin American Statesman on December 28, 1972, had published a whole page and a map on all routes, showing schedules, information on expanded service, extended routes, lower fares, free transfers, longer and more frequent service, but during the holiday period, it was thought by CSC that many people never read it. (The A.P.T. magazine of Austin carried a similar story and map). A related information problem was the fact that old school crossing signs were re-painted and used as bus stop signs, but there were only 350 and buses were to stop at all corners since the signs were meant primarily as a guide for the route.

The importance of the CSC was indicated in the May 24, 1973, "Impact Study and Modifications for Improvement" report, which was a recommendation for the first schedule changes since the new bus network was instituted in January. The CSC not only helped play public information on the changes, but was the channel for citizen input for those changes through its "Request for Service" and "Complaint" forms and through mail, phone and in-person contacts with the public in other ways.

The on-board survey which provided the data for the report was conducted by 24 survey workers who rode more than 17,500 route miles and spent 1,400 hours handing out origin and destination, post-card size forms which could be handed back to the surveyors or mailed to DOTT, postage paid.

The survey found that ridership increased each month over the same period in 1972, with total usage up 8.7% in January and 27.6% in April, with the highest one-half hour usage between 7:30 and 8:00 a.m. on the East 12th Street line. Some of the ridership increase was credited to free transfers and a two-hour time limit on their usage, but public awareness through the CSC cannot be discounted.

The eventual development of the Public Information aspect of the ATS may give the CSC more time to concentrate on its service and study of present users, while public information might be developed to persuade or inform non-users. Some indication of that potential may come from the results of the test of CSC's phone number in this project's experiment.

## Exposure of CSC in Mass Media

To test the impact of the CSC and its telephone number on the general public, the mass media were informed and urged to call attention to this transit information service. The Austin media available included 10 radio stations, four TV stations, two daily newspapers, and a weekly.

The combined daily 71,444 circulation of the Austin American (a.m.) and Statesman (p.m.) covers about 85% of the city's 82,600 households with home delivery. A minor two to three per cent are newstand sales, not unusual in most cities nowadays, and probably significant with Austin's low pedestrian density. The almost total newspaper coverage in a growing city is somewhat unusual, since larger city populations grow out of the small-town newspaper "habit" and in suburbia especially depend on the local weekly and on radio-TV. The American Statesman is combined on weekends.

The bi-weekly Austin Citizen is published Tuesday and Friday with 9,000 city-wide circulation, and on Thursday distributes a Northside News of 31,000 and a Southside News of 12,000 circulation.

Since the shuttle bus system at the University was not included in the study, the Daily Texan was omitted, although it does circulate some outside the campus and contains news outside of the University. The University radio

station KUT was included since electronic coverage is more likely to go beyond the campus and into homes served by city buses. City magazines were not included since less frequency in publication did not lend them to the experiment.

Cable TV channels available in Austin were not used, since they were mostly from outside the city (San Antonio, Waco, Fort Worth and Belton-Killeen). The newest cable operation originating in Austin, ACTV, was just beginning and aims mostly at specialized rather than mass audiences. The TV stations involved in the project were the three mass audience network outlets locally: KTVV, KTBC and KVUE, and the one city public TV channel, KLRN. The 10 radio stations, both AM and FM and both special and mass-oriented, were KASE, KHFI, KNOW, KOKE, KRMH, KTAP, KLBJ and KVET.

The period selected for media exposure was August 6-10 at the peak of summer heat and in the midst of the city's biggest annual civic event called Aqua Festival. There was also considerable public discussion of a city fuel and energy crisis. The EPA auto pollution hearings had been held July 17-19 in Austin. The governor had announced a "Project Save" to reduce traffic accidents in the state in early July, and in a special local state senate race set for August 14, one candidate had distributed door-to-door leaflets, pointing out among other things, that "mass transit pollutes less and saves our neighborhoods".

It was thought that there was optimum public interest and receptivity at that time of crisis issues for measuring public awareness of the CSC services in mass transit; and an optimum time for any possible changes in attitudes and habits on mass transit.

There was a probable residue of public awareness about mass transit: media news on the new buses and service in January, news on proposed readjustments on schedules publicized in late May and early June, bus schedules and maps distributed by the Independent Postal Service, news on the CSC opening, the on-board survey, special tickets for elderly, news on no-fare transit proposals and the rail transit project, some radio (KRMH) and TV (KVUE) coverage of CSC and other transit innovations, and a large volume of media content and editorials on energy crises and related pollution.

Prior to August 6, the newspapers had published a calendar of Aqua events from Aug. 2-6, and both print and electronic media had promoted the sale of Skipper Pins and entries in the annual Pet Parade of the festival. A special 18-page August 3 newspaper supplement in the dailies heralded the Aqua Fest

with a lead editorial, stories on the bands, balls, parades, pageants, and on the 200 boats to appear in the "World Gas and Fuel Drag Boat Races" called locally, the "Indianapolis of Boat Races". The special section was sponsored by businesses and backers of the civic festival. No part of the section dealt with mass transit to the events, or with ecology or pollution. The newspapers and other media had however shown enthusiastic support for a city campaign to save fuel by reducing use of electricity, including air conditioning. The "Spirit of 78" (degrees in air-conditioning) was the campaign theme in numerous cartoons and editorials.

In regard to this project it was thought that the media would be receptive to a "joint civic and journalistic endeavor" in order "to test whether mass media information and persuasion is effective in increasing use of Austin's new city buses, which are a subsidized quasi-public utility seeking to pay its own way in competition with the more popular automobile". That was the approach toward civic promotion of the Aqua event, publicity for the transit service and possible useful results for the project.

Form letters on University of Texas stationery were mailed to all print and electronic media in the project, with letters addressed personally to daily and weekly editors (because their names were more familiar) and to station managers of radio and TV stations. There was an implicit appeal to civic pride and boosterism and the propaganda of self-interest for media in the city, whose newspapers, for example, advertise their public responsibility with slogans like "In Our 10th Year of Community Service", and "Read by the Decision-Makers of Texas".

The media were urged to cooperate, by publication on page one or broadcasting in prime time, informative material on how to use the city buses to get to Aqua Festival and persuasive spots or articles on how to use those buses, and why bus riding could aid safety and comfort, prevent congestion and pollution and save fuel. The over-all theme suggested was "RIDE THE BUS: CALL US", with sub-slogans suggested: "BUS IS BEST FOR AQUA FEST", "KEEP COOL-SAVE FUEL", "SAVE ON GAS-BUS IS FIRST CLASS", "A SAFETY SUGGESTION-NO TRAFFIC CONGESTION", and "A SOLUTION TO POLLUTION". Both public and private news sources were suggested for stories. Festival sites such as Town Lake, Municipal Auditorium, Festival Beach and Fiesta Gardens, were cited and stories about buses to those sites were suggested, The CSC telephone number (478-8581) was included.

THE UNIVERSITY OF TEXAS AT AUSTIN
AUSTIN, TEXAS 78712

...tment of Journalism
...18/Phone 512—471-1845

July 31, 1973

Dear Austin Journalists:

During the peak of Summer heat and the fuel shortage and at the height of Aqua Festival activity, Aug. 6-10, UT communication researchers want to test whether mass media information and persuasion is effective in increasing use of Austin's new city buses, which are a subsidized, quasi-public transit utility seeking to pay their own way in competition with the more popular automobile.

As a booster of the civic Festival and as a public service, we are suggesting that in the week of Aug. 6-10, the test period for this project, that you might cooperate by publishing or broadcasting page one or prime time informative material on (a) how to use city buses to get to Festival events; and (b) persuasive spots or articles on why city buses can aid safety and comfort, prevent congestion and pollution and save fuel.

Your civic interest has already been evidenced in spots and cartoons on "Cooperate at 78", the "Pet Parade Entry Form", and the Aqua "Skipper Pins on Sale Now". Bus promotional slogans might accent: "KEEP COOL-SAVE FUEL", "BUS IS BEST FOR AQUA FEST", "SAVE ON GAS-BUS IS FIRST CLASS", "A SAFETY SUGGESTION-NO TRAFFIC CONGESTION", "A SOLUTION TO POLLUTION"-----all with the theme "RIDE THE BUS: CALL US--Austin Transit System, Customer Service Center, 478-8581."

Potential news and feature angles and news sources include not only the bus authorities, but the Austin Department of Traffic and Transportation, the Chamber of Commerce and Aqua Festival promoters, who can suggest which transit routes best serve festival sites such as Town Lake, Municipal Auditorium, parks, and Festival Beach and Fiesta Gardens.

We hope you will cooperate in this joint civic and journalistic endeavor and that the results will benefit both enterprises.

Copies: American Statesman
Austin Citizen
Radio: KASE, KHFI, KMFA, KNOW, KOKE, KRMH, KTAP, KLBJ, KUT, KVET
Television: KTVV, KLRN, KTBC, KVUE

Thank you,
Gene Burd

Gene Burd
Assistant Professor
Transit Project Director
471-5211

Vijaya Ganju
Research Assistant
471-4101

In regard to themes, they represented notions directed toward "Austin Journalists" and not smooth or sophisticated advertising or marketing strategy. Extremes in theme were avoided such as: "A New Bus, A New Venture" and the cliched expression "Try It, You'll Like It". The CSC Director was asked for suggestions on persuasive information on selling mass transit and she suggested: the fuel shortage, pollution, parking, safety (possibly less accidents by air-conditioned vehicles) economy in transit, and adventure for children.

Such cartoons would be both informative and persuasive, and combine the advantage of large, paid newspaper ads and yet be less expensive. The selection of format and approach was left up to the mass media, even though that gave the project workers less control over the content of the experiment. The rationalization was that:

-There was no project staff to prepare such material.
-Media freedom to do what it pleased would encourage newsmen to be resourceful and imaginative and become more familiar with mass transit problems in the city.
-That "educational" and "public service" approach would not offend journalists sensitive to "public relations hand-outs", research experiments using the media, or orders from a government agency (university or ATS) to print certain material. (The Austin American editorialized August 9 that "The right of an editor to decide what goes into his newspaper is a cornerstone of freedom of the press protected by the First Amendment".)

The letters to the media were mailed July 31. The media was not told of the project plan to test one city neighborhood, a proposal somewhat unsettled at the time of mass media approaches. Any calling of public attention to the one neighborhood might also have affected reaction of that neighborhood to general media content or content directed to it alone. It was implied that the CSC phone number was part of the test, but since no announced rewards for calling in were involved, it was reasoned that the reaction would better represent the normal transit information-seeking behavior. Again, it must be said that the appeal to the mass media for cooperation was in the spirit of mutual civic service and research with no special self-serving benefit sought by those in the project, and with a concern that the transit service gain increased riders so as to decrease its dependence on the general public for subsidy.

Inter-Personal Neighborhood Communication of Transit Information

The second part of the test was to mail letters and telephone residents in a selected Austin neighborhood with most of the same information and persuasion on mass transit that was sent to the mass media. In addition, copies of transit schedules for the area were enclosed. This personalized contact was made so that exposure to it would occur early in the same week as the mass media would hopefully disseminate their information, Aug. 6-10.

Several community areas were examined for testing. A "natural" geographically distinct neighborhood was sought out, and ones considered briefly in the plan for a neighborhood map were University Hills No. 20 near the airport; and East 12th, No. 6 in the Black community. The choice was finally for the terminus of the South Congress Line, No. 13 in an area roughly bounded by Ben White Blvd., Interstate Highway 35, South Congress and the Austin city limits on the south edge. (See MAP) That area contains approximately 426 households, about 1600 residents, with bus service almost completely saturating the area, with stops within two blocks of most homes every 30 minutes between 6:10 a.m. and 9:40 p.m. weekdays and Saturday and at one-hour intervals on Sunday. The round trip mileage for the route from downtown is 9.4 miles with a 30 cent fare and 40 minute bus running time.

The area had obtained new service with the new buses as of January 1973 and no changes in schedules or route were planned after the Spring on-board survey and service readjustments. It was in the general area described in the October 1972 report on Analysis of Existing Transit Systems which referred to "Areas Without Service" as "some developed areas south of Ben White Boulevard and west of Interstate 35."

The area was covered by an estimated 80-85% circulation of the Austin American Statesman, although newspaper circulation generally decreases in distance from the central city, and this area was at the city limits. There were no exact neighborhood circulation figures available for the dailies. The Austin Citizen coverage was estimated at 4 1/2 % of the area covering residences surrounded by Ben White, I-35, South First and the city limits for a circulation of 400; while its South Side News numbered an estimated 1500. No measure of radio-TV neighborhood saturation was available at the time of this project.

The South 13 Terminus Area of the project had also been saturated with postal distribution of maps, schedules and routes by the Independent Postal

Service in March. Fred Leyendecker of the postal service reported that the test area was in the northeast corner of the city's largest zip code area (78745 - See MAP), and all homes got a bus schedule of new transit service, and 150 maps were distributed in each section of 400 homes. He said the zip area involved got about 1,700 schedules and about 700 maps. The area covers that territory bounded by Ben White, I-35, Manchaca and Eberhard, an area which contains the terminus for Lines 10 (South 1st) and 12 (Manchaca) both at the southernmost end of Austin also. By 1974, it has been recommended that cross-town service connect the southeast and southwest portions of the aforementioned area.

The South Congress Terminus area was found to be one of the less used routes on weekdays and Saturday, according to the March on-board survey, but on Sundays it was one of the routes with highest ridership, more than 100 passengers, with 60 the average for all Sunday pickups. (The October 1972 transit analysis had found that a typical non-rider had "little knowledge concerning the schedules and routes of bus lines near his home." This new ridership may have already indicated knowledge by previous non-riders.)

The area was chosen partly because it is located close to major highway interchanges (an Interstate and major crosstown expressway 290), both highly competitive auto routes along with the adjacent Congress Street, which amounts to Austin's "main street" leading into downtown and the state capitol. The area also had ideal auto access to major Aqua Fest activities on Town Lake, Municipal Auditorium, Festival Beach and Fiesta Gardens, all near South Congress or I-35, perhaps the most travelled highway in Austin. (See MAP); <u>But</u> the area also had ideal bus access to many of the civic events, especially in the downtown area where much of it took place. The area also is not served by the shuttle bus system or the Model Cities buses, so conclusions about the city buses would not be thereby affected.

The test area itself has no community name, but is walled off by natural, undeveloped pastoral boundaries of open land. It is the "picture-postcard" view of suburbia: rambling, ranch-style houses, wide streets with large carports and two car spaces, spacious green lawns neatly manicured, all single family, one-story dwelling units of apparently relatively new $20,000 - $30,000 homes, surrounded by new shrubbery and new saplings, with no sidewalks and cul-de-sacs and streets with picturesque names like Sussex, Newcastle and Suburban. The auto would appear to be a necessity in the absence of sidewalks and walking

areas, and the closest service area (gas station, drive-in market, cafe and motel) 3 - 4 "blocks" to the west but not exactly pedestrian territory because much of the surrounding area is rough ranch and garden-type terrain. A small portion of the study area is distinctly different (in the St. Elmo Road area) with a mixture of light industry, mobile home sales, open fields, and a frequently used railroad spur toward "Truck City" near the Ben White (290) and I-35 junction. (See MAP).

It might be pointed out that the study area is distinctly different from the first half leg of the South Congress Line coming out of downtown Austin. As distance out increases, density is lower, with few sidewalks (if any), service facilities like gas stations and motels rather than residences (which are most often new apartments). Ridership in off-peak hours drops sharply after the bus goes south from Oltorf and S. Congress, site of a major shopping center area. Bus waiting benches are practically non-existent, with one at 1500 South and one at 2300 South, sponsored by an insurance company and Boy Scouts respectively. The major potential generator of massive ridership at the South end of this route is St. Edwards University, a private Catholic school, but its setting is extremely suburban with buildings practically invisible from the S. Congress traffic artery and with long distances probably inviting to only a few pedestrians.

The procedure for exposing the community to inter-personal communication about mass transit was to assemble the names, addresses and phone numbers of some 425 households in the area as published in the Polk City Directory (1972) and the Cole City Directory (1973). Approximately 100 names were selected at random for mail communication and 50 for telephone calls, with both receiving the same information and persuasion on mass transit mailed to the mass media.

The cover letter was a personalized, signatured suggestion that residents might ride buses and especially during Aqua Fest week, for convenience, frequency, safety, and pollution control at any time to reach downtown, Congress Street, St. Edwards, and a connection with the East 19th Line--the other end of the line. The CSC phone number was mentioned for information service. The letter was on Department of Journalism stationery and was signed by the project director with a CATS affiliation rather than as a departmental professor. Areas of Aqua Fest were pointed out in relationship to the bus route.

In addition, the Austin Transit System's own information and promotional material (a copy of the South Congress No. 13 schedule for weekdays, Saturday and one for Sunday) was enclosed in the letter, with the test area marked with

THE UNIVERSITY OF TEXAS AT AUSTIN
AUSTIN, TEXAS 78712

*Department of Journalism*
*78712/Phone 512—471-1845*

August 3, 1973

Have you thought about riding the new city buses ?

Your neighborhood is served conveniently and frequently by the No. 13 SOUTH CONGRESS line, which provides access to Downtown, Congress Street, the Municipal Auditorium and Town Lake areas, St. Edwards University, as well as direct connection to the East 19th St. Route as the enclosed map and schedules indicate.

This week, August 6-10, during the peak of Aqua Festival and at the heighth of summer heat, might be an ideal time to ride the new air conditioned city buses. Your use of the buses will help conserve fuel and reduce pollution. Bus riding reduced traffic congestion and parking problems, and buses are safer than riding in cars.

The Austin Transit System through its Customer Service Center can answer your questions on routes and schedules throughout the city. Their telephone number is 478-8581.

I hope this information is helpful to you.

Thank you,

Gene Burd
Transit Information Project
Council for Advanced
Transportation Studies

Enclosure:
Route and Schedule
South Congress Route

a red X, and the additional information in red: "YOU LIVE HERE" with a red arrow pointing to the boxed area of Sheraton, Suburban, Westmoreland and Old Castle. (See SCHEDULE) The schedule contained not only the bus arrivals and departures at four spots, but a diagramatic map of the total route, plus information on fares, transfer policy, general hours and holiday service, and the CSC number.

All mail brochures were marked as described, adding to the usual ATS brochure instrument an extra persuasive element, which under more controlled conditions should be matched with unmarked schedules, and perhaps the absence of a cover letter. Approximately half of the letters were mailed to the "family" to assure multiple household exposure; the rest were to "Mr." or "Ms" in cases where it appeared a woman headed the household. "The _____Family" appeared on the envelope; and the greeting was to "Dear Mr._____and Family". No mention was made that there was to be a sample to check back on recipients of the literature, and no mention made of the mass media exposure. The letters were mailed on August 5,6, and 7. Less than a half-dozen were returned because of "Moved" or "Left No Address", etc.

Mail was used because of the lack of staff to interview or distribute door-to-door, and because of availability of address lists, ease in checking no "responses" and "not at homes"; less problem with lack of sidewalks, heat and unleashed suburban dogs; and mail can be personalized to a degree, although perhaps less than personal door-to-door contact. The directory lists also contained professions and other information which might be hard to check in person if needed. There was some project concern over the use of University letterhead because of the recent complaints that University Head Coach Darrell Royal had used University stadium scenes and decor to advertise cars on TV for private companies. In this transit study, it was conceivable that the shuttle system could see the University promoting another transit system instead; or that the public might see the University as promoting a transit business trying to make a profit. The readied response (which was not needed) was that the project was "educational" and "research" by the University in a public service capacity, with the major concern to test the 1972 transit studies which assumed that once citizens had knowledge of transit, they would have "greater understanding" and therefore be likely to ride the buses.

The telephone exposure amounted to a condensed summary of the information and persuasion in the mass media letter and the mail-outs, with a softer-sell

to avoid telephone hang-ups by those who answered. There was no initial interviewing for reactions and no gathering of information, although that was considered at one time. However, the frequency of local business hard-sell on the phone in Austin and the concurrent Watergate Hearings had possibly made phone users more aware of phone abuses such as "bugging" at the time of this project. The phone conversation on transit services was brief, and controlled by the caller; but volunteered information by the respondents was noted but not systematically analyzed or recorded. In this respect, many were eager to tell why they did or did not ride city buses as they were being informed of that service.

Results:

Mass Media Content for Week of August 6-10

There was not sufficient staff, time or facilities to fully monitor or measure all media content on the transit project or related material. Casual observation and some spot phone checks with radio and TV stations revealed little content by the electronic media. A variety of reasons were explanatory.

Letters had been addressed to "station manager" rather to an individual or to news directors, and were delayed in reaching those media personnel who could produce program material, which takes considerable time compared to writing news material for print. Some stations indicated that they lacked visual materials to photography; some were skeptical of a possible profit-status for the transit company and did not see it as "public service", and some wanted more information in writing on the project. Some said they would defer any content until the schedule changes later in August.

The CBS affiliate, KTBC, used material in its "Community Affairs Announcements" on the transit project; radio KASE included it on its series "Austin Speaks"; and KRMH-FM, which reaches mostly the 18-34 year old age group more than other stations, and which had previously promoted mass transit for DOTT, presented 30-second public service spots. KRMH was also working with city and station officials to plan possible distribution of such spots to other stations to blanket the Austin area, and the possibility of a Mass Transit Day August 10.

There was even less coverage of either transit or the Aqua Festival or the project by the weekly Austin Citizen. Its Tuesday August 7 edition included only mention of the energy crisis by the editor, Wray Weddell, in his column;

a page 2 story on "Energy Crisis Due Look by Bond Rating Officials"; a page 5 story on "State Transportation Agency Ruled Out" by State Highway Commission; and a long feature story on how "Platforms Hamper Walking, Pedaling".

In the other weekly Citizen issue of August 10, there was still no transit news, but a 12-inch list of scheduled Aqua Fest Events on page 7, and a 10 1/2 inch story on "Gas, Fuel Drag Boat Races Set" for Aqua Festival. Again, the editor called passing attention to the city's energy crisis in his column writing that "Talking privately about the electrical energy crisis, city officials say that this town is 'hanging by threads'. If one breaks, we're in for loads of trouble." On the same page one, a 12-inch story told how "City Maps Save-Energy Publicity Blitz" August 13-19. There were no stories on use of mass transit to save fuel. (There was an 18-inch story on page 7 on "Chilympiad Pot's Boiling", an annual chili-cooking contest.)

The most responsive of the mass media, and apparently more civic-conscious on this particular issue, were the Austin dailies, the American and Statesman. Editor Sam Wood made the transit project promotion a top priority, as the newspapers contacted the Austin Transit Authority and the Customer Service Center seeking information on city bus schedules and how they might serve persons wishing to attend the Aqua events. News, public service and civic promotion merged into a campaign which produced: prominently displayed daily page-one cartoons on the suggested project themes on August 6-10 weekdays and in combined Saturday and Sunday editions; stories on use of buses to Aqua Fest, a schedule of buses to festival areas, and an editorial supporting the transit project idea.

Cartoons by Ben Sargent presented the CSC phone number prominently and showed frustrated drivers and satisfied riders, and put most emphasis on auto congestion, the heat and waste of fuel. "Bus is Best for Aqua Fest" was most often used, with bus fares, hours (up to 10 p.m. when they stop running), and "Aqua Fest" shown on the bus; and page-one lead-ins to inside content on bus transit and festival events.

# American-Statesman

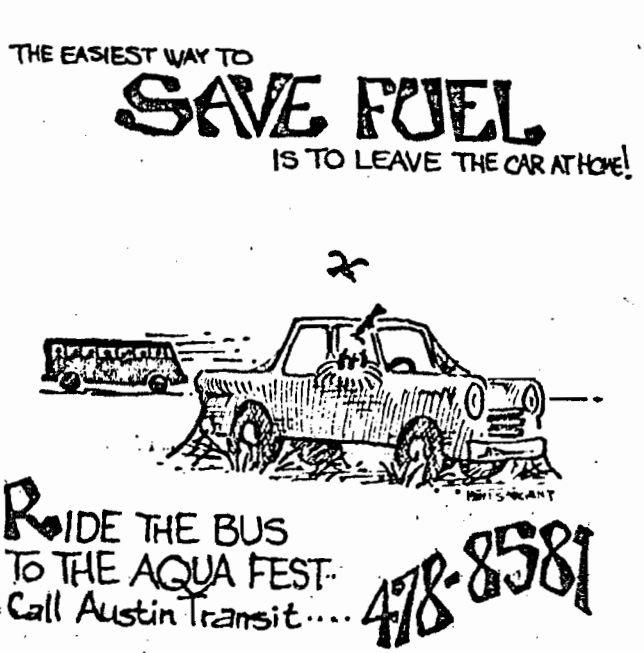
42

*Read by the Decision-Makers of Texas*

Austin, Texas, Saturday, August 11, 1973



TRY A BUS—Austin's new air-conditioned buses are a good way to avoid the traffic congestion of Aqua Festival events. For information about routes, telephone 478-8581 from 8 a.m. to 11 p.m. Monday through Saturday and from 8 a.m. to 6 p.m. Sunday. Basic fare for most adults is 30 cents and 15 cents for students. One thing to remember is that the buses quit running at 10 p.m. weeknights and 6 p.m. Sundays. Story page 21.


See Aqua Stories, Pages A8, 34, 35, 63


Festival Stories, Page 7

# Austin Buses Solve Problem Of Parking at Aqua Festival

One of the less appealing aspects of Austin Aqua Festival events is the crunch of Austinites in their automobiles trying to crowd into parking spaces around event sites.

The long line of cars can be maddening and the noise and pollution atrocious.

But a good way of beating the traffic is to take one of the city's sleek new air-conditioned buses to an AquaFest event and avoid the aggravation of driving. As the famous Greyhound Bus advertising line goes: Take the bus and leave the driving to us.

Festival Stories, Page 6

One note of warning though: The buses quit running at 10 p.m. weeknights and 6 p.m. on Sundays and some of the AquaFest events last past those times.

Austin Transit Company provides a telephone answering service from 8 a.m. to 11 p.m. Monday through Saturday and from 8 a.m. to 6 p.m. Sunday. The service provides information on bus schedules and routes. The number is 478-8581.

Besides beating the traffic, it's cheaper to take the bus than drive your own car. The basic fare from part of town to another for most adults is 30 cents and 15 cents for students.

Elderly persons and the handicapped can also ride for 15 cents during off-peak hours.

There is no fee for transferring from one bus to another.

Many of the Aqua Festival events take place at Municipal Auditorium, Fiesta Gardens, Festival Beach.

The Austin Statesman

# Comment

Tuesday, August 7, 1973

## Bus To Fiesta

Whoever made the suggestion to take a bus to the Aqua Festival, it was a good one. The idea was put forward as a way to avoid traffic congestion and alleviate the headache of trying to find a parking place somewhere near the events.

As it turns out, many of the most important ones take place at Municipal Auditorium, Fiesta Gardens and Festival Beach, which coincidentally can be reached from quite a few of the regular bus routes. Most adults can ride the bus for 30 cents, while the charge for children is 15 cents. Should you consider taking the bus the next time you go to a Festival event and you're not sure whether your route carries you close to it, you can call 478-8581 and find out for sure. The only disadvantage in the otherwise excellent plan to get to the Festival without traffic and parking problems is that the buses quit running at 10 p.m. If you can arrange your schedule so this won't be a conflict, however, everything else should work out fine.

# Aqua Festival Calendar of Events

Aug. 9—9 a.m. to 5 p.m., Art Show, Garden Center; free.
Afternoon, State Frisbee Contests, local parks; free.
Evening, State Hula Hoop Contests, local parks; free.

6 p.m., Battle of Bands Finals, Municipal Auditorium; $2.50 advance, $3 at door.

6 p.m. to midnight, Black Heritage Night, Fiesta Gardens; SP or $1 adults, 50 cents children.

Aug. 10—9 a.m. to 5 p.m., Art Show, Garden Center; free.
Afternoon, Regional Frisbee Contests, local parks; free.
Afternoon, Regional Hula Hoop Contests, local parks; free.

5 p.m. to midnight, Aqua-Fest Night, Fiesta Gardens; SP or $1 adults, 50 cents children.

8 p.m., Pre-Parade Show, Festival Beach; SP or $1.

9 p.m., Lighted Water Parade, Town Lake; SP or $1.
After Water Parade, Festival Fireworks, Town Lake; free.

Aug. 11—8 a.m., Swimming Championships, Garrison Pool; free.

8 a.m. to 8 p.m., Antique Gun Show; $1.

9 a.m. to 11 a.m., Small Fry Fishing Derby, Northwest Pond; free.

9 a.m. to 6 p.m., Arts & Crafts, Buchanan Dam; free.

10 a.m. to 5 p.m., Art Show, Garden Center; free.

10 a.m. to 5 p.m., World Gas & Fuel Drag Boat Races, Festival Beach; with SP, children 50 cents, adults $2; without SP, children $1, adults $3.

1 p.m. to 6 p.m., Hill Country Road Rally, Zilker Park; free. Registration, $5. With Skipper Pin, $4.

# Schedule Of Buses To Festival

Here's a schedule of Austin buses from around the city to Aqua Festival events:

From North Austin to Municipal Auditorium: The Red River (15) and South 5th (16) route is the most direct way on weekdays and Saturdays. For Sundays, the University Hills (20) and South 5th (16) bus will go directly to the auditorium.

From East Austin to Municipal Auditorium: The Rosewood (2) and South 1st (10) buses run directly on weekdays and Saturdays. All buses from East Austin to downtown will meet this route for transfer.

From West Austin to auditorium: Take Lake Austin, Enfield, Casis or Balcones-Chicon buses to downtown to make transfer to the South 1st or South 5th buses.

From South Austin to Municipal Auditorium: The South 5th and Red River buses and the South 1st and Rosewood buses will go directly to the auditorium.

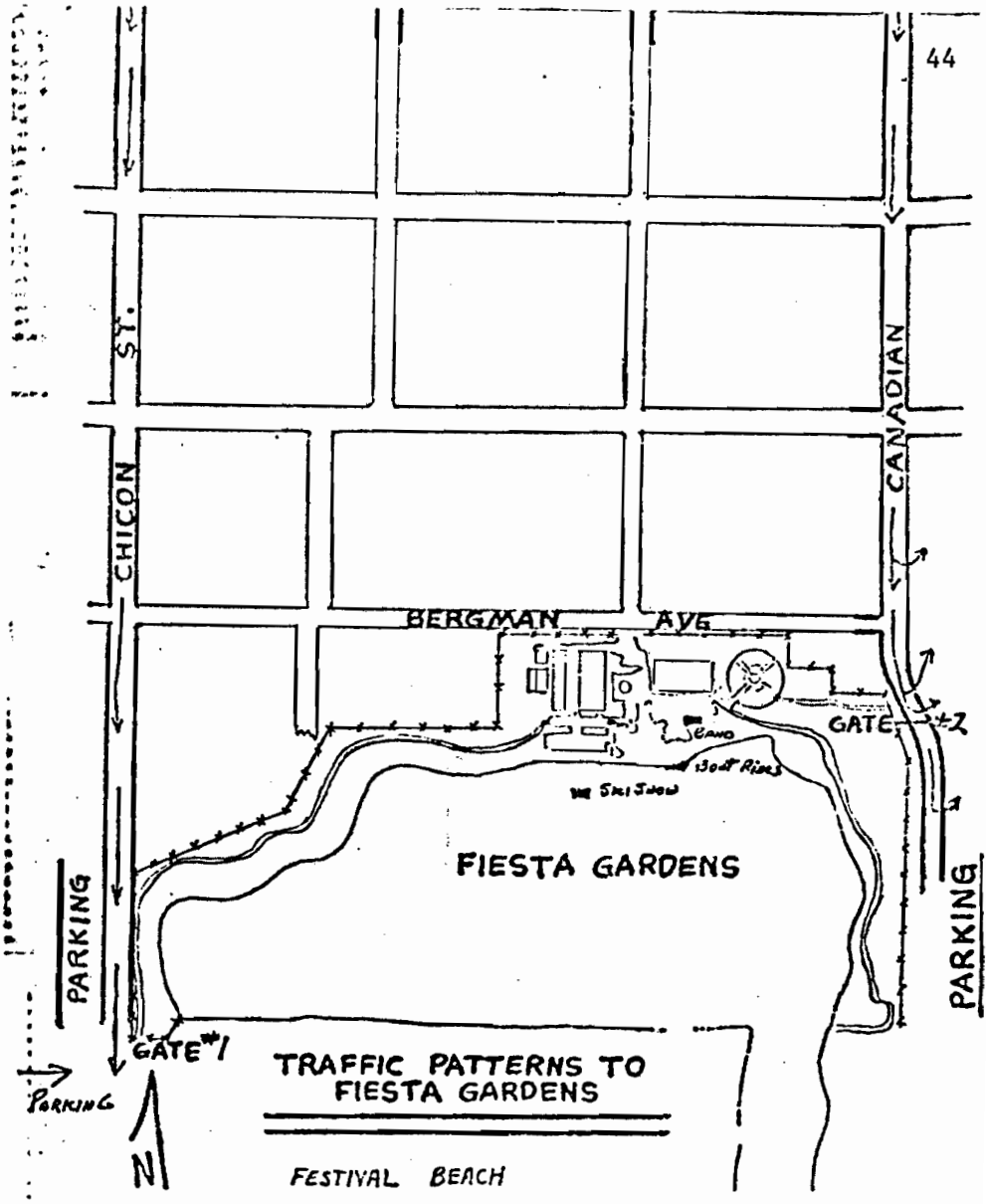
From North Austin to Fiesta Beach or Fiesta Gardens: The North Lamar, (1) Woodrow (5) and Holly (4) will take you right to Holly and Waller or Holly and Chicon.

The Balcones-Chicon bus will go to the Rebekah Baines Johnson Center, on Waller at the entrance to Festival Beach, or to Holly and Chicon.

From West Austin to Festival Beach: Take the buses to downtown to make transfer to the Holly (4) bus.

From South Austin to Festival Beach: Take any bus to downtown and transfer to the Holly bus.

From East Austin, the Balcones Chicon (24) route crosses all lines from East Austin going into town. The Woodrow (5) and North Lamar (1) from the Mentopolis area




AQUAFEST PARKING AVAILABLE — To expedite traffic flow and provide parking for Fest Night patrons, Aqua Festival officials have opened a large parking area east of Fiesta Gardens. To reach the area, go east on Holly Street and turn south on Canadian Street. As visitors near Fiesta Gardens they will be directed to the parking lot off Canadian Street. The east lot is closer to the area of activity in the gardens through Gate Two.

# Weekend Drag Boat Races To Round Out Aqua Festival

Austin's Aqua Festival will hit the waves Saturday and Sunday as the World Gas and Fuel Drag Boat Races round out the festivities of the Capitol City's 12th annual water celebration.

This year's Gas and Fuel Races are one of the more than 40 events comprising the Austin Aqua Festival, a water celebration held to call attention

slated, with both hydros and flat-bottoms to be represented.

There will be classes for both blown and unblown gas boats, as well as blown and unblown fuel boats in each hull design.

Classes are also planned for outboards, in both horsepower and hull design classes. Drivers of any class may compete in the circle races of five laps over a one-mile course and in special feature race.

The action will begin Festival Beach on Town Lake 10 a.m. Saturday and 1 p Sunday. Admission price is cents for children and $2 adults with a Skipper Pin, o for children and $3 for ad without a Skipper Pin.

A typical pattern of daily newspaper coverage of the transit project is shown below for Wednesday, August 8, in the middle of the exposure week:

| Content/Heads: | Newspaper: | Page: | Art: | Column Inches: |
|---|---|---|---|---|
| "BUS IS BEST FOR AQUA FEST" 1-col., refers to pp 6, 11 | American (A) | 1 | Cartoon, 1 col. by 3 in. | 3 |
| "The Easiest Way To SAVE FUEL Is To Leave The Car At Home" 2 col. refers to pp 9, 34, 36, 62. | Statesman (S) | 1 | Cartoon, 2 col. by 3 1/2 in. | 7 |
| "Festival Variety Has Food, Music", 2 col., pp AA 11, AS 34, Special nights at Fiesta Gardens, 6 p.m. to 12, "with the city providing buses to Fiesta Gardens until 10 p.m. to alleviate crowded parking conditions"; | American & Statesman | 11A<br>34S | | 16<br>16 |
| "A Sungoddess, 2 Queens Regal Festival Visitors", 3 col. | | 62S | 3 col. by 5 3/4 in. | 27<br>34 1/2<br>10 1/2 |
| "El Campo Coed Gets Aqua Title, 1 col., (one Black) | | 6A | 4 col. by 4 3/4 in. | |
| "Town Lake To Be Fairyland Friday" 2 col., night water parade, fireworks and "the best viewing spots" are Festival Beach and Auditorium Shores. | American & Statesman | 11A<br>34S | | 8<br>8 |
| "Weekend Drag Boat Races Round Out Aqua Festival", 3 col. with parking map,<br>"Aquafest Parking Available" near Fiesta Gardens, how to reach area, "traffic patterns", no mention of bus. | American & Statesman | 7A<br>35S | 3 col. by 8 1/2 in. map<br>map | 7<br>7 |
| "Aqua Festival Calendar of Events", 2 col. | Statesman | 9 | | 8 1/2 |
| | | | TOTAL COLUMN INCHES (both papers, 1 day) | 152 1/2 in. |

Sectional location on page not included. Total column inches includes pictures and other illustrations. With few exceptions, both dailies published the same material.

On the same day August 8, the two dailies published the following news content related to transportation, but not tied into the Festival or the transit project, and appearing inside for the most part. The headlines, a brief summary and the column inches are as follows:

> "Smaller Cars Hold Spotlight"--Detroit statistics indicate trend to smaller cars which use less gas. (Copley News Service, Statesman, 16 inches) The last paragraph said "And perhaps Americans are finally looking at automobiles as functional commodities rather than status symbols".
>
> "Freeway Considered Expendable", Page one Associated Press story on plans to tear down a California freeway because of ugliness. (4 col. picture, Statesman, p. A 10, 26 inches) On the same page, A 10, a small 4-inch story "Butler on Transit Committee", Austin's mayor on transit committee of U. S. Conference of Mayors, and recently returned from Europe; and "after his recent trip to Russia...Butler also has become a fan of mass transit..." and helped start "a new transit system here".
>
> "Throwing Out of Waste Lube Oil Another Environmental Question", pollution from used car oils, syndicated by Christian Science Monitor, in both American and Statesman, 56 inches.
>
> "Electricity For Transit Here Urged", a small one-column far inside Statesman story of 6 3/4 inches, on plans for a rapid rail transit in Austin which would replace some cars and "remove tons of air pollutants a day".
>
> "Bicycle in China Has Multiple Uses", 18-inch story from Agence France-Press wire service, American and Statesman
>
> "Natural Gas: At What Cost?", third in a series on the world energy crisis written by a professor of environmental sciences at the University of Virginia, syndicated by the Christian Science Monitor, page 2, Statesman, with 3 col. by 3 1/2 graph, and next to story on gas station competition, 30 col. inches.

The above gives some idea of the volume of news related to the energy crisis at the time and about transportation in general. The same day, both papers ran page-one stories on the start of demolition of a famous old city house to be replaced by a parking lot downtown. Historical groups and the mayor, governor and attorney general donated money to save it, but the Statesman headline said "Houghton House's End Called, Sad Day for City".

The remaining days of daily news content on the festival, the transit project and transportation/environmental news in general was much the same as Wednesday August 8 in type, volume and balance. Only a summary of each of the

other days follows, with content for both dailies (American and Statesman) combined in total column inches.

August 6

| Content: | Column Inches: |
|---|---|
| TRANSIT PROJECT: Cartoon on traffic congestion, "Schedule of Buses to Festival", "Austin Buses Solve Problem of Parking at Aqua Festival" | 61 |
| AQUA FEST: General promotion of events | 80 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: (limited to land, excludes air and sea) Three Statesman editorials on gas and fuel shortages and windmills; Traffic accidents: "3 Austinites Killed in Fiery Crash", page one and pictorial coverage. A 4 col. by 5-inch picture of "Foggy Haze" over University stadium as backdrop, with report that "auto engines and industry" caused the haze reducing visibility to 1/4 mile, according to National Weather Service; a 4-inch story in both dailies, p. 15 Statesman, and inside next to bus schedules to Aqua Fest in American with heads "Fumes, Dust Cause Haze Over Austin". | 132 |
| Total | 273 |

August 7

| | |
|---|---|
| TRANSIT PROJECT: Two page-one cartoons and a lead-editorial supporting the project | 12 1/4 |
| AQUA FEST; Queens, calendar of events | 91 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: Fuel crisis | 46 1/2 |
| Total | 150 |

August 8

| | |
|---|---|
| TRANSIT PROJECT: (See Detailed Breakdown) | 12 |
| AQUA FEST: | 140 1/2 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: | 190 1/2 |
| Total | 342 1/2 |

August 9

| Content: | Column Inches: |
|---|---|
| TRANSIT PROJECT: Page One cartoons in both dailies | 14 1/2 |
| AQUA FEST: Bands, dances, visitors, "Heritage Night", gun show, schedules | 300 1/2 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: federal mass transit aid, traffic in Russia, smaller cars, 61 inches on local traffic accidents with page one picture. | 164 |
| Total | 479 |

August 10

| | |
|---|---|
| TRANSIT PROJECT: Two page-one cartoons | 6 |
| AQUA FEST: Music night, calendar of events, bands, water parade | 162 1/2 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: Mostly syndicated, non-local news, EPA regulations, gas shortages, small cars, one letter to the editors on traffic safety; "Tomorrow's Shock in Energy Shortage" dealt mostly with cooking and refrigeration, not mass transit. | 110 1/2 |
| Total | 279 |

August 11 (Sat.)
(combined as one paper)

| | |
|---|---|
| TRANSIT PROJECT: One page-one cartoon | 3 |
| AQUA FEST: dog show, music, last two festival days | 115 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: "Butler Declares Next 7 Days Week for Saving Electricity"; Project cartoon enclosed by story on fuel crisis. | 84 |
| Total | 202 |

August 12 (Sun.)
(combined as one paper)

| | |
|---|---|
| TRANSIT PROJECT: Page-one cartoon | 3 |
| AQUA FEST: New festival officers, future plans | 75 |
| TRANSPORTATION/ENVIRONMENT IN GENERAL: Tips on how to save gas in magazine supplement; last paragraph in 61 inch story on city's Capital Improvements Program refers to new buses, passenger facilities, bus stop shelters, benches and route signs. | 38 1/2 |
| Total | 116 1/2 |

Column Inches

TOTAL DAILY NEWSPAPER CONTENT
August 6-12

| Date | Transit Project | Aqua Fest | Transport/Gen. | Total |
|---|---|---|---|---|
| August 6 | 61 | 80 | 132 | 273 |
| August 7 | 12 1/4 | 91 | 46 1/2 | 150 |
| August 8 | 12 | 140 1/2 | 190 | 342 1/2 |
| August 9 | 14 1/2 | 300 1/2 | 164 | 479 |
| August 10 | 6 | 162 1/2 | 110 1/2 | 279 |
| August 11 | 3 | 115 | 84 | 318 1/2 |
| August 12 | 3 | 75 | 38 1/2 | |
| TOTALS: | 112 | 964 1/2 | 765 1/2 | 1,842 |

The decision was made to add August 11 and 12 as one additional "day" for comparison since the two dailies are combined then and it was the end of the festival. Much of the content on transportation was printed in the context of pollution, fuel shortages and transit crises in general, and most of it came from non-Austin sources, but no breakdown is made of local and non-local here. The categories are distinct with little overlap.

It is noteworthy that the total inches for the festival (964 1/2) exceeded the combined total for the transit project and transit and environment in general (877 1/2). Also, the transit project peak was the first day, and the festival peak on August 9, but the most general transit news was on Wednesday, August 8, when a breakdown was made of a typical day's coverage. The relatively small amount of 112 inches on the project should not mislead one because it was usually located in choice page-one spots.

Results:

Telephone Calls to Customer Service Center

Telephone calls from Austinites seeking transit information from the Customer Service Center (CSC) were monitored five days from 8 a.m. to 5 p.m. on August 2 and 3 prior to the mass media and inter-personal community exposure

in the terminus area of South Congress Line 13; and on August 7, 8, and 9, in the midst of that exposure. To have waited any longer would have delayed this project even further and there was hope of producing results by the end of August. (Schedule changes based on the Spring on-board survey were not put into effect until August 19, so the monitoring did not involve that factor. Also, internal administrative calls and calls involving dispatchers were excluded.

How to tally the call-ins caused considerable debate in CSC and in the project offices, In order to get as much information as possible from callers, a trial tally sheet included information on origin and destination of callers, requests for schedules and maps, fare and bus stop information, complaints, routes involved (especially No. 13 being studied), sources of information on mass transit and media habits of callers.

That effort was deemed too complicated and time-consuming for the small CSC and project staffs, who would need thorough training and drilling on such an undertaking. Also, the retiring CSC director had to be out of town on a scheduled tally day and the new director-to-be was being oriented, and it was felt unfair to interfere with the CSC routine in a period of flux and adjustment and a limited staff to handle the normal calls, which would probably increase after the transit project. Also, the idea of gathering socio-economic data from callers was not popular since the ongoing Watergate hearings had perhaps made people more self-conscious and cautious about talking confidentially on the phone--to strangers and especially to a government agency. Also, the Pittsburgh study cited had already gathered some data on callers' backgrounds, and a larger project of CATS is designed to investigate this problem as well as a small summer project which shall be cited later.

It was finally agreed that a simplified tally sheet drawn up by the CSC itself would include only fare information, requests for maps and schedules, origin and destination information, inquiries about the South Congress Line, and about Aqua Fest.

In addition, it was agreed that the project could examine a distribution of zip code mailings from the CSC offices tallied in response to requests for mailed material. That might show what areas of the city were responding and if the test area was affected. Also the CSC agreed to share information on a busy signal phone check both <u>before</u> the public exposure to mass media and in the selected community and <u>after</u> that exposure. It was impossible to hope to

control all forces and factors and these monitoring points had limitations, but they appeared useful considering the time and resource limits of the project. The CSC reported immediately a "fantastic" increase in call-ins and inquiries about Aqua Fest in particular. Following is a tally on the calls:

TELEPHONE CALLS

TO

AUSTIN TRANSIT CUSTOMER SERVICE CENTER

August 2, 3 and 7, 8, 9, 10
8 a.m. - 5 p.m.
1973

Before Information Exposure

| Date: | | Origin Destination | Fares | Mail Schedule | South Congress | Aqua Fest | Totals |
|---|---|---|---|---|---|---|---|
| Aug. 2 (Thur.) | | 175 | 18 | 5 | 13 | 0 | 211 |
| Aug. 3 (Fri.) | | 191 | 14 | 7 | 12 | 0 | 224 |
| | Subtotal | 366 | 32 | 12 | 25 | 0 | 435 |

After Information Exposure

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Aug. 7 (Tues.) | | 232 | 17 | 9 | 3 | 21 | 282 |
| Aug. 8 (Wed.) | | 200 | 12 | 9 | 4 | 9 | 234 |
| | Subtotal | 432 | 29 | 18 | 7 | 30 | 516 |
| Aug. 9 (Thur.) | | 159 | 5 | 5 | 4 | 15 | 188 |
| Aug. 10 (Fri.) | | 189 | 11 | 10 | 10 | 31 | 251 |
| | Subtotal | 348 | 16 | 15 | 14 | 46 | 439 |
| GRAND TOTALS | | 1,146 | 77 | 45 | 46 | 76 | 1,390 |

Nearly 1,400 calls were handled, and outside of most for origin-destination (1,146), inquiries on Aqua Fest (76) was nearly second.

The peak in total calls reached August 7,8 was 516, and dropped back to 439 August 9, 10 as the Festival neared an end. Print media content showed a somewhat similar pattern, with the bulk of news on the transit project having appeared (84 inches) by August 8, with only 20 inches in the next two days. Letters to the South Congress

terminus also would have been received by Wednesday. The phone calls were made to residents later in the week and would not be represented by mid-week.

The slightly greater number of calls in most categories for the Thursday and Friday before exposure (than those in the comparable days after exposure) could be due to the intense exposure and intense call-ins in between.

South Congress line total inquiries decreased sharply after information exposure, possible because the public had received information and did not need to call; but it should be pointed out that the inquiries on that line could have come from other than the community terminus which was not monitored specifically for call-ins.

The South Congress and Aqua Fest tallies increased by daily percentages as media exposure week went on, while the other categories showed slight declines or remained stable.

Inquiries on fares showed a drop soon after the exposure and inquiries on origin-destination showed a large increase but that increase and those on mailed schedule requests were back to normal by the end of the tally period as exposure declined.

It should be pointed out that many callers thought there was a special bus to Aqua Fest sites because the newspaper cartoons had "Aqua Fest" printed on the buses. The project did not try to measure the response to an actual special transit offering such as special buses, but was trying to test customer response to existing bus routes and services; but it is understandable that the Austin Transit and city transportation officials wanted the chance to register patronage and revenue for special buses and for extra buses after regular 10 p.m. hours.

Results:

Busy Study and Zip Code Area Mailings

The telephone Busy Study showed an increase in calls based on selected hours in two-day periods before and after the transit project.

| | |
|---|---|
| March 15, 16: | 617 calls |
| August 20, 21: | 1,001 calls |

It should be noted that ATS "house" and administrative calls are not separated from customer calls on the tally sheets. Also, the August dates came immediately after the August 19 announcement and distribution of revised bus schedules, and

could have accounted for some of the increase. The CSC tally cited did not cover the August 19 schedule changes.

The mail requests covered the period up to August 13 with 498 mailings for the first "Route Changes" and on August 29 for a second mailing of 588 "Route Map and Schedules" to the same 498 plus 90 additional callers not charted on the zip code illustration.

Both the telephone busy study for the Austin Transit System and the zip code area chart should not be interpreted as conclusive evidence that the media exposure and inter-personal community information exposure caused the increases, but the transit project could have been a factor.

It is interesting to note that the largest number of mailed schedule requests mailed August 13 came from Zip Code area 78745, which is the same area which includes the South Congress terminus test area. Those 54 mailings however include a second large area in Southernmost Austin with new bus services which include the terminus lines for routes 10 and 12. One might also note in the zip code mailings that the least number of zip area requests came from the University of Texas zip 78712, which might indicate the predominance in usage of the university's shuttle buses. The breakdown on the additional 90 mailings of August 29 would be helpful for interpretation.

Results:

Survey of Community Exposure to Transit Information

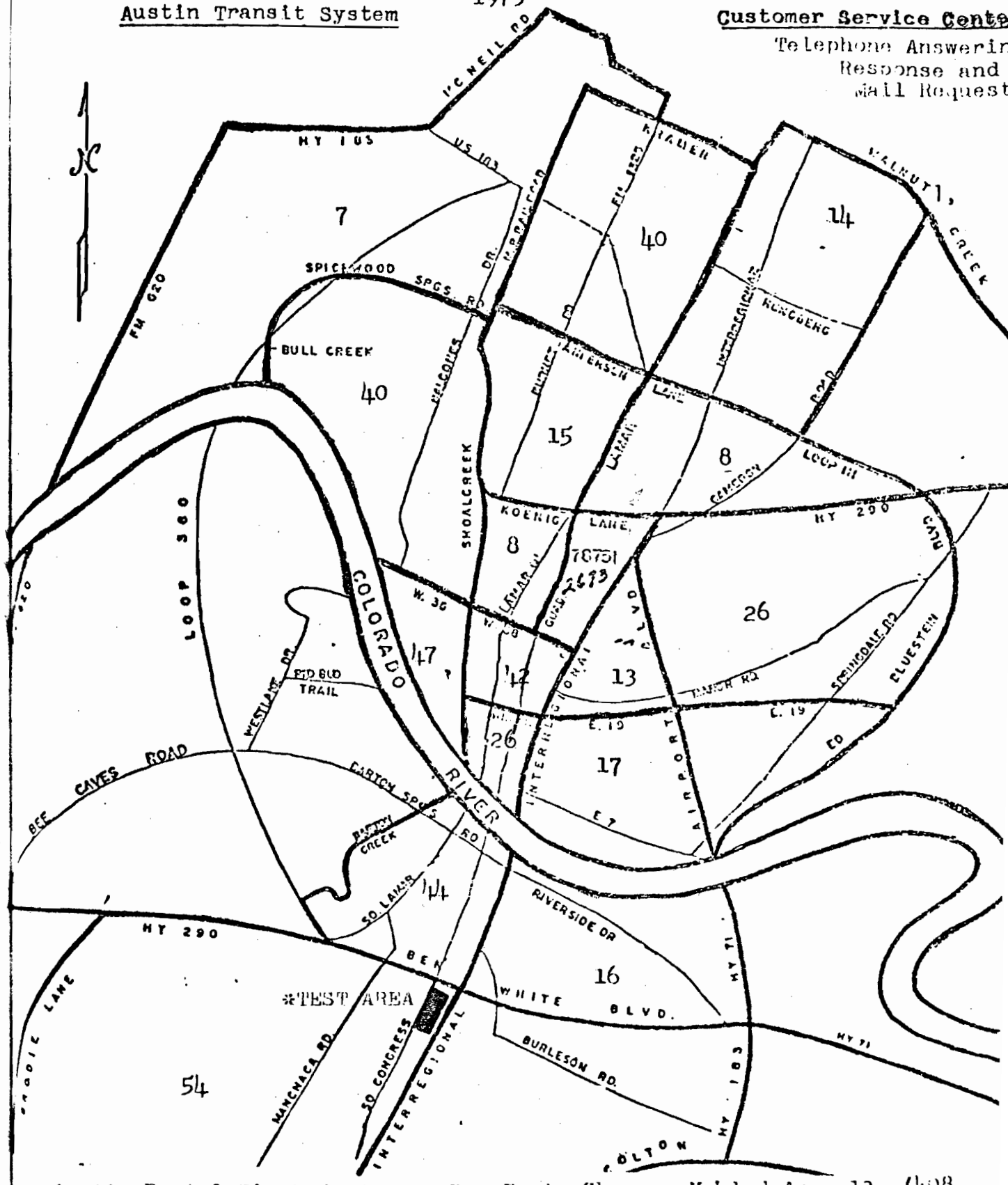
After the last CSC telephone tally August 10, and after the last mass media coverage of the transit project on Saturday and Sunday August 11-12, there was an array of public campaigns and news on environmental crises which it was thought might affect the remainder of August ridership of city buses. These were not known when the survey was planned and the mailings and telephone calls were organized. The survey of the South Congress terminus was delayed until around the first week of September in order to (a) detect any impact of the media saturation on energy and conservation habits in bus ridership; (b) to give time to those contacted late in the week with the phone information and persuasion disseminated by the transit project; (c) to get a chance to perhaps measure impact and reaction to planned radio-TV coverage of new schedules after August 19 since they had not fully covered the Aqua Festival transit experiment; and (d) to

# MAILED REQUESTS FOR MASS TRANSIT INFORMATION
August 13, 29
1973

**Austin Transit System**

**Customer Service Cente**

Telephone Answerin
Response and
Mail Request




Austin Postal Zip Code Areas: Bus Route Changes Mailed Aug. 13 (408
Route Map and Schedules Mailed Aug. 29 (5

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 78701: | 26 | 78722: | 13 | | | | |
| 78702: | 17 | 78723: | 26 | 78752: | 8 | 78759: | 7 |
| 78703: | 12 | 78731: | 10 | 78753: | 14 | P.O. Box: | 17 |
| 78704: | 14 | 78741: | 16 | 78756: | 8 | Out of City: | 1 |
| 78705: | 12 | *78745: | 54 | 78757: | 15 | Out of State: | 1 |
| 78712: | 5 | 78751: | 10 | 78758: | 10 | | |

Note: 90 additional pieces Aug.
not yet charted by zip cod

allow a slight delay to enable the project to obtain the final August ridership from city transportation authorities.

Not only had Austin residents been exposed to the news of the new buses in January, the on-board survey in the Spring, the distribution of schedules and maps door-to-door by postal authorities in selected zip code areas, and the early August transit project on Aqua Fest riding, but also as that project ended, it was surrounded by news of the city's energy crisis and the "Cooperate at 78" campaign to reduce air conditioning power, plus plans for an August 13-19 "Save Energy Campaign" called "Doing Our Best Week".

The campaign was supported by the Jaycees, parks and recreation department, and the Electric Utilities Department. The theme of "We Are Cooperating" and "Let's Work Together" was bolstered with conservation buttons, poster contests, color slides, and questionnaires in 100,000 electric utility bills as well as energy-saving reminders. The mayor hoped the campaign would provide a "benchmark" and guide for city conservation of energy. (Mass transit usage was not part of the focus.) The Austin media gave it publicity. KVUE-TV prime-time newscasters took off their coats on TV to replace air conditioning energy needed to stay cool and to symbolize media cooperation. (In Portland, Ore., during a late August power shortage there, KGW-TV moved its daytime news production operations outdoors to utilize natural solar light as a power substitute and to save an estimated 135 kilowatt hours daily. In Spokane, a media campaign involved a slogan contest called "Kill-A-Watt".)

Some Austin "letters-to-editor" writers commented that the save energy week in Austin was preceded by the city-sponsored World Gas and Fuel Drag Boat Races and other Aqua Fest races using lots of gas; and that such festival sports events used fuel while plans to keep open the air-conditioned State Library on Saturdays were dropped because of the energy crisis. The Austin Energy Committee said it was "unfortunate" that they were not consulted about the mayor's save-energy campaign until a half-hour before he announced it in a press conference.

Despite this criticism, the campaign brought a 14% reduction in electrical consumption, 4 to 6% above the May-June-July energy reduction effort. The poster contest had 100 entries and the Jaycees made plans to continue such a conservation program.

More media environmental, conservation and mass transit content in the media in the period included: news of "Better Water For Texas Week", for which the governor urged concern for "facing the challenge of urbanization and

and pollution" by the water industry, August 12-19; Los Angeles's new Mayor Tom Bradley on national TV August 13 urging mass transit; the last of a 12-part energy crisis series in the Statesman, August 21; and a comprehensive, 2-part series on national mass transit systems by Frank Macomber of the Copley News Service, who wrote about mass transit as "people movers" and a means to reduce smog and lessen the fuel shortage, which was published August 22-23.

The series appeared in the midst of the week of August 20-26, when Austin bus schedule changes were made. (The South Congress line was not involved.) Radio-TV at that time increased its news on mass transit. The Austin American Statesman on Saturday, August 18 had carried a long story on page B-1 on all bus schedule and route changes the next day, August 19, but no map was included. Coincidentally, the same week, Austin's summer heat reached its peak with 100 degree temperatures, and there were editorials and cartoons on the heat, including one on August 24 on "how to avoid sunstroke and heat exhaustion". There were also news and pictures on stagnant haze in the city. (It was not called smog.)

Such media content might have caused a few citizens to ride air-conditioned buses. Other media content on transit and the environment included: a story by the American's automotive writer, T. Q. Jones, that "Fewer Options on Autos Can Ease Gasoline Shortage", (driving tips but no mention of mass transit usage); news of a new city law allowing cars to turn right on some red lights effective August 27; and on September 4, NBS presented a three hour program on "The Energy Crisis".

The South Congress terminus area residents were interviewed in early September via a telephone questionnaire. The aim of the survey was to find out if residents used city buses, if they recalled recent information about using them, if they rode the buses because of that information, if they recalled the phone number of the Customer Service Center of the Transit System or the prominent newspaper cartoons and if they had certain information preferences on transit information.

The phone was used because of the small project staff, slowness in the mail and low response to mail questionaires, and because of the heat, loose dogs, and pressures to complete the project soon. Weekends and evenings roughly between 8 and 9 p.m. were considered convenient to respondents and the time when the whole family might be home. Whoever answered was accepted as a respondent for the household (except for obviously small children). The

Questionnaire

SURVEY OF COMMUNITY (S. Congress-13) EXPOSURE TO TRANSIT INFORMATION

1. Do you (or any member of the family) ride a city bus ? Yes _____ No _____

Why ? _____

2. Did you recently get any information urging you to ride the buses? Yes____ No ____

Which of the following provided you with information ? (if Yes)

Which of the following would you want to provide you with such information ? (if No):

Would you ride the bus if you got such information ? _____

_____

Newspaper ____
Radio ____
TV ____
Letter ____
Phone ____
People ____
Other ____

3. Did you side the bus because of receiving this information ? Yes ____ No ____

4. Why ? _____

_____

5. Do you know the phone number of the Austin Transit System of where to get it ?

_____

6. Do you recall any page one cartoons on using the bus for Aqua Fest ? _____

_____

7. Other Comments Volunteered _____

_____

_____

minimum of one family rider of the bus (frequently or sporadically) constituted the household as a bus rider.

The interviews were very brief, with respondents assured that the information was confidential, not personal, and in the public interest. No call backs for "no answers" were planned originally. They were not questioned about the postal service transit information distribution in the Spring because of the volume of material to which they had been exposed in the meantime. No socio-economic data was solicited because the questionnaire needed more refinements, the interviewers needed more training (what few the project could accommodate), and the sensitivity to high-pressure phone sales in Austin and the Watergate hearings had apparently left some public objection to being quizzed on the phone by a stranger. The Austin Transit System and the University of Texas were affiliations used by interviewers to establish phone credibility with respondents.

The South Congress terminus "universe" was taken from the Polk and Cole city directories. A total of 161 residences were initially selected as targets of inter-personal exposure to transit information: 113 for the letters; 48 for phone calls; the remainder of the approximately 425 residences exposed to neither, but potentially only to the mass media. The letters had been mailed August 5 for reception during the media campaign (August 6-12). They contained much of the same information as did the letters to the media and the phone calls which were made somewhat later because of staff time schedules. Only three letters were returned because of "Moved" or "Address Unknown". A little over half of the phone exposure group was reached initially, but call-backs were used to increase the size of the response.

In the sub-sample for the interviews, 32 were chosen (again by random numbers) for letters (XL); 32 for non-personal exposure and probably mass media only (XN); and 14 were reached who had been exposed to phone communication (XP). The total was 78 out of approximately 425 residences. Gathering the phone sub-sample was especially difficult and disappointing. There were phone "hang ups", "no answers", changed phone numbers, newly assigned numbers, "wrong numbers", summer disconnections, etc.

The results of the questionnaire are presented in somewhat summary form without precise, sophisticated statistical percentages, mainly because the survey design lacked the procedural control and interviewer training which a larger, more extensive project could have supported. Also, this survey was

seen as exploratory rather than a conclusive effort. The findings are based on usable responses from 53 households in the South Congress terminus (See MAP), who received letters (23); phone calls (8), and who received neither (22).

There was no breakdown of streets or of the area marked with a red X on the mailed schedules. Also, the geographically and socially distinct small area described to the north of the major residential cluster is included with the latter.

COMMUNITY RESPONSE TO TRANSIT INFORMATION
(53 of 425 Residences)
South Congress Terminus

| Questions: | Exposure Groups: (Inter-personal Info.) Telephone (8) | Letters (23) | (Mass Media) Neither (22) | Total (53) |
|---|---|---|---|---|
| **Bus Ridership-** | | | | |
| Do you ride the bus? | | | | |
| Yes | 5 | 6 | 7 | 18 |
| No | 3 | 17 | 15 | 35 |
| Did you recently get transit information? | | | | |
| Yes | 5 | 11 | 9 | 25 |
| No | 1 | 7 | 10 | 18 |
| No recall | 2 | 5 | 3 | 10 |
| What was source of that information? (times mentioned in response) | | | | |
| Newspapers | 6 | 6 | 10 | 22 |
| TV | 2 | 9 | 5 | 16 |
| Letters | 1 | 12 | 0 | 13 |
| Radio | 2 | 4 | 4 | 10 |
| Phone | 5 | 0 | 0 | 5 |
| People | 0 | 0 | 1 | 1 |
| None | 0 | 0 | 2 | 2 |
| What source would you prefer for transit information? (times category suggested) | | | | |
| Letters | 3 | 5 | 2 | 10 |
| Newspapers | 4 | 1 | 4 | 9 |
| TV | 1 | 4 | 3 | 8 |
| Phone | 0 | 2 | 2 | 4 |
| Radio | 0 | 3 | 2 | 4 |

| | Telephone | Letters | Neither | Total |
|---|---|---|---|---|
| Did you ride a bus as a result of receiving recent information? | | | | |
| Yes | 0 | 1 | 0 | 1 |
| No | 7 | 11 | 11 | 29 |
| Would you ride if you got information? | | | | |
| Yes (maybe) | 1 | 3 | 7 | 11 |
| No | 3 | 9 | 5 | 17 |
| Do you know the phone number of the Austin Transit CSC or where to find it? | | | | |
| Yes | 1 | 12 | 6 | 19 |
| No | 7 | 11 | 14 | 32 |
| Do you recall page one cartoons on Aqua Fest? | | | | |
| Yes | 4 | 8 | 10 | 22 |
| No | 4 | 13 | 10 | 27 |

Only one respondent indicated that information brought about bus ridership and that one was not sure of the cause! Those who said they would not ride if they got information were definite in their response. Those who indicated they might ride were wavering, skeptical, and unsure. For some odd reason, only those contacted by phone information rode more buses. Most persons informed by personalized information channels recalled receiving it, while those exposed only to mass media were unsure and confused in their response.

Those informed by mass media and telephone recalled newspaper information while letter recipients recalled letters most often. The newspaper was recalled as a source of transit information by most of those not exposed to personalized communications on transit. (Several of those volunteered that they did not subscribe to or buy newspapers.)

On news source preferences, phone information recipients preferred letters and newspapers rather than phones, oddly enough, while letter recipients preferred letters and TV; and those who received their information outside of personal communication preferred newspapers and TV in that order. Note that those not informed by telephone had stronger preferences for being informed by phone than did phone information recipients. (Phone calls may have annoyed

those who got them twice, and those who received them only once may have been flattered.)

In regard to the phone number of the Customer Service Center, more than half of the mass media recipients who did not receive letters of phone calls did not know the number or suggest where one might find it, despite its prominence in the page-one cartoons. Letter recipients were equally divided, but phone recipients by the largest percentage failed to know the CSC number or where to find it. Most of the "Yes" responses on the CSC number and service added that they knew where to find it "if needed", and that it was in the "yellow pages", in the schedule or in the letter they had received. One person had said she had clipped the bus schedules from the newspaper.

Recollection of the Aqua Fest cartoons was evenly divided among those in the phone and mass media group, while more than half the letter recipients did not recall the cartoons. When there was a recollection of the cartoons, it was stated definitely that they appeared in the newspapers.

The least comments were volunteered by those informed by phone, but that was probably due to interviewing time and techniques and problems with that part of the sample. Half or more of the respondents in all three categories volunteered their ownership or use of from one to three cars in the household, and stated that was the main reason for not using the buses. These non-bus riders also volunteered such information as: "no need" for bus; need car for job (carpenter, policeman, insurance salesman, used car dealer etc.); buses are not convenient, don't run to places where riders need to go, and don't go to night jobs or to shopping centers; too many transfers, job requires tight time schedule etc. Some said they used car pools. A few said there were no buses nearby, that they had never been on a bus or that there was no service when they moved to the area so they got into the practice of using a car instead.

Possible users indicated that they would ride buses only under "special circumstances", "weird situations", "only in a crisis", "only as a last resort", (such as having to go downtown or during last winter's ice storm when many cars were stalled), or when the family car breaks down or is in other use.

Bus users commented that they used buses for school, for going downtown, for children (both needed and fascinated by buses), and because they already rode and were in the habit.

Comments from non-bus users revealed a combination of guilt over the fuel shortage being discussed; but pride in the buses and the expectation that such

service should be provided. Many such non-users appeared highly aware of the bus service, the new extension of times and routes, the frequency of "front door" service, and they hoped the service would be retained although they do not use it. Comments included: It's "OK for those who need it", "great for old people" or for those who want to "go downtown"; "good for some people but not for everyone", "It's nice they extended service out here", "nice to know it's there if needed", and "We're proud to have it in our neighborhood".

Extreme caution should be exercised in drawing conclusions from this small study on community reaction to transit information dissemination. Why they reacted as they did may be related to the socio-economic characteristics of the community and no data on such was gathered in this localized study. Some general city data was gathered in mid-June of 1973 in Austin by a group of students in a class on marketing and statistical analysis taught by Dr. Karl Henion, associate professor of marketing administration at the University of Texas. The results of the study are included here because they relate to this project.

The student project examined the differences of Austin city bus riders and non-riders with a concern for possible future recommendations for marketing and promotion strategies. They conducted personal interviews a few weeks before this information project was into the field, and they interviewed riders in peak times (7-9 a.m. and 4-6 p.m.) on four routes converging on the downtown area: North Lamar No. 1, Manchaca No. 12 to the Southwest of the city, Chicon-Balcones No. 24 to the Northwest, and E. 19th No. 18 to the East. (Note that Southeast Austin covered in this study was not included, and the E. 19th, No. 18 bus is the other end of the South Congress connecting line. The Manchaca line, like South congress, is in the growing, new South part of the city.)

In the student survey, non-riders were found during the noon hour in the downtown Austin area, mostly employees who work in the complex composing the central business district, state capitol and university areas. They interviewed about 100 equally divided between riders and non-riders and sought out information on use and type of autos, income, sex, education, age, distance from buses and work and time needed to get there, reasons non-riders don't ride and reasons riders do ride.

The report, titled Transit Characteristic Group by Vince Nazzaro, C. Wayne Patterson, Terry Smith and Lelia Van Norden, is summarized as follows:

Bus riders in Austin, based on this sample, have less education, fewer cars, lower income, are older, and live closer to work and take more time to get there than do non-bus riders. Of the riders, 52% never attended college, 48% are over 40; and only 20% of non-riders are over 40; 42% earn less than $10,000 per year (compared to 68% of riders), and 68% of the riders live within two blocks of a bus route while 38% of non-riders live that close.

Both riders and non-riders see convenience, speed and enjoyment as important factors in mass transit, and the only transit advantage of significant difference between the two groups' attitude toward mass transit was lack of other means of transit. Bus riders felt pollution and the energy crisis to be more of an advantage than did car drivers.

On bus disadvantages seen by both riders and non-riders, only accessibility to routes and transferring were significant differences in attitude. Convenience and getting to work on time were not differences of significance. Non-riders felt weather was a bus disadvantage more so than riders, but others' opinions of mass transit riding were of less import to non-riders than to riders. Of non-rider, 12% were not aware if they lived within two blocks of a route.

**Conclusions:**

Impact of Information on Usage of Mass Transit

It may be that public awareness of mass transit services and persuasion that auto-users try buses may not necessarily always cause an increase in mass transit usage.

In Austin, it is true that usage of the bus system has increased about 30% since the new buses and new routes were introduced in January 1973; and revenues have increased, but in this study, efforts to get one small neighborhood to use the new buses failed to apparently convince many people to ride. Efforts to inform city-wide residents about transit services and persuade them to ride might have contributed to the increasing city-wide patronage of city buses. Comparative ridership figures show the general increase of riders of the Austin Transit System:

| | 1972 | 1973 |
|---|---|---|
| July | 252,321 | 352,188 |
| August | 279,645 | 364,849 |

The 12,661 additional riders in August, compared to July, might have been due to the Aqua Fest promotion and the energy crisis in part, but that is hard to prove. More discouraging is the fact that ridership on the South Congress Line No. 13 decreased in a five-week period during this transit information

project and the greatest dip came during the August 6-12 Aqua Fest media promotion and the intense saturation of the line's terminus with personalized information and persuasion about mass transit. (Of course, the terminus is only a small part of the total line running south from downtown.) Ridership is as follows:

Bus Riders on South Congress Line

| | |
|---|---|
| July 30-August 5 | 4,040 |
| August 6-12 | 3,800 |
| August 13-19 | 3,830 |
| August 20-26 | 3,890 |
| August 27-September 2 | 3,900 |

Austin transportation planning engineer Bill Bulloch reported that these figures were approximations. The dip in riders could have been due to summer vacations, seasonal variations, or to the reaction against excessive information on that line and other routes. For example, the intensity of information saturation in the terminus area is indicated by a look at Rowland Drive, where all 26 residences not only received the potential mass media exposure, but got 13 letters and three phone calls. Only one rider resulted from the community transit information project, if the questionnaires are any indication of changes in attitude and habits.

On the more positive side, the transit information project probably increased public and mass media awareness of the Customer Service Center, if the tally of call-ins is any indication. The news media are perhaps more aware of the developing services of the CSC and of mass transit in Austin, and internally, the CSC may have gained more legitimacy as a valuable facility in the eyes of both transportation officials and city hall, who may see the value of more money, personnel and authority for the communications aspect of transit services. Such a "breakthrough" for the CSC might enable it to develop a professional public information program with some autonomy in city government and as recommended in the October 1972 transit studies.

Externally, the credibility of the Customer Service Center has probably increased as a result of this project. Public response to it during the summer indicates a high degree of citizen participation in city mass transit, and even if they may be largely the committed rider already using the buses, that group is essential to the continuing increase and retention of ridership.

The telephone, mail and other personalized communications are probably essential to both information and persuasion on mass transit. Even though

the small neighborhood in this project did not apparently rush to use mass transit, it did perhaps gain a fixed image of the CSC and where they can go if they want to ride and where they can get information to help them. Also, their impression of the special uses for city buses was probably increased through the page-one cartoons on Aqua Fest, and this receptivity to special charter or other bus usage might be expanded with a combined mass media promotion (as with Aqua Fest) and individualized information service by the CSC, and of course extra and special buses with special destinations and origins.

This combination of mass transit and mass media and individual transit needs and individualized information channels may be effective, if this study is any reliable indication. Massive changes in transportation habits are probably as hard to detect as they are to alter. In this case, the project did disseminate information on buses with the aim of increasing their usage. That bit of further education may add to the total impact of news about environmental crises related to transportation in general. Which bit and which piece of information in the deluge of content caused any change in transit attitude or habit is hard to prove, but one might observe some national trends in transportation, information and the environment which were reported during this project:

> In June it was announced that six major oil companies would phase out their broadcast advertising on selling gas, and Mobil Oil said it would direct its efforts to public information on the conservation of fuel. Company advertising programs are moving toward urging the public to stop pollution, reduce traffic congestion and save energy.
>
> The Bicycle Institute of America reported that relief of traffic congestion and reduction of pollution may be a factor in bikes outselling cars. There were an estimated 23.5 million bikes in 1960 in the U.S. and 60 million in use in 1972 (with 90 million riders) and 18 million more expected to be sold in 1975. A federal provision for bikeways was included in states' share of federal highway funds.
>
> In early September, NBC reported that news and publicity in May and June on the national fuel crisis had apparently caused an increase in summer usage of Amtrak by more than 10%, with some special runs up form 36% and 100%. Amtrak's new information and advertising approach may also have been a factor.
>
> Public interest in smaller cars increased in late June after fuel crisis news reports and publicity of the EPA regulations as car dealers in Austin and elsewhere got requests for information about the smaller autos. In mid-September, General Motors reported a record 2.6 million in car sales, but it also reported the market had undergone a marked change toward smaller cars since the news stories on fuel shortages.

The impact of information on mass transit usage is tied to general social values and public education, to the various research needs in communication and transportation, to the search for effective strategies for action, and to those future action and research projects which will attract both support and public understanding. Recommendations in these various areas are made on the following pages, with this particular project as a point of departure.

Recommendations:

Public Education, Social Values and Transportation

No one short-term project is going to find the answer to the question of how to increase usage of mass transit. Special transportation writers and reporters in the mass media could do more to outline and explain the total problem and piece together the fragmented news bits and pieces, not always comprehensible in the latest reported traffic accident or smog alert. Journalism could better educate if it analyzed the living tissues of community transportation rather than perform the journalistic autopsy of crisis reporting.

The press might become more critical and skeptical of public and private projects which may add to the growth but not the health of communities. Boosterism (as with Metroplex or BART) may prevent open debate on the merits and consequences of projects before they are built. The communications media might point out how specific news events relate to mass transit usage, might evaluate the possible social and physical costs of action, might anticipate possible alternatives, and might thereby tally and audit the gains and losses in transportation trade-offs.

The press must relate land use to transportation. Expansion of downtown parking lots often is not seen in relation to high density and mass transit. Staggered work hours may affect express bus runs and carpools, and the latter two may affect other forms of mass transit. Night football, TV, parking lots, communications and the energy crisis have an interrelation not always explicit in the typical, short news story, which lacks comprehensive treatment. Smog is not only a news picture of the sky, but a news story on transportation and land use.

In addition to structural reorganization in the newsroom, the mass media should try to re-educate the public to new energy habits, and to new ways of looking at the community. David Freeman, director of the Ford Foundation's

energy policy project, has said the idea of 300-horse power autos taking people to work each day "seems ridiculous even for a king". He calls for more use of mass transit, bikes, closed circuit TV to replace the need for travel, and even systematic hitch-hiking, if it is made socially acceptable.

Such innovative thinking may not excite the traditional police beat reporter writing his routine accident story on blood and gore, but the larger urban issues and the restrictions on private transportation are approaching. Although a Texas woman's group opposed a picture of Amtrak in a school textbook because it shows transportation as subsidized and socialistic, Republican Senator Lowell Weicker of Connecticut plans to introduce legislation in 1974 requiring nationalization of all urban mass transit systems. President Nixon has urged reduced driving speeds and has directed that violators of the clean air control acts be denied federal grants, contracts or loans. A Memphis judge in federal district court recently ordered that city to furnish scarce gas for buses to execute the court-ordered school bussing for de-segregating schools. So, it may be that the long cherished American habit of physical mobility without restrictions may be near an end. Austinites who are convinced the auto is convenient and that city buses are "nice for those who need them" may be delaying a date with transit reality. "We're beginning to question the convenience of the car. What used to represent freedom, independence and privacy has now come to be associated with air pollution, noise, congestion and delay", in the words of Marian Wells, research director of the American Physical Fitness Research Institute.

Now regulated and controlled by exhaust devices, electronic gadgetry, ignition interlocks, scolds, buzzers and lights, the auto may be here to stay as the dominant form of transit, but if it does, it may disappear as the symbol of status and independence. Its social and environmental costs have only recently made the news headlines. George Watson of the Washington Post noted that the federal government "not corporate advertising nor an unfettered marketplace... is at the drawing board" of the auto which "not too long ago (was) the very symbol of corporate and personal independence."

EPA deputy assistant director Eroc Stork told a General Motors-sponsored environmental seminar inJuly that "No longer is it enough to satisy the amorphous preferences of the marketplace--preferences that can to a large degree be manipulated through modern advertising", but he warned that "regulation of the auto industry is here to stay. You might as well learn to live with it".

Not only citizens, but advertising agencies and newsrooms may also have to learn new images of transit and may have to accept more social and governmental control over transportation.

Already, safety regulation of the private auto has added more than $300 to the price of an average car since 1966, but a recent Gallup Poll shows that 7 of 10 drivers still oppose laws requiring the use of seat belts and only three of 10 use them. One Austin driver, complaining about the inconvenient new "seat belt ignition interlock system" as an "infernal apparatus" wrote to an Austin daily newspaper asking in anger "How in the world can Congress permit the Department of Transportation to imprison an American citizen in his own multi-thousand dollar auto?"

He urged other drivers to write Congress "demanding the mandatory (1974) installation be abolished". Other Austinites wrote to the newspaper protesting the belts as "traps" which are "imposed on the public" making them "imprisoned in a government-dictated apparatus." Despite such protests on transportation regulation and control, seat belts, compulsory car pool, new speed limits, etc. may look mild by the 1980's.

T. C. Helvey, professor of cybernetics at the University of Tennessee, predicts mini-computers will be installed in cars to enforce speed limits and to monitor driver and road conditions with special metal license plates (for driving at high speeds) inserted into a slot to start a car. A central computer would monitor driver performance and a traffic ticket might arrive in the mail like a phone bill.

Already the Arizona Highway Commission has approved reduced speed limits to curb pollution and save fuel. The Texas Highway Department operates electronic signs on Houston's Gulf Freeway advising motorists of traffic conditions and accidents ahead, and computers will also measure traffic conditions and rate traffic movement for drivers.

At the national level, Washington fears of a cold winter and losses of Mid-East oil supplies have brought stand-by plans for gas rationing and President Nixon's new Citizens Advisory Committee on Environmental Quality has issued a 64-page booklet urging use of mass transit and car pools instead of the "love affair" with the "thirsty machine" of the auto. Treasury Department officials have set an example by reducing office room summer temperatures to save air conditioning fuel, and Assistant Secretary of the Interior Stephen Wakefield

told the Independent Petroleum Association of America in Houston that solving the energy problem means "higher costs, lower standards, stretched out goals and disaccommodation of our customary habits."

The federal government is busy testing new transit hardware, but technology alone may not resolve the crisis. Transportation consumption patterns may have to be changed. Already, some auto pollution devices may be adding pollutants to the air, as millions of autos send out fumes as they idle at stop lights in American cities. Dow Votaw, a professor of business administration at the University of California, warns that corporate talk of pollution control, while lobbying against it, may cost business the public confidence as with the SST defeat. (General Motors, for example, now is designing a dual-mode transit system for cities by 1980, with a $500,000 grant from the Department of Transportation to plan it.)

Columbia University sociology professor Amitai Etzioni in the October 8 Nation points out that there must be positive rewards for less auto use, like "convenient, inexpensive and reliable alternative modes" of transit. He says "there is no hope for a positive transportation policy until the citizens at large, mobilized by various civic groups, actively support policies which will provide people with attractive alternatives to driving." Such a mobilization will require intelligent use of the mass media in detecting public attitudes and selling new transit modes.

## Research Needs and Transit Strategies

The problems of community transportation might be solved if the best knowledge of communications and transportation experts were combined with citizen participation and intelligent civic wisdom.

In order to approach mass transit usage problems wisely, the rather narrow limits of the present project could be expanded to the larger view beyond the short-run goal of "selling" transit hardware to that of using new electronic techniques to link transit to the citizen with slosed circuit TV, to utilize information call boxes, and provide dynamic and speedy transit information. Research in such areas could go beyond the strategies of marketing, persuasion and publicity, and detecting what the public will "buy"; and relate eventually to the use of communication as a substitute for transportation and the development of new architectural and inter-personal communications experiments in new towns and in the older cities.

A larger communications component should be incorporated into the CATS transportation projects and made a part of important conferences and seminars, included as part of any new appeal for more time, money and personnel to be funded by prospective future supporters, whether university, government or business. The communications aspects of transportation are more than "patent medicine" and promotion for ailing mass transit systems.

Project 1

Austin might be considered as one of the test cities for an experiment with ETA (Estimated Time of Arrival) information call boxes, which could provide rapid information visually on display screens (time, schedule and direction of bus travel.) It would require an AVM (Automatic Vehicle Monitoring) system, computer inputs and a sophisticated central control system to handle a dynamic information program rather than the traditional static systems. Such a project has been outlined and recommended by the Committee on Telecommunications of the National Academy of Engineering.

The feasibility of a decentralized city like Austin for such a project would have to be examined fully. The developing Customer Service Center of the Austin Transit System and the new public information program might be the focus of such an experiment. The emerging experience of the Austin Police Department's new use of data processing and telephones to quickly dispatch police service to areas of the city might be observed as a local model. The relevance of city bus service responding quickly to passenger needs, origin and destination might be applicable. The police project is financed in part by federal money through the Criminal Justice Council. The system would show central headquarters the exact location of each police car in each of the city's four sectors plotted on a central map, where service calls and requests will be disseminated for patrol action quickly.

Another possible project might relate to the potential use of the new Austin Community Television (ACTV), cable channels 2 and 12, for interaction among mass transit officials and specialized mass transit audiences to enhance citizen participation and provide feedback to officials. (Such an interaction may have been a part of public confusion and opposition to the Houston mass transit proposal.)

A rather elaborate citizen-participation project to use TV for "town meetings" was conducted through the New York Regional Plan Commission and

aided through funds from TV stations, corporations and the Department of Housing and Urban Development. The $1.5 million project involved the production of films on mass transit and other urban problems, which were shown before small home discussion groups with viewer-participants having a computerized ballot card to "vote" and express viewpoints on costs, alternatives, trade-offs etc. to public officials. Local newspapers in the cities involved gave advance publicity and some printed ballots for the "referendum" type project.

Project 2

Before further promotion of Austin mass transit, there should be more information assembled on the clusters of potential riders, their needs and attributes, their media usage and habits, and what information and persuasion might be critical to changes in local attitudes and mass transit habits. The Davies, Alpert and Hudson project on modal choice is investigating these problems. A related investigation might attempt to discover the special mass media habits and the mass transit habits of Austin minorities: racial and language (Blacks and Mexican-Americans); age (elderly and youth); middle class (young executives, businessmen and professionals); and perhaps even sex minorities (women and males in relation to autos and mass transit).

The market must be defined before further exploratory promotion as in this project. The previously mentioned study by Nazzaro, Patterson, Smith and Van Norden, on bus riders and non-riders in Austin, suggested that the market segments they had isolated and identified were those of the younger age group, higher income and college-educated clusters. Their report recommended a strategy to increase the number of bus routes, the number of non-stop runs, and greater public awareness through a new and exciting positive image of buses. They suggested that such a campaign might emphasize that buses decrease traffic congestion, save fuel and lessen air pollution. (Such was the approach of the project detailed in this report.)

Another possible project might involve the use of the results in the CATS-sponsored study on "measuring Pedestrian Movement on the University of Texas at Austin Campus", by Prof. Sandra Rosenbloom, Jane Greig and Lawrence Ross. Travel habits and circulation patterns in that study on the origin and destination of students, faculty and staff at the University might be used in a marketing, educational and promotional program related to the shuttle and city bus system. Results and findings in this project on the Austin Transit System might be

applied. An information program might relate to the Rosenbloom recommendations that there be mini-buses to link downtown, the University and state capitol complex; and that there be express buses instead of cars used to get people to and from work in the three cluster areas by use of outlying terminals.

In this respect, a follow-up project to this one could be a study of the communications system of the shuttle bus system and its passengers. It could involve evaluation of its new bus maps issued in September 1973, a new "complaint taker" bureau, new 2-way radios in the new 30 diesel buses, and possible research on bus noise complaints by both residents along the routes and drivers. Such a project would have the advantage of student demographic data, but also potential study of the special role of the Daily Texan, an important community daily not involved in this project. Although it is considered a campus daily, a few respondents in this study mentioned it as a source of information on transit. The overlap in the communications of the shuttle system and the city system may be beginning already. The new September shuttle maps included the interconnecting Austin Transit bus routes. Coordination of any future transit information project would be useful. (For example, on August 10, in the midst of this city bus transit information project, when bus riders were being sought, the Daily Texan ran a full-page ad urging students to "Hitch A Ride To Highland Mall" to shop. Shuttle buses do not go there but city buses do, a fact which was a minor reference in the ad copy).

Project 3

In addition to a project on ETA call boxes and other use of electronic techniques, and a possible extension of promotion projects based on transit riders' habits and demographics, a third project area could involve specialized bus ridership planned and built around some of the successful techinques used in this project.

If crisis is critical to attitude change, then local and national fuel and pollution crises could be utilized to re-direct and re-channelize Austin's mass transit habits relative to special events and special occasions. Several reasons support the idea:

This project revealed that in crisis or for special occasions, previously non-bus riders would consider riding buses.

The CSC has proved it is useful in responding to information from individuals seeking details on buses to special events as publicized in the mass media (on Aqua Fest).

This individual communications pattern (using telephone and the mail) in reacting to mass media campaigns might work with specialized events and population segments who could register their interest in transit through the CSC switchboard. Those could include those interested in sports events, parades, holiday festivals, rock fests, Aqua Fest, political rallies etc.; and specialized groups like the aged, handicapped, dog fanciers, conventioneers, all of whom might seek access to civic meeting spots, sports stadia and shopping malls without congestion and with express taxi-bus service that reduces gas fumes and reduces public subsidy of city transit. Such city fringe parking for shuttle service would have to face possible opposition from some parking lots; and publicly operated shuttle systems now face possible loss of federal funds if they compete with private charter operations, but such costs and trade-offs could be discussed openly in the press, and the general public could make up its mind on the over-all consequences. In this project, transit and media could help bring people of like interests and like destinations together.

There is indication that after mass media saturation of an issue or problem is made, the telephone is often used to personalize the individual response. Austinites, like others, are becoming accustomed to this practice and are responding, as they did in this project. (On July 1, KVUE-TV participated in a 20-hour cerebral palsy telethon designed to raise $40,000. On September 2-3, the Jerry Lewis telethon on muscular dystrophy gathered $72,000 from Austinites and others in Central Texas via KTVV-TV; and the September 15 national Democratic Party telethon used four hours to raise a hoped-for $6 million, expecting a wide individual response to mass media exposure of the Watergate Hearings. In all three cases, the telephone was used in a crisis-type situation, a hotline to individualize upon.)

Finally, such a project might make use of the apparent civic pride in having a mass transit system. Prominent city elites with stature and leadership might fit into a campaign conducted by the new public information program of the CSC and using the CSC's telephone response system for reactions.

A strong appeal might be made by community elites to convince those 96% who rely on autos to consider alternative methods of transportation, and help erase the image of mass transit as one of "mess transit" and caricature.

In a government-dominated city like Austin, respected persons in government might take the lead, for example, in discouraging the purchase of large autos (which may be phased out in 6-10 years anyway), and urge people to use transit by bus when feasible.

Two possible and ideal Austin leaders include the Mayor, Roy Butler, and University of Texas football head coach Darrell Royal. Both have sold cars and they might sell mass transit. Butler, a dealer in used luxury quality cars with auto sales lots a few blocks from the Austin Transit System offices, and the mayor has said he is a "fan" of mass transit. He observed mass transit in European cities in the Summer of 1973 and his actions as mayor have supported the revamped city bus system.

Coach Royal, one of the most respected men in Texas public life, has permitted his high esteem to be used to promote a local bank (with football scenes); and in addition to civic projects, he loaned his name and time to help reduce air conditioning electric power in the Summer of 1973 by support of "Cooperate at 78". He also made a TV commercial to sell autos for an Austin car dealer with background scenes in the revered and honored University stadium. There was some criticism that such use of state property was for commercial or private purposes, but in the possible use of mass transit promotion, the "good of the city" could be argued and with possible less criticism.
(On a tragic note, Royal's 27-year-old daughter died in early 1973 after injuries in an auto accident with a University shuttle bus.)

In such a project as the above to promote use of mass transit, the use of community figures to change attitudes has limitations of course. One spin-off value however might be greater public support for the idea of Austin mass transit, and positive public relations for the Austin Transit System.

Credibility of government can be a sensitive area these days. When Interior Secretary Rogers Morton in early May 1973 urged Americans to use mass transit to save energy, the press was quick to point out the Morton commuted to his Washington job each day from suburban Virginia in a chauffeur-driven, air-conditioned Cadillac. (In London, Sir Reginald Goodwin, leader of the Greater London Council, was one of the first to use new free bus rides for London senior citizens.)

## Project 4

Another possible project with less short-run results, but with far-reaching importance, would be the establishment of a Transportation Information Center, a centralized library and clearing-house where press, public and transit officials could get information. It could assemble material on what other cities are doing besides Austin, what systems of transit and communications are working; and the latest projects conducted throughout the country and world.

An important function could be to aid in the development of transportation communicators by helping automotive and travel writers develop into professional transportation journalists both locally and nationally.

## Project 5

A future project involving communications might concern the education and persuasion of employees and employers in large Austin area insitiutions to consider use of city buses and related staggered and flexible hours to reduce rush-hour traffic congestion and improve work morale. Use of both company communications channels and mass media could be used for such educational promotional programs. Institutional financial support for such a program might be matched by governmental funds. In cities like Austin, with many

government employees, the government itself might take the lead by setting an example by using mass transit or smaller cars.

Project 6

A future project might show how Dial-A-Bus involved the city's communications network and how information media might be used to educate the general public to use or experiment with such a program. The same might apply to the possibilities of a no-fare transit project, where pre-paid transit is made through payroll deductions or in monthly surcharges in utility bills. Public education and public imagery of such a project might necessitate a use of communications skills and strategies.

Another phase and aspect of mass transit (although in possible competition with city mass transit) is the carpool, whose techniques and usage elsewhere might be applicable to Austin, where the auto is rather firmly established and mass transit lacks a strong tradition. The use of computers and other information processing and communications skills relative to carpools might be part of a project involving its suitability to Austin's transportation situation.

In all the above cases -- dial-a-bus, no-fare transit and carpools -- communications is both a technical factor in the operation of the system and an educational factor in its use and/or acceptance. That link of communications to transportation enhances project possibilities.

Project 7

The following "Tips for Transit Service Improvement" are based on the author's riding of city buses in Austin for a year and might be part of the program of the Customer Service Center and the emerging Public Information Program of the Austin Transit System and the Transportation Services section of the newly-named Department of Urban Transportation of Austin, formerly the Department of Traffic and Transportation.

Information Distribution:

Post bus schedules at bus stops.
Information booths downtown (6th and Congress) and in shopping centers.
Mobile information units, possibly a bus itself equipped with displays and multi-media, route and schedule information, going into neighborhoods.
More phones for calls coming in to CSC, with public and administrative calls separated; possible toll-free public phone calls to transit authorities.

Use of and cooperation with city's "Hot Lines" and the new "complaint service" of the shuttle buses.
Provision of transit material on buses for riders in addition to schedules and over-head maps. (London Transport profited $81,000 last year on sales of posters on buses and subways.)

Improved Service:

Enforce "No Smoking" rule on buses and stop eating and drinking on buses; public protests are beginning to arise.
Enforce rules on wearing of uniforms; drivers are often too casually dressed.
Slow down drivers to avoid injuries to passengers; abrupt stops and jerks are a special danger to aged and children and to those who may try to stand up to read the rather inaccessible over-head maps.
Insist drivers pace arrival and departures at stated times on schedules so as to not to race or stall in between those stops; riders in between must be able to rely on their own calculated times of arrival and departure in places unmarked on schedules.
Urge city police to enforce "No Parking" in the middle of downtown streets especially, where buses find it hard to go around.
Explore the possibility of more space for downtown bus stops; and for express bus lanes where feasible.
Explore possible use of dial-a-bus and no-fare systems.
Train drivers to be courteous and to provide information; and use 2-way radio service to help passengers; set up a system to get feedback from drivers to CSC on information needs and problems.
More benches at bus stops and shelters in some cases; they could be promoted as civic projects by clubs or businesses seeking publicity on the benches. Also, natural bench areas might be utilized for stops, i.e. the St. Edwards University entrance stones form a natural bench, and the recent move of the 12th and Congress stop to the west slightly allows riders to sit and wait under trees or use the stone wall as a bench surrounding the state capitol fence. At 6th & Congress, Woolworths' window provides a bus schedule display and its awnings are a rain shelter and their foyer is air-conditioned and has been used for waiting, although such usage might be discouraged by some firms. New bank plaza areas developing might be explored for use.

Promotion, Press Relations, Public Image and Research:

Promote bus riding in new Austin Energy Conservation Committee booklet.
Help educate youth and young children to ride buses; the very young are fascinated by buses as their elders were by trains; explore the possibility of a course in city schools on use of mass transit; educate people to mass transit behavior, how to get on and off (at the back door), not to open windows when the air conditioning is on; not to yell out of buses or to make excessive private noise in a public place.

Go into the community more with mass transit talks to clubs, churches, etc., with inter-personal communication; welcome new Austin residents with transit maps and schedules, perhaps through the Chamber of Commerce and Jaycees; help develop the mass transit habit among city residents.

Develop more personal contacts with the mass media, especially radio-TV; use more press releases, tips to writers and reporters on "human interest" stories about riders and buses; set out to get the press to write a series on how to use city buses, what one can see riding them, where one can go etc. Such a series might be done on each city neighborhood served. Residents might clip and save the series and they might be re-printed by a civic club and distributed as a public service. (The Pittsburgh map was a success.)

Help the press develop a "transit beat" for travel and automotive writers; contact Austin's many "city magazines" which reach upper and white middle class groups; and reach the alternate lifestyle counterculture community and its publications which are receptive to use of mass transit.

Use bumper stickers, slogans, rubber-stamped transfer ticket stubs etc. to promote transit usage; use more color.

Project new image with tours of new building; ride city buses to observe rider behavior and hear complaints; stress service aspect of state's first urban transportation department for a city.

Educate businesses (especially mortgage bankers) to adverse transportation consequences of growth and sprawl in decentralization and city fringe development.

## Sources of Potential Future Support

Support for the seven project areas in these recommendations would involve money, research, promotion and education or some combination of all. Many of the potential supporters cannot commit themselves until this report has been open to their criticism, review and evaluation. These findings and suggestions are being presented to transportation officials and agencies, civic groups, research and policy centers, as well as to the news media.

This report may apply to cities outside of Austin and indeed can be related to a national educational campaign on mass transit use based on voluntary action rather than compulsory government rules. Although emphasis in this project is local, with local orientation, local commitment and use of local resources, enlarged attention and support might come from national governmental agencies like the Department of Transportation, the Urban Mass Transportation Administration, the Department of Housing and Urban Development, Department of Health, Education and Welfare, and the Environmental Protection Agency, both federal and regional.

A variety of national civic organizations with governmental concern about mass transit might be interested in findings and in common research or funding. They include the National League of Cities, the U.S. Conference of Mayors, the National Municipal League, the American Society of Planning Officiails, the International City Managers Association, the American Institute of Planners, and the American Transit Corporation, to name a few. In addition, the potential interest of advertising agencies, oil companies (many of which are centered in Texas), consumer affairs groups, and the new towns (including those in San Antonio and the Dallas areas) might all be potentially interested in some of the projects described.

With this developing structure and attitude, federal political and transportation authorities might be receptive to supporting local projects such as those described herein. They have already spoken of their concern. Texas Lt. Governor William Hobby, with his newspaper and journalism background, has pointed out the need for better communication about campus research to government officials; of the need for a partnership of state government and universities in problem solving, communication, and the need to involve students as well as faculty in projects about government issues.

Texas Senator Lloyd Bentsen, Democrat, chairman of the U.S. Senate panel which negotiated the 1973 Highway Trust Fund and mass transit compromise with the House contingent (headed by Cong. Jim Wright of Texas), wrote recently: "I recognize the burning need to provide better mass transit facilities in the densely populated urban areas of Texas." His counterpart, Republican Senator John Tower, expressing sentiments on local autonomy shared by those wary of federal controls on environment (like those of the EPA), wrote recently that "The primary responsibility for air pollution control rests with the state government under the provisions of the clean air act, and I believe that it should remain there."

Following are some of the state and local groups, agencies and institutions which might give potential support to some of the projects described or to an extension of the present project. The type and extent of support would depend on their exposure to this report and to future research and project directions.

Now is the ideal time to appeal to those concerned with the environment to see the relationship of mass transit to fuel shortages and to pollution and congestion. A more ideal time for attitude and habit change

could not have been planned. President Nixon is especially interested in building international credibility via space and ecological program cooperation with other nations; and domestical credibility with environmental control as a top priority. (Although the President gave visiting Russian Leonid Brezhnev a new car instead of a bus pass, the President's new "save energy" campaign has enlisted the aid of Peanut's cartoon character "Snoopy", who, perhaps, might try mass transit as one fuel conservation method.)

Add to this national educational approach, the return of local autonomy as a national policy and the return of federal money to local communities (including its possible use for mass transit solutions). There is also the decline of federal grants and the desire of local communities to control their own environmental problems, the sharing of federal highway funds with mass transit and the entrance of state highway departments into urban mass transit schedule and route planning. Add also, in the Austin Community, the interest of the local and state officials and groups in mass transit, the new organization of the Department of Traffic and Transportation into the Department of Urban Transportation with divisions for transportation services and traffic engineering, and the Austin Transit Customer Service Center expansion and the new Public Information Program.

Sources of Potential Future Support

Austin Energy Conservation Committee
Austin Office of Environmental Resource Management
Austin Citizens Committee on Transportation
Austin Committee for Public Transportation
Austin Transportation Study (Policy Advisory Committee)
Austin Jaycees
Austin Chamber of Commerce
Austin Transit System
Austin Department of Urban Transportation
Austin Office of Mayor
Austin American-Statesman
Transportation Research Inc.
Concerned Citizens for No-Fare Transportation
Office of Research Management, University of Texas
Communications Research Center, University of Texas
Governor's Coordinator for Science and Technology Programs
Governor's Energy Advisory Council
Capitol Area Planning Council
Houston Endowment Inc., Houston Chronicle
Texas Public Interest Research Group
Texas State Press Association
Texas Association of Broadcasters
Texas Environmental Balancing Bureau
Texas League of Women Voters
Texas Banks Association
Texas Conservation Voters
Texas Federation of Women's Clubs
Southwestern Bell Telephone Company
Texas Automobile Dealers Association
Texas Air Pollution Control Inc.
Texas Tourist Council
TExas Rehabilitation Commission
Texas Municipal League
Texas Senate's Natural Resources Committee
Texas General Land Office
Texas Highway Department
Texas Association for Public Transportation
Texas Mass Transit Commission
Texas Air Control Board
Southwest Research Institute, San Antonio
Houston-Galveston Area Regional Council of Governments
Transportation Study Committee
American Petroleum Institute
Institute for Advanced Environmental Studies, Austin
We Care, Austin
Austin Tomorrow
National Environmental Research Center, North Carolina
National Energy Conservation Corporation for Research & Development
U. S. Office of Energy Conservation, Interior Department
President's Energy Policy Office (Intergovernmental Agency Study Group
to Decrease Energy Consumption)
President's Citizens Advisory Committee on Environmental Quality

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He was an urban newsman for the Houston Chronicle, Kansas City Star, Albuquerque, N.W., Journal, Three Rivers, Mich., Commercial, and edited several suburban weeklies in the Chicago area. He did research on a grant from the Los Angeles Times in 1953-54; studies passenger service for the Metropolitan Coach Lines of Los Angeles, worked for the Southern Pacific Railroad, and had a grant from the Magazine Publishers Assn. of New York.

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