

**S.C.R.T.D. LIBRARY**

Prepared For

**Southern California  
Rapid Transit District**

- SUMMARY REPORT -

**1981 SERVICE AWARENESS AND  
TRANSIT RIDERSHIP STUDY**

Prepared By

**Data Sciences, Incorporated  
7100 Hayvenhurst Avenue, #101  
Van Nuys, California 91406  
213 988-0800**

May 1981

Preparation of this report has been  
financed in part through a grant  
from the Urban Mass Transportation  
Administration under the provisions  
of the Urban Mass Transportation Act  
of 1964 as amended.

# TABLE OF CONTENTS

	Page Number
Introduction.....	1
Summary of Major Findings.....	2
Objectives.....	20
Research Method.....	22
Detailed Findings.....	23
Travel Activity.....	30
History of Public Transit Use.....	33
Effects of Gasoline Cost.....	34
Commuter Attitudes.....	36
Attitude Statements.....	43
Trip Purposes.....	46
Fare/Service Reduction Trade-offs.....	51
SCRTD Services.....	52
Organizations.....	53
Media Exposure.....	54
 APPENDIX	
Project Personnel.....	64
Company Background.....	66
Survey Questionnaire.....	70

## INTRODUCTION

SCRTD conducted its first "benchmark" survey of Los Angeles County residents three years ago, in the Spring of 1978. That study was designed to collect information about basic questions such as awareness and use of public transit, attitudes toward SCRTD and its services, demographic characteristics of riders and non-riders, exposure of respondents to various print and broadcast media, and image profiles of public versus private transportation systems.

Most of the basic descriptive and demographic information collected in 1978 was repeated in this survey to allow meaningful comparisons of results between the two studies. The emphasis in the current research however, has been shifted away from the more theoretical and exploratory nature of the benchmark study, to providing practical descriptive information in support of the District's energy emergency preparedness program.

This report summarizes the major results of the survey, primarily in terms of the important differences which were found between current RTD riders and non-riders, and how each of these groups compares with current automobile commuters who were identified as "susceptible" to ride sharing or public transit.

Additional analysis of the survey findings which is related to differences between the major SCRTD geographic sectors of the county, and comparisons between "transit dependent" and non-transit dependent respondents in each area, will be presented in a supplemental report.

## SUMMARY OF MAJOR FINDINGS

This section of the report summarizes the major findings of the 1981 SCRTD Ridership Survey. Survey results discussed in this section include:

Transit User Groups 1978-1981

User Group Demographics

Public Transit Trip Purposes

Commuter Trade-offs Between Gasoline Price and Scarcity

Transit Rider Trade-offs Between Fare Increases and Service Reductions

Attitude Profiles About RTD Service and Public Transit

Attitudes Toward RTD Drivers

Awareness of RTD Services

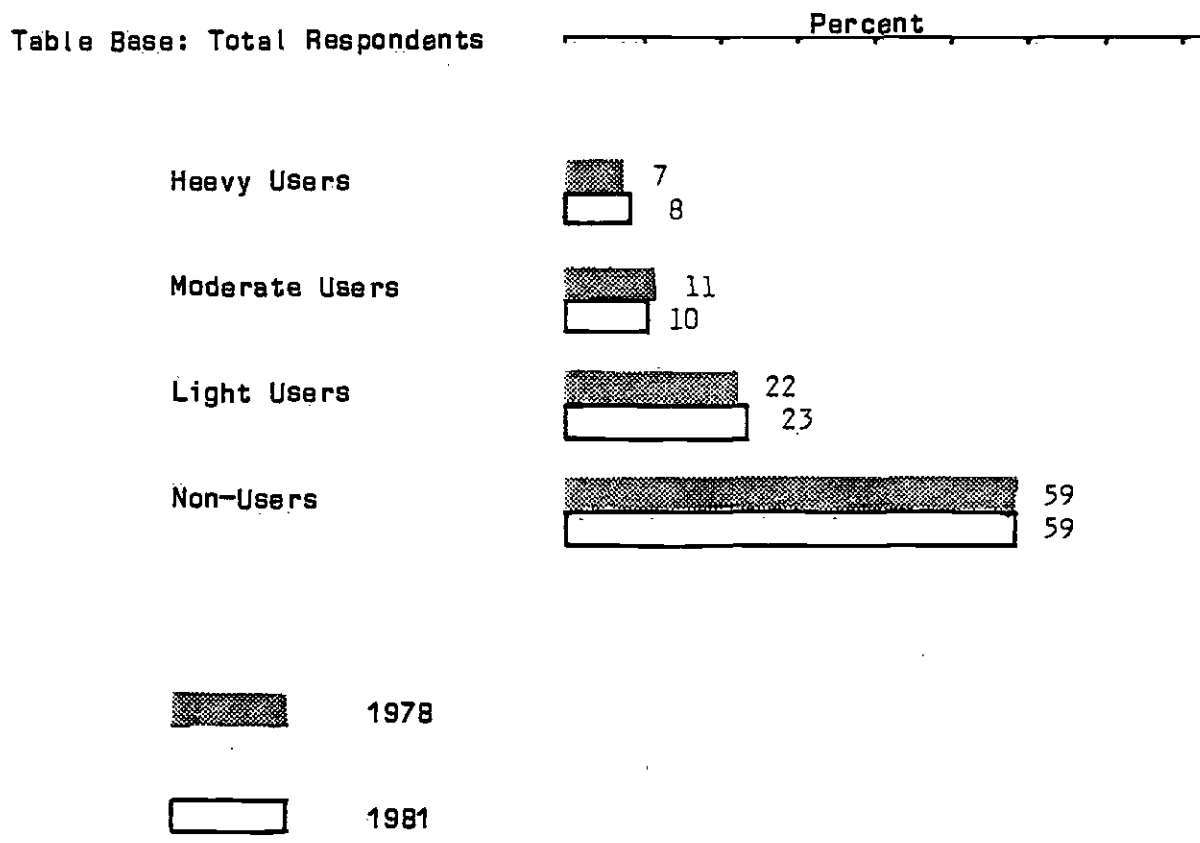
Media Exposure By User Groups

A more complete discussion of each of these areas, and of the complete survey results can be found in the following section.

### Transit User Groups

Respondents were grouped into four categories based on their frequency of public transit use over the past year. Heavy transit users were defined as those riding the bus 20 times or more during the past month; moderate users 4 to 19 times; and light users 1 to 3 times during the past month, or one or more times during the past year.

Figure I  
Transit User Groups



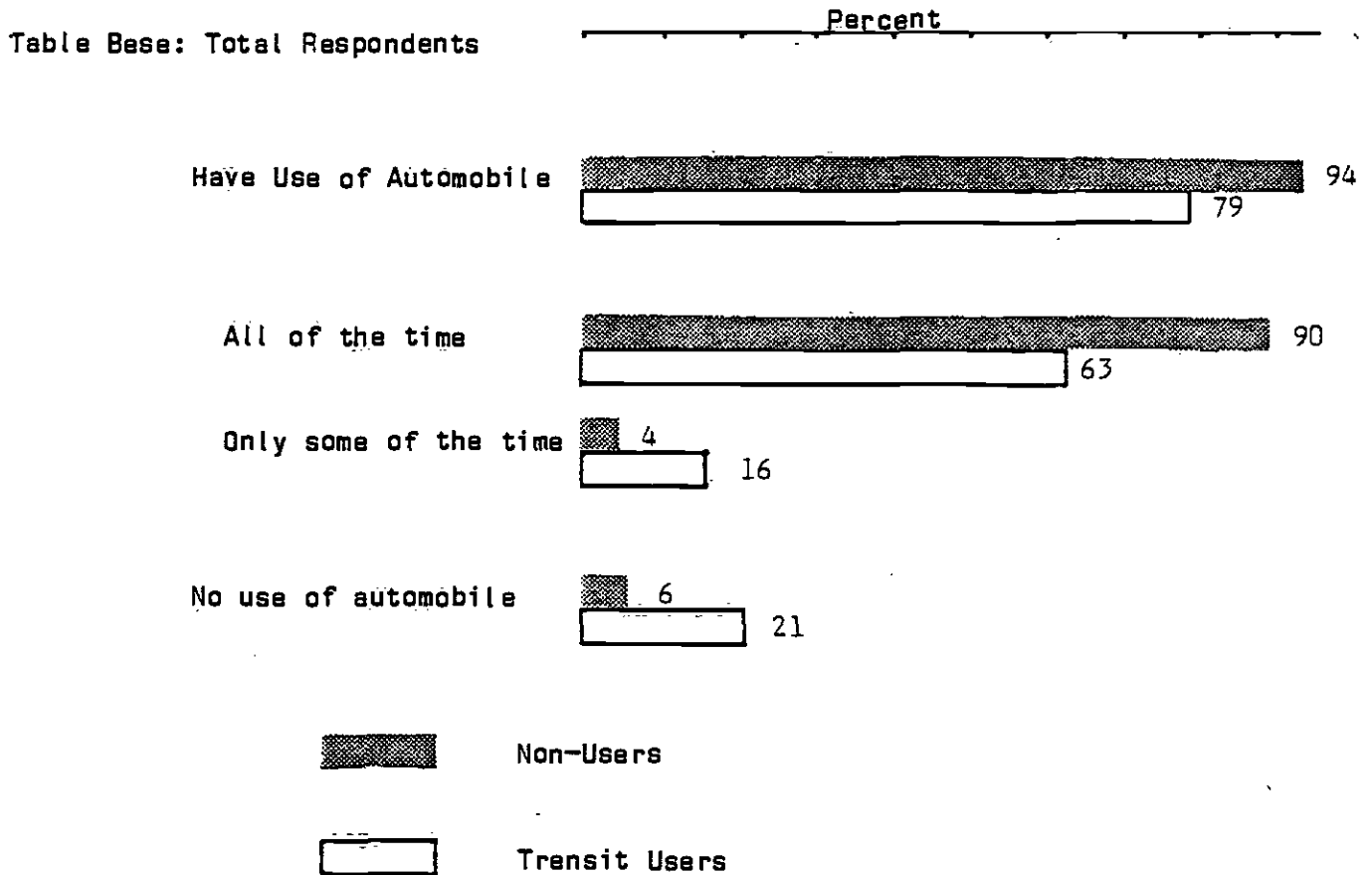
As shown in Figure I, there was no significant difference in the number of respondents classified into each of the four user groups between the survey conducted in 1978 and the Spring of 1981.

Classification of "Transit Dependents"

In the 1978 survey it was found that a high proportion of heavy and moderately heavy users of public transit did not have any regular access to private transportation, and thus, had no real option concerning their trips to or from work or other destinations within the county. In the current survey, the question about personal transportation availability was modified somewhat to obtain more accurate information about this important population sub-group.

A supplemental sample of transit dependent persons was also selected from each of the RTD service sectors, and will be reported on in a subsequent special report.

Figure II  
Transit Dependent Groups



Of major interest here is the fact that a very high proportion of transit users claim to have private transportation available to them if they chose to use it. Of course, a certain number of these individuals commute regularly by automobile, and use public transit only occasionally.

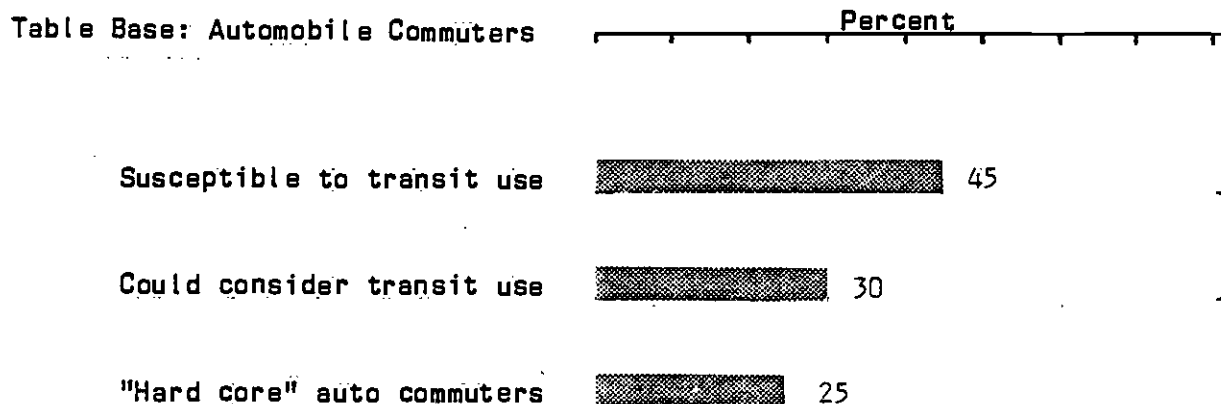
#### Trade-off of Gas Price Versus Scarcity

The sub-group of respondents who said that they regularly commute to and from school or business were asked to consider a situation where various combinations of events might come to pass involving the price of gasoline and its relative scarcity. For the purposes of this question, the prices of gasoline were set at \$1.50, \$2.50, and \$3.50, and combined with levels of scarcity ranging from the imposition of an odd/even purchase plan, gas rationing with 15 gallons per week, and a government prohibition on the use of each automobile for one day each week.

The resulting nine combinations of price and scarcity were ranked, and respondents were then asked if they might seriously consider either ride sharing or the use of public transit in both the least severe and most severe cases.

Based on the trade-off question, respondents were classified into three groups: "hard core" automobile commuters who would not consider ride sharing or public transit no matter how expensive or scarce gasoline might become; a "moderate" group that might consider ride sharing or public transit under some, but not all combinations of price and scarcity; and a "transit susceptible" group that were willing to consider ride sharing and public transit even under the least severe combinations of price and scarcity. The proportion of automobile commuters falling into each group is shown in the following table.

Figure III  
Transit Susceptible Groups



Additional analysis of the classification information for these groups shows that the transit susceptibles tend to be more likely to be found in the South Central RTD sector, and less likely to be found in the San Gabriel Valley sector; are about one and a half times as likely to belong to either the Black or Hispanic ethnic groups; have an average age that tends to be about six years less than the sample as a whole, (36 years versus 42 years); are more likely to be employed in the general office, skilled, semi-skilled, service worker, or technical categories; have a median income approximately \$5,600 less than the \$28,650 median for regular automobile commuters; and are somewhat more likely to spend more than two hours a day watching television, (54% versus 46%), and listening to FM and AM radio.



Relative Importance of Price and Scarcity

Among those "moderates" that might be convinced to adopt ride sharing or public transit, the combined average ranking of the three levels of price and scarcity are shown in the following table.

Figure IV  
Ranking of Gasoline Price Versus Scarcity

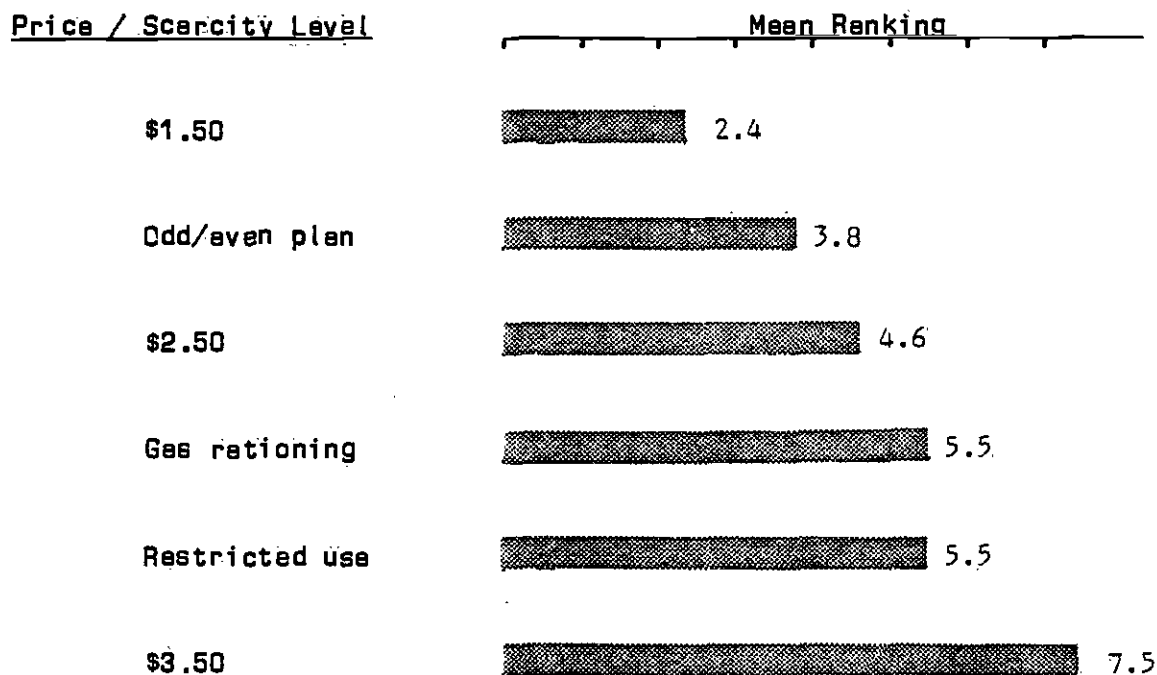


Table Base: Automobile Commuters

Considered as relative measures of commuter dissatisfaction, the average ratings shown above suggest that a gasoline price of \$2.50 would be 20% worse than the return of odd/even allocations, and at \$3.50 per gallon would be 36% worse than either gasoline rationing or restricting the use of motor vehicles.

In practical terms, the group now opposed to, but open to being persuaded to adopt ride sharing or public transit, would rather see the imposition of an odd/even plan than gasoline at \$2.50 per gallon. For more severe situations that could not be handled by odd/even, gas rationing and restrictions on automobile usage are rated about the same, with both being considered less severe than gasoline at \$3.50 per gallon.

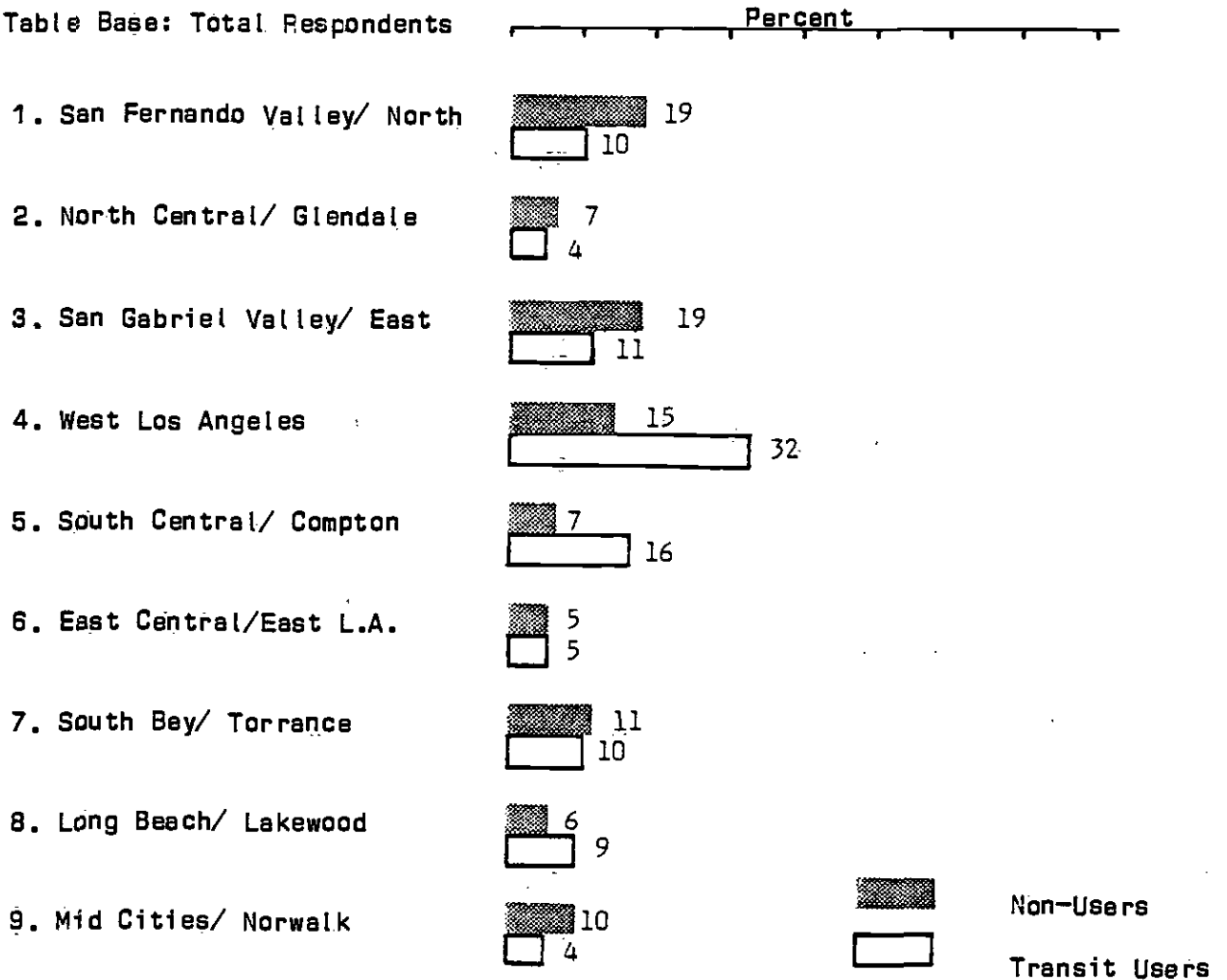
Based on these findings, taking steps such as imposing an additional tax that would increase the price of gasoline from \$1.50 to \$2.50 would be likely to have almost twice the effect on the public's transit usage and ride sharing behavior as imposing an odd/even plan, and increasing the price of gasoline to \$3.50 would have more effect than either gasoline rationing or imposing restrictions on automobile travel.

Transit User and Non-User Demographics

This section presents the major demographic characteristics of transit users and non-users including RTD service sector, ethnic group, age, and income.

Figure IV  
RTD Service Sector

Table Base: Total Respondents



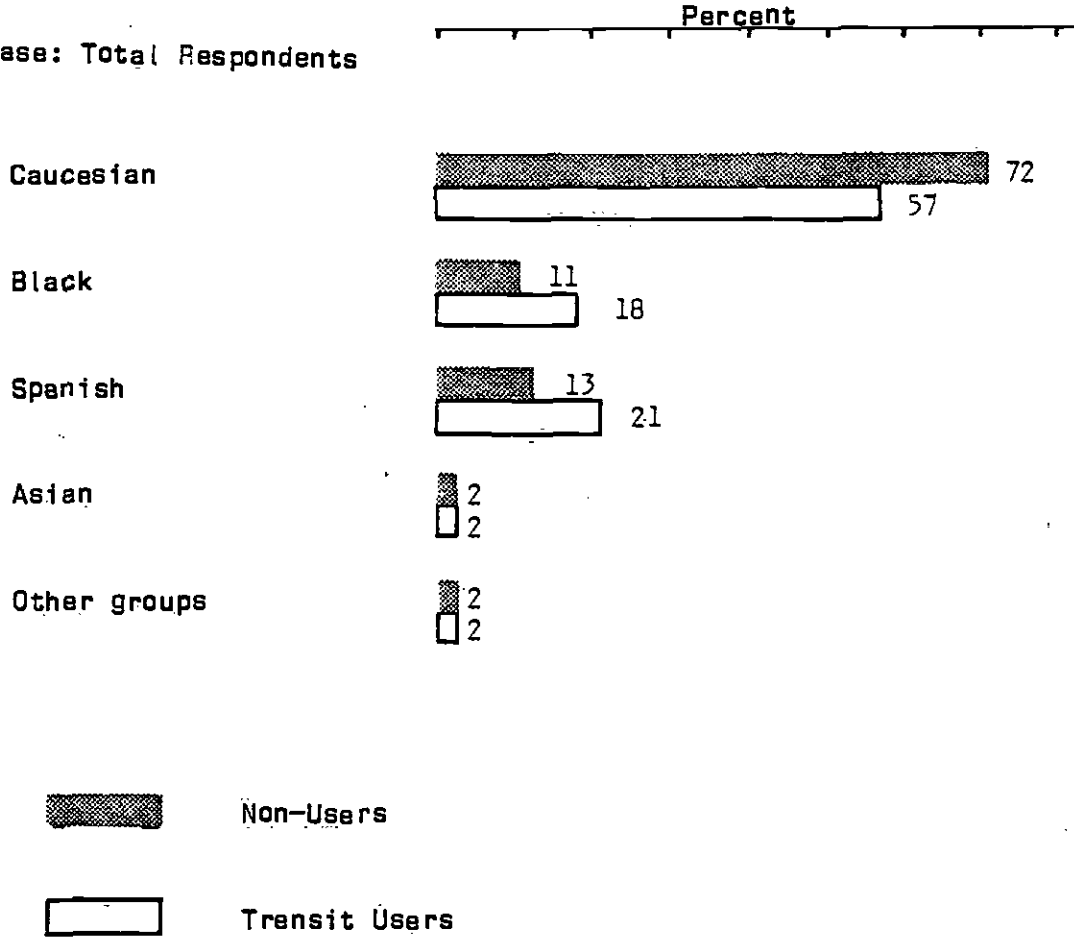
As shown above, transit users tend to be more heavily represented in the West Los Angeles, and South Central sectors, while non-users are more concentrated in the San Fernando and San Gabriel Valleys.



Figure IV - Cont.

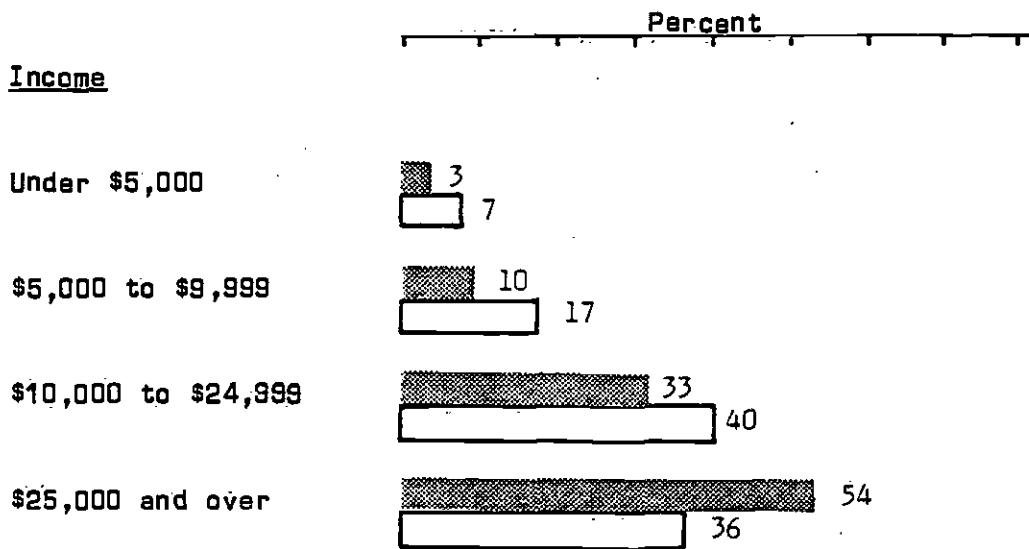
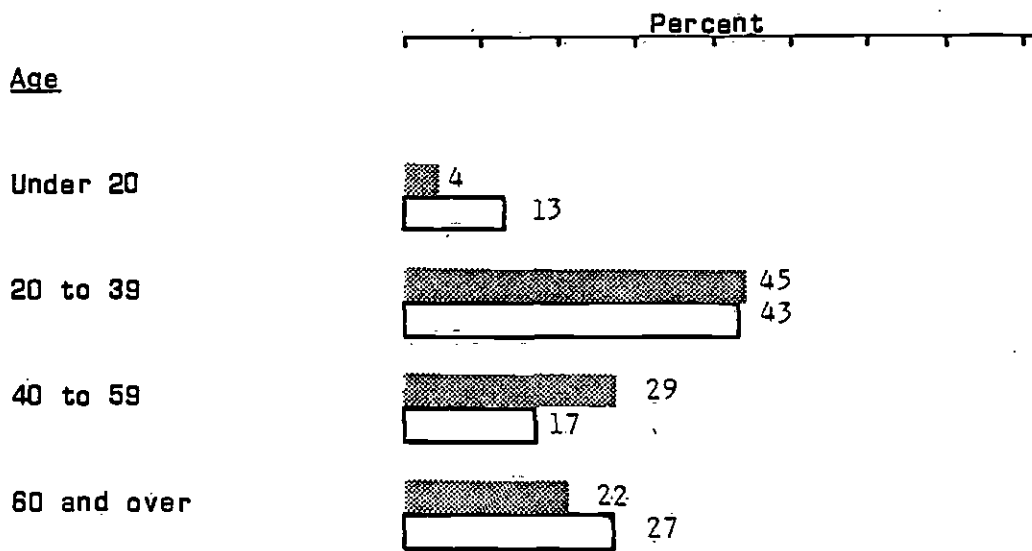
Respondent Ethnic Group



Table Base: Total Respondents



Non-transit users are more prevalent among Caucasians, and transit users among Blacks and Hispanics.

**Figure V**  
**User Demographics - Cont.**



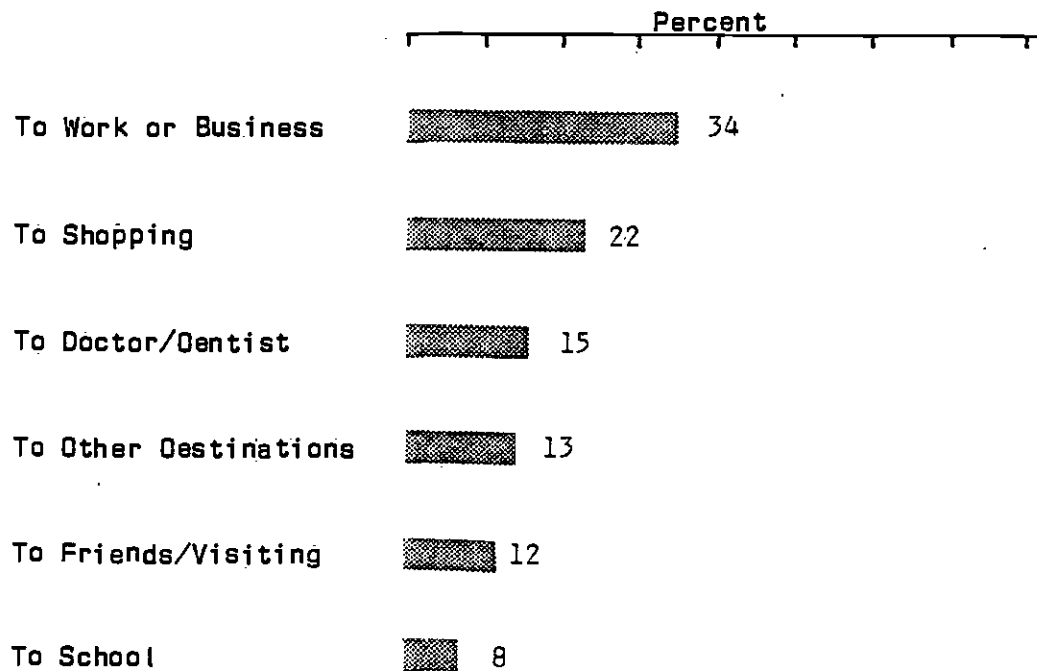
 Non-Users  
 Transit Users

## Public Transit Trip Purposes

Section IV of the questionnaire included a number of questions on the purposes of trips taken in the past seven days by automobile and public transit, the total number of trips taken. The percent of public transit users mentioning each major trip purpose is shown in the following table.

Figure VI  
Public Transit Trip Purposes

Table Base: Used Public Transit In Past 7 Days



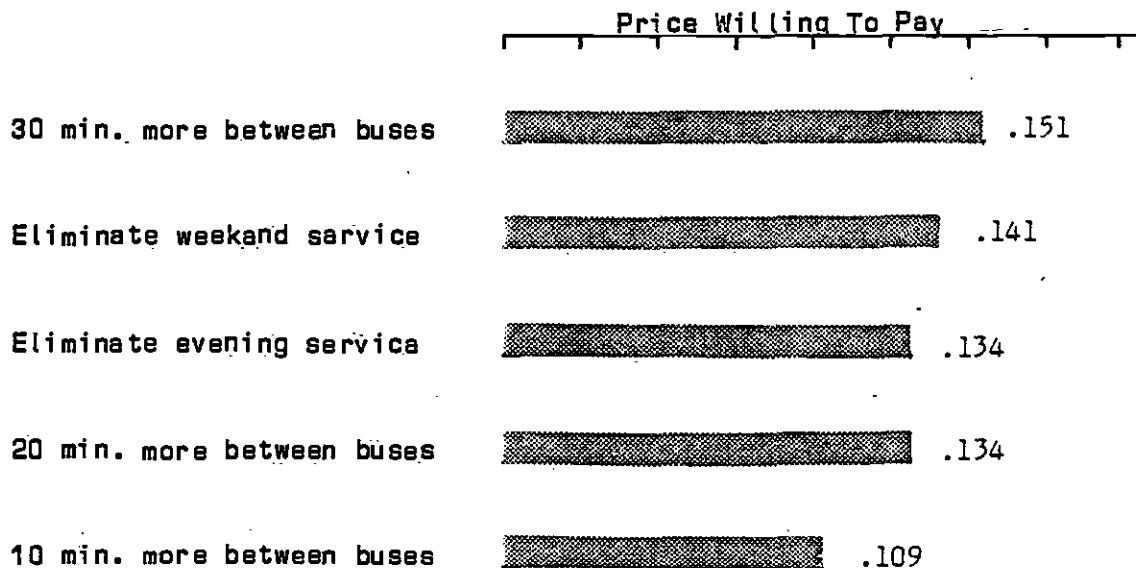
## Trade -off of Increased Fare Versus Decreased Service

Respondents who mentioned having taken a public transit bus within the past seven days were asked a series of questions to establish their willingness to "trade-off" fare increases of 10 to 30 cents against loss of evening and weekend service, or reductions in the frequency of service from 10 to 30 minutes.

The table below summarizes the results of these questions for all respondents in terms of the average amount they would be willing to pay rather than suffer the corresponding service reduction. The larger the amount, the less acceptable the alternative reduction.

Figure VIII

### Fare / Service Level Trade-Offs



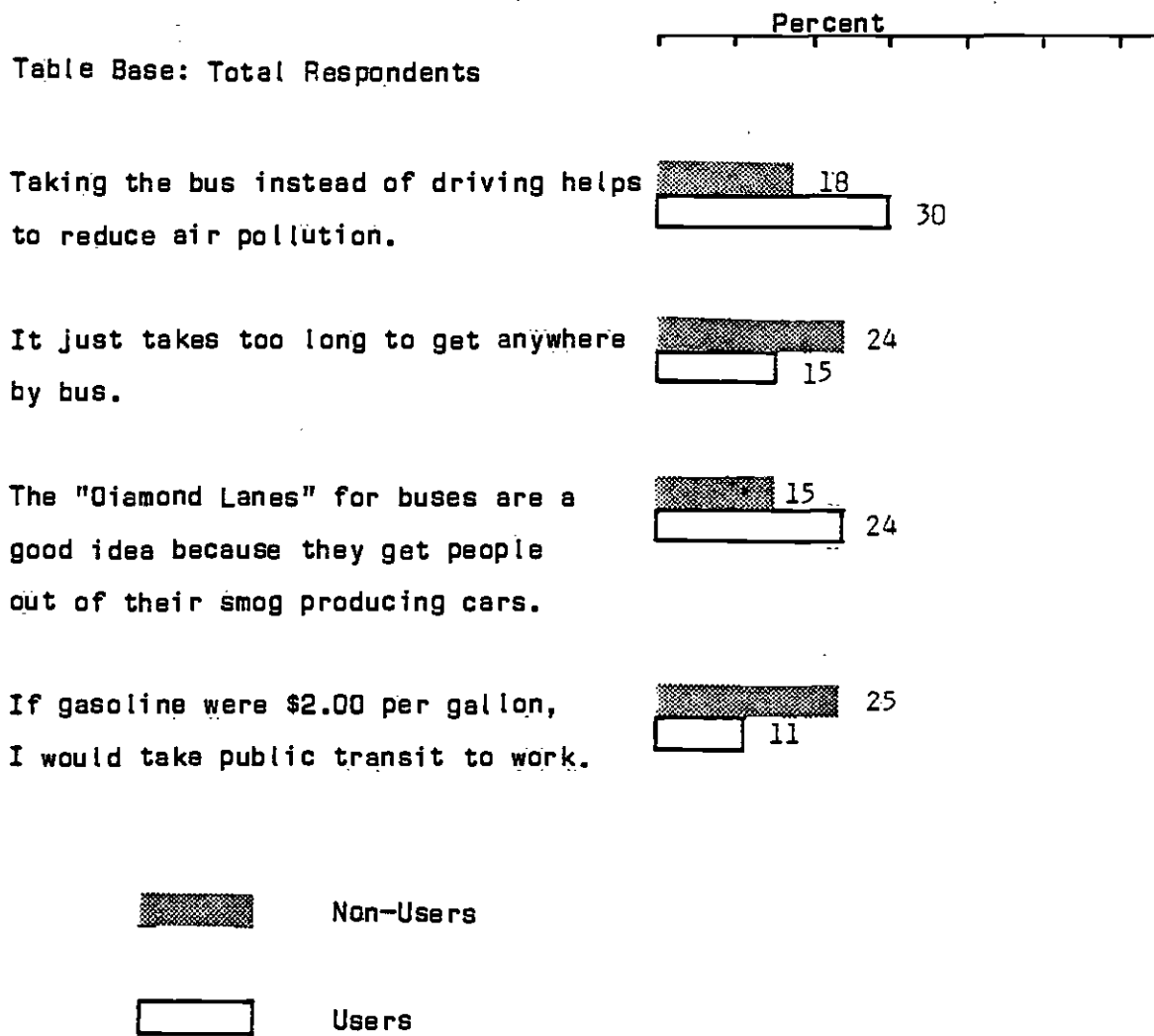
As shown above, extending the time between buses by 30 minutes was the least attractive alternative, with riders willing to pay an average of \$.151 to avoid it. Weekend service ranked second, followed by evening service, and 20 minutes more waiting time in third. 10 minutes more time between buses ranked last.



Attitude Statements

Section III of the questionnaire included forty transit-related attitude statements to which respondents were asked to indicate their opinions on a six-point rating scale ranging from "strongly agree" to "strongly disagree". Results for the four statements that drew the strongest response, either positive or negative, and which showed the greatest difference between riders and non-riders are shown in the table below.

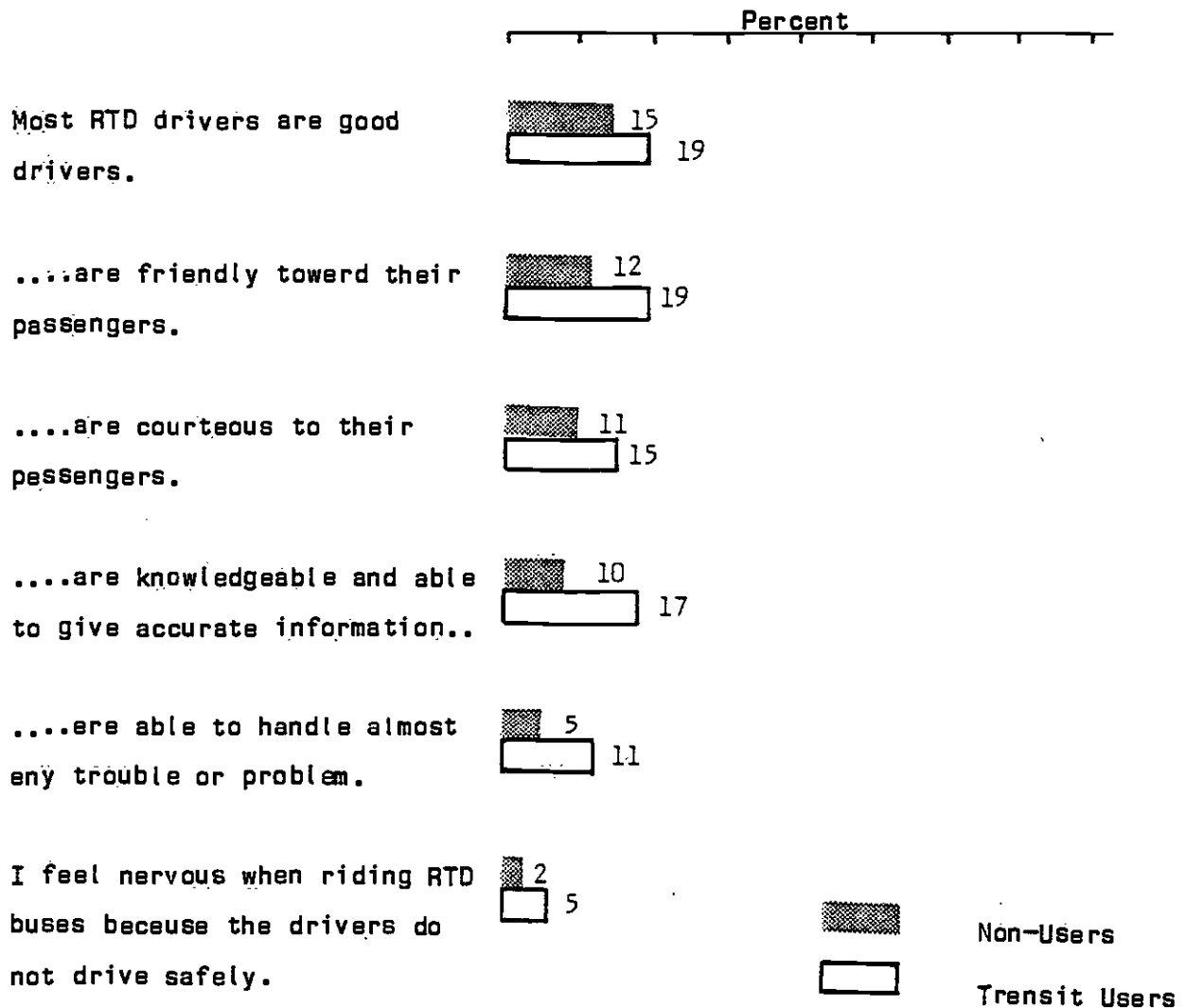
Figure IX  
Attitude Profiles



Attitudes Toward RTD Drivers

Six of the forty attitude statements had to do specifically with public attitudes toward RTD bus drivers. The results of these questions are summarized below in terms of the percentages of respondents who strongly agreed with each statement.

Figure IX - Cont.  
Attitudes Toward RTD Drivers

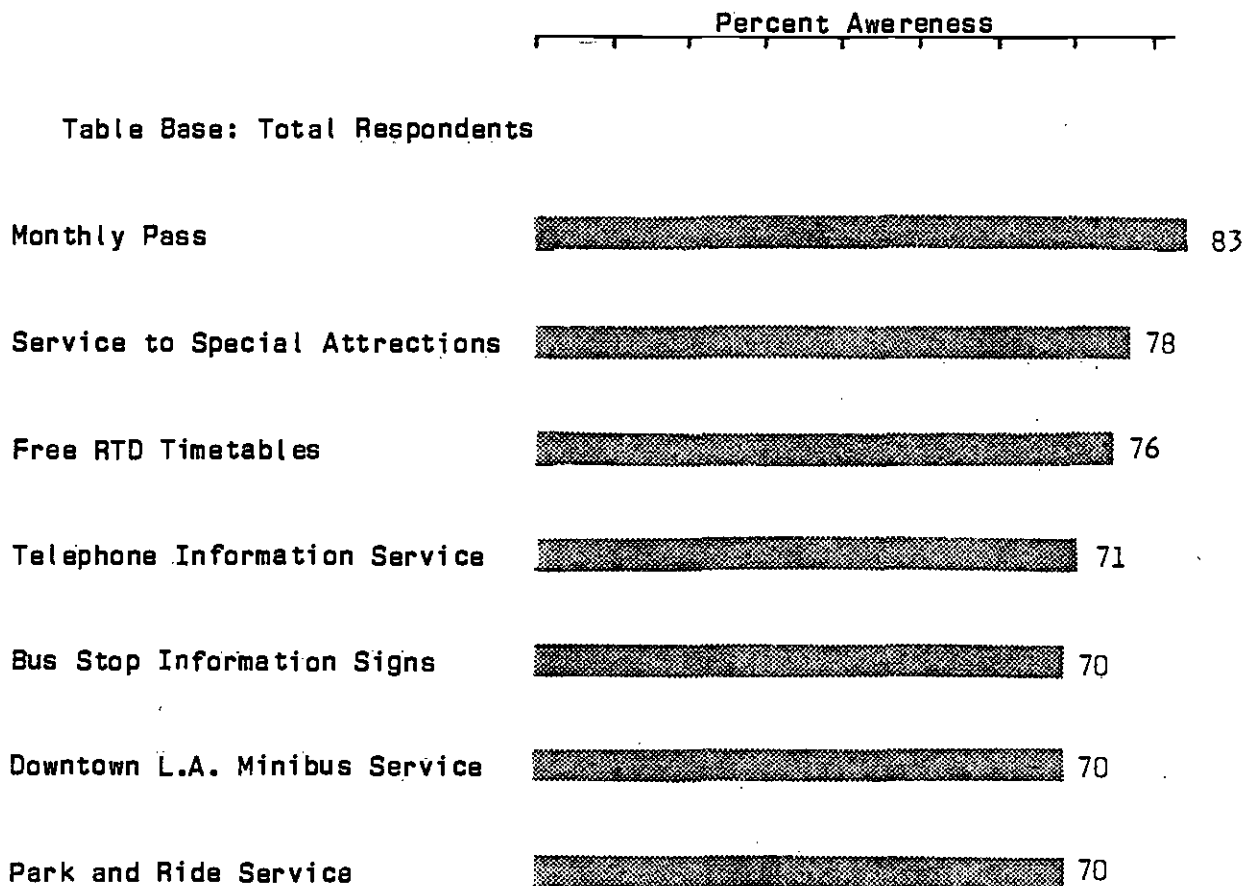


Based on the results shown in Figure IX, the major concern among both riders and non-riders is the "ability of drivers to handle almost any trouble or problems that might come up on their buses." While 27% of respondents either strongly or very strongly agreed with this, 24% strongly or very strongly disagreed.

Awareness of RTD Transit Services

In Section V of the questionnaire, respondents were asked to check one of three responses for each of thirteen SCRTD services: "Never Heard Of This Service", "Heard About It But Never Used It", and "I Have Used This Service". The percentage of respondents who either heard of or never used, or who have used each service is shown below.

Figure X  
Awareness Of Transit Services



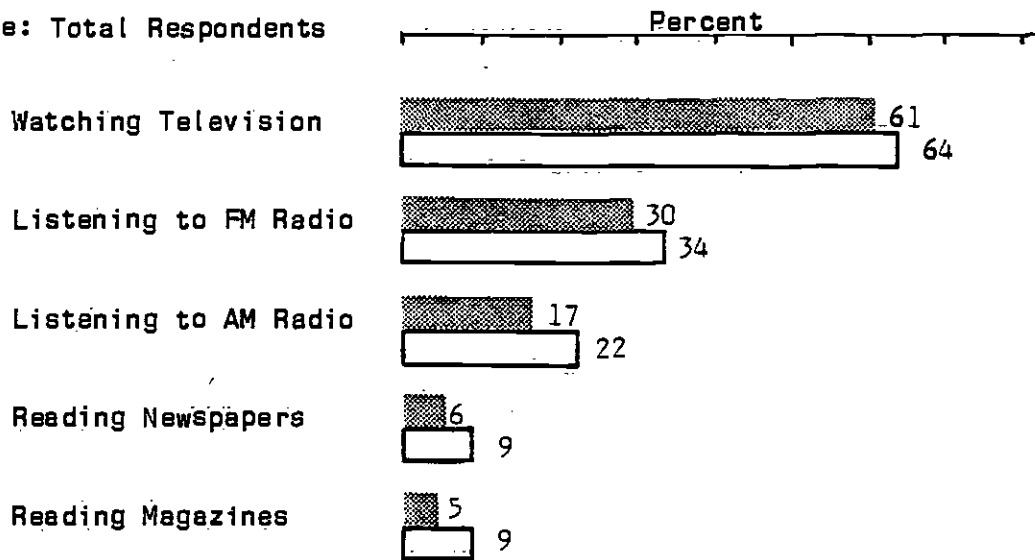
As shown above, those SCRTD services which L.A. County residents were most aware of were monthly passes, service to special attractions, free RTD timetables, the telephone information service, bus stop information signs, downtown L.A. minibus service, and the park and ride service.

Media Exposure

Section V of the questionnaire included questions on respondent exposure to various print and broadcast media. The table below shows the percent of respondents who reported spending two or more hours each day on the different media.

Figure XI  
Media Exposure

Table Base: Total Respondents



As shown above, transit users were somewhat more likely to be heavily exposed to all media, but most strongly to AM radio.

## SURVEY LIMITATIONS

The information presented in this report is based on a random sample of the population of Los Angeles County who have made at least two trips, by either personal or public transit, during the previous seven days. As is the case with anything less than a full census, all percentages and other figures presented have a certain amount of statistical error associated with them. Minor differences of only a few percentage points between the results for one population group versus another should not be considered statistically significant.

For those interested in applying a statistical "yardstick" to the findings, with a total sample size of 1,134 respondents, a characteristic reported by 50% of the sample should not vary by more than  $\pm 3\%$  from the true population value (or from 47% to 53%), with a probability of about 19 to 1. This range declines to about  $\pm 2\%$  when the obtained percentages are farther away from the middle values, i.e., greater than 80% or less than 20%.

There are many sources of potential variation, or bias, in the results of all public opinion surveys. It is recommended that the reader consider the results reported here as the "best estimate" available of the true situation in the RTD's Los Angeles County service areas, not as absolute measurements of the total population of the county.

## OBJECTIVES

The broad objective of this second Service Awareness and Transit Ridership Study was to collect information to be used by the District in support of its energy emergency preparedness program. In view of this requirement, the major areas covered in the survey were as follows.

1. Determine what changes, if any, have occurred over the past two years in the awareness and use of RTD services.
2. Determine the extent to which any observed changes in service awareness or use are related to potential fuel shortages, increased costs of private transportation, and similar direct consequences of the May, 1979 energy situation.

Specific subject areas retained from the 1978 Service Awareness Study, and new areas added to the 1981 Ridership Survey were as follows.

### Sections Retained from 1978 Survey

Household Classification Information This section includes questions on the number of persons age 12 or more living at home, number of motor vehicles, number of persons with California drivers licenses, number of full and part time employed persons in the household, student family members who use public transit, telephone ownership, home ownership or rental, number of persons living at home by age group, and language normally spoken in the home.

Section I - Questions in this section included: Number of trips away from home in the past seven days, number of these trips taken by automobile and by public transit buses, and number of public transit trips taken during the past month, and year.

Section III - "Psychographic" items designed to describe rider and non-rider attitudes toward various aspects of public transportation.

Section V - Service Awareness and Use, revised to reflect changes since 1978, and ratings of public attitudes toward SCRTD as compared to other public bodies such as CALTRANS, the MWD, and the DWP.

Section VI - Readership of various local newspapers and magazines, and amount of exposure to broadcast and print media.

Section VII - Personal and Household Classification Information including sex, marital status, income, age, use of personal transportation, car pooling, occupation, and education.

New Questions Added to the 1981 Survey

Trade-offs among frequent automobile commuters involving the price of gasoline, its availability, and the probability of switching to ride sharing or public transit.

Trade-offs which current riders are willing to make between each of three levels of base fare increases, service frequency, and elimination of evening or weekend service.

The extent to which energy related transit availability may be a determining factor in the purchase of a new home, the purchase of an automobile, and entertainment or recreation choices.

What characteristics of SCRTD service have kept new riders (since May 1979) with the bus system, and turned others away.



## RESEARCH METHOD

A total of 1,134 personnel, in-home interviews and self-administered mail return questionnaires were completed in a randomly selected sample of households, distributed throughout Los Angeles County in proportion to population. To qualify for interviewing, respondents had to be a resident of the county, 12 years of age or older, and have made at least two round trips greater than walking distance away from home during the past week.

As with the 1978 survey, both English and Spanish versions of the questionnaire were used, and respondents were offered an incentive of \$1.00 for each additional questionnaire filled-in and returned by mail by other household members not present at the time of the personal interview. A supplemental sample of 320 transit dependent persons was also selected from each of the RTD service sectors, and will be reported on in a subsequent special report.

Field data collection was completed between January 15<sup>th</sup> and March 5<sup>th</sup>, 1981. All personnel and mail returned questionnaires were edited and coded by Data Sciences before being keypunched into IBM cards and submitted to computer analysis.

Two sets of fully interpreted cross-tabulations of all survey findings have been provided to the SCRTD Marketing Research staff. A copy of the questionnaire used is included in the Appendix. A copy of the Spanish language version is available from the Marketing Research Department if desired.

## DETAILED FINDINGS

The detailed survey results presented in this section are based on the total sample of 1,134 completed personal and mail return questionnaires, weighted to equally represent male and female respondents.

### SAMPLE CHARACTERISTICS

#### RTD Sectors

The proportion of interviews conducted in each of the nine designated RTD Service Sectors shown on the map on the following page is as follows. The proportions of public transit users and non-users are shown to the right.

<u>RTD Sector</u>	<u>Total</u> %	<u>Transit Use</u>		<u>Target</u> <u>Group</u> %
		<u>Non-</u> <u>Users</u> %	<u>Users</u> %	
1. San Fernando Valley/ North	17	19	10	20
2. North Central/ Glendale	6	7	4	7
3. San Gabriel Valley/ East	16	19	11	8
4. West Los Angeles	22	15	32	19
5. South Central/ Compton	11	7	16	20
6. East Central/East L.A.	5	5	5	4
7. South Bay/ Torrance	10	11	10	11
8. Long Beach/ Lakewood	7	6	9	7
9. Mid Cities/ Norwalk	8	10	4	6

The "Target Group" referred to on the previous and following tables refers to those current automobile commuters who were found to be susceptible to adopting either ride sharing or public transit in the event that gasoline either becomes more expensive or less freely available.

Ethnic Composition

Approximately two-thirds (66%) of those interviewed for this study were Caucasian, 14% were Black, 16% Spanish origin, 2% Asian, and 2% other ethnic groups. The proportions of each group falling into the transit user and non-user groups were as follows.

<u>Respondent Race</u>	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-Users</u>	<u>Users</u>	
	%	%	%	%
Caucasian	66	72	57	54
Black	14	11	18	17
Spanish	16	13	21	23
Asian	2	2	2	2
Other groups	2	2	2	4

As shown above, non-transit users are more concentrated among Caucasians, and transit users among Blacks and Hispanics. From the standpoint of racial composition, the target group almost exactly resembles the current rider population.

HOUSEHOLD CHARACTERISTICS.

Number of Persons Age 12 or Over Living at Home

	<u>Transit Use</u>			<u>Target Group</u>
	<u>Total</u>	<u>Non-Users</u>	<u>Users</u>	
	Mn	Mn	Mn	
Median # Persons	2.3	2.3	2.3	2.4

The median household size for the sample as a whole was 2.3, with no major differences noted as a function of public transit usage.

Median household size was generally larger among Spanish origin households, at 2.8, than for the other ethnic groups.

Household size also generally increases with income, from a low median of 2.1 among those in the lowest income category, to a high of 2.7 among those with annual incomes of \$20,000 per year or more.

Number of Motor Vehicles in Working Condition

The median number of motor vehicles in working condition per household was 1.8, with about 7% of the households reporting no vehicles owned by household members.

About one quarter of the households (24%), where the respondent is a 'heavy' user of public transit report not having any vehicles in working condition.

Number of Persons in Household Having a California Drivers License

Among the sample as a whole, about one in twenty households (5%) reported not having a licensed driver. The median number was 1.9.

Among 'heavy' transit user households, about one in five (20%), reported having no licensed drivers. The comparable figure among non-users was 3%.

Number of People in Household Who Are Full- or Part-Time Students

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-</u>		
		<u>Users</u>	<u>Users</u>	
	%	%	%	%
Households With Students	36	36	39	56
Without Students	64	64	61	44

About two out of three (64%) of all households reported that they have no full- or part-time students age 12 or more living at home.

Household Members Employed Full- Or Part-Time

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-</u>		
		<u>Users</u>	<u>Users</u>	
	%	%	%	%
Member Employed Full-Time	75	77	71	90
Member Employed Part-Time	22	21	25	26

About three of four households (75%) reported at least one member employed full time outside of the home. About one in five (22%) reported at least one person employed part-time. The net proportion of households with any person employed was 79%.

Full-time employment increases with family income from a low of 23% among those with incomes of less than \$5000, to a high of 96% among those with family incomes of \$20000 or more.

There did not appear to be any consistent relationship between levels of ridership and either full- or part-time employment. However, only 23% of non-rider households had no person employed full-time compared to 29% of rider households.

Children Under 12 Who Frequently Ride Public Transit Buses

	<u>Transit Use</u>			<u>Target Group</u>
	<u>Total</u>	<u>Non-Users</u>		
	%	%	%	
Children Using Public Transit	9	7	13	14

Approximately one out of ten households (9%) report having any children under age 12 who frequently ride public transit buses.

This percentage is almost twice as high among transit user households at 13% as it is among non-user households at 7%.

By RTD service area, the incidence of children riding the bus is highest in the East Central and South Central sectors at 21% and 12% respectively. Lowest incidence was in the Mid-Cities, South Bay, and San Fernando Valley sectors at from 5% to 7%.

### Households With a Telephone

More than nineteen of twenty households in Los Angeles County report having a telephone (96%). Although those classified as 'heavy' users of public transit had a somewhat lower incidence of telephone ownership than average, at 90%, the difference was not significant.

### Home Ownership

Almost two of three respondents (61%) indicated that they own their home. Those classified as non-users of public transit were more likely to own their homes at 69%, than were transit users at 51%. Generally, ridership declines as home ownership increases from a low of 43% ownership among 'heavy' users, to a high of 55% among 'light' users.

### Family Composition

The following table shows the family composition for the total sample of 1,134 completed interviews.

	<u>Total</u>
<u>Composition</u>	%
Children Under 5	20
Children 6 to 11	21
Children 12 to 14	15
Children 15 to 17	16
Adults 18 and over	100
Adults 65 and over	21

Language Spoken In Home

<u>Language</u>	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-</u>	<u>Users</u>	
		<u>Users</u>	<u>Users</u>	
	%	%	%	%
English	94	94	93	92
Spanish	14	10	19	19
Other language	6	5	7	5

Of the total sample of 1,134 respondents, 94% speak English in their homes, 14% speak Spanish, 1% Japanese, and less than 1% each speak French, German, Korean, Italian, Chinese, and Vietnamese. (The table totals to more than 100% due to multiple languages being spoken in some households)



## TRAVEL ACTIVITY

Section I of the questionnaire included a series of questions about the number of trips taken over the past week, month, and year using both personal and public transportation, a series of questions about past and present transit use, and a question on reasons for no longer using public transit.

### Number Of Trips Away From Home Within the Past Week

	<u>Transit Use</u>			<u>Target Group</u>
	<u>Total</u>	<u>Non-Users</u>	<u>Users</u>	
	%	%	%	
Median Number of Trips	6.9	7.0	6.6	7.2

The median number of trips away from home during the past week among all respondents was 6.9

In general, non-transit users tended to take more trips than did transit users, with the median numbers of trips being 7.0 and 6.6 respectively.

Among all respondents, 35% reported taking ten or more trips away from home in the past seven days. Among those with personal transportation available, 38% took ten or more trips, compared to only 14% among those defined as transit dependent.

As related to race, 37% of Caucasians reported ten or more trips in the past week compared to 34% of Blacks, 30% of Hispanics, and 24% of others.

### Travel Away From Home By Personal Transportation

In general, the median number of trips away from home using personal transportation increases with income from 2.8 per week for the lowest income group, to 7.3 for the highest. Travel by automobile is also most frequent within the 30 to 49 year old age groups, and more frequent among males than females.

Even heavy users of public transit reported a median of 1.4 trips by automobile or other personal transportation in the past week, and those classified as "transit dependent" reported a median of 2.1 trips

### Travel Away From Home By Public Transit Buses

Of the total sample, 16% reported taking one or more trips by public transit buses within the past week.

There is a strong negative relationship between income and the use of public transit. 41% of those with incomes of \$5,000 or less used public transit within the past week, compared to only 9% of those with annual family incomes of \$20,000 or more. Public transportation use is also comparatively higher among those under 20 years of age, and those age 62 or over.

In terms of geographic area, public transportation usage was lowest in the Mid-Cities, San Fernando Valley, North Central, South Bay and San Gabriel Valley sectors. Usage was highest in West Los Angeles, South Central, East Central, and Long Beach.

The incidence of use of both personal and public transit was relatively low, with only 3% reporting such trips in the past week.

### Classification of Respondents Into Ridership Groups

Respondents were grouped into four categories based based on their frequency of public transit use over the past year. Heavy transit users were defined as those riding the bus 20 times or more during the past month; moderate users 4 to 19 times; and light users less than 3 times during the past month, but at least once during the past year.

The distribution of the total sample into these groups was as follows.

<u>Transit User Group</u>	<u>%</u>
Heavy users	7.5
Moderate users	10.3
Light users	23.1
Non-users	59.1

Transit use, as defined by these groups, was negatively related to income, ranging from a high of 15% heavy users among the low income, down to 3% among those with incomes of \$20,000 or more annually.

22% of respondents under 20 years old, and 8% of those age 62 and over were classified as heavy users. Heavy use of public transit was lowest in the 40 to 49 year old age group at 2%.

## HISTORY OF PUBLIC TRANSIT USE

### Reasons for Starting Then Stopping Public Transit Use

Respondents were asked a series of questions designed to determine if they may have started and then stopped riding public transit buses within the three year period from January 1978 through the time of the interview. Those who had started then stopped were asked for their reasons.

A total of 21% of the respondents indicated that they had used public transit bus service, on a regular basis, within the past three years. Of these, almost one-half (48%) started more than three years ago, and 12% started less than a year ago.

Among those using public transit within the past three years, exactly one-half (50%) said that they are still using it. Among the 50% who started then stopped, 43% stayed with public transit more than a year, 19% six months to a year, and 38% less than six months.

The majority of reasons given for no longer using public transit were not related to any judgements about public transit itself, but to other circumstances. For example, 44% said they stopped riding because they either bought or now have the use of a car, 26% because they changed jobs, 13% because they had a car repaired, and 5% because they now get a ride from someone else.

Among those who started then stopped using public transit within the past three years the only transit related reasons for starting and then stopping were: "Slow/inconvenient schedule" (17%), and "Poor routing" (8%). Both of these responses were more often made by persons currently classified as light transit users.

## EFFECTS OF GASOLINE COST

### Postponement or Cancellation of Automobile Trips

Among the total sample of 1,134 respondents, almost one-third (31%) claimed that they have postponed or canceled one or more trips around Southern California for recreation or entertainment because of the high cost of gasoline. Those most likely to have canceled trips are in the 30 to 49 year old age group, and those with incomes in the \$10,000 to \$20,000 range.

Of those postponing or canceling trips, about a third (31%) said that they had considered using public transit for these trips. Of this group, about one-quarter, (26%) actually used public transit for one or more trips postponed or canceled because of the high cost of gasoline.

In summary of the above, about 10% of the respondents claimed to have postponed or canceled a trip due to the high cost of gasoline, and also considered using public transit. About one-fourth of these, or approximately 2 1/2% of all respondents, actually substituted public transit for a trip that might have otherwise been postponed or canceled.

### Automobile Purchase

In total, about one out of five respondents (20%) said that they had purchased an automobile within the past twelve months. An additional 13% said that they had considered an automobile purchase.

When asked how important the cost of gasoline was to them in their decision on whether or not to buy a car, one-half (50%) said that it was "very important". Women scored higher on this than men at 57% versus 44%.

On the question of whether or not the price of gasoline was important in their decision on what kind of car to buy, 57% said that it was very important. Again, women indicated greater concern at 64% compared to 51% for men.

Residential Mobility and Home Purchase

In total, about 5% of the respondents reported buying a new home in Los Angeles County within the past 12 months. About 14% indicated that they had considered buying or moving to a new home or apartment.

Of those buying or considering buying, about one of five (21%) said that the availability of convenient public transportation was "very important" to them in their decision about whether to buy or move to a particular home. The population sub-groups most often associated with this response were those age 62 and over, and those in the under \$5,000 income group

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-Users</u>	<u>Users</u>	
	%	%	%	%
Bought Or Considered Buying A House	19	18	20	19
Didn't Consider Public Transportation	49	59	36	40
Considered It Somewhat Important	30	28	31	38
Considered It Very Important	21	13	33	22

Almost one-half of all respondents who bought or considered buying homes did NOT consider the availability of convenient public transportation as a part of their decision about whether to move to or buy a particular home.

## COMMUTER ATTITUDES

Respondents were asked if they regularly commute from their homes to school or a place of business or employment three or more days each week. 54% of those responding answered "yes", and were asked a series of additional questions concerning where (which RTD sectors) they commute to, what mode of transportation they use, and their opinion of various actions that might be taken by government in the event of another severe gasoline shortage.

Those respondents who mentioned commuting regularly by automobile were asked to rate various actions they might take personally in a gasoline shortage. Those who were interviewed in person were also administered a trade-off question on their probable response to various combinations of gasoline prices from \$1.50 to \$3.00 per gallon, and degrees of scarcity from a return to odd/even purchase days to government prohibiting use of each vehicle for one day a week.

### Regular Commuters

In total, 54% of respondents indicated that they regularly commute three days a week or more between home and school, employment, or place of business.

Regular commuting was more often reported by men (68%) than by women (41%). Higher levels of commuting were also reported by respondents under age 30, and among those with incomes above \$10,000 per year.

### Areas Commuted To and From

Although the majority of commuting was done within the sectors where respondents live, the major commuting destinations in Los Angeles County were the South Central sector, West Los Angeles, the San Fernando Valley, and the South Bay sector.

### Kind Of Transportation Used On Commuting Trips

Among regular commuters, 85% use a private automobile, van, truck, or other form of personal transportation. 7% travel by carpool or vanpool, and 11% use public transit.

Use of public transit for regular commuting was most frequent among those under 30 years of age, and those age 62 or more. Commuting by public transit was also substantially higher among the low income (33%), than in the highest income group (7%).

### Rating of Transportation Alternatives

Respondents who reported regularly commuting to work or business by automobile were asked to rank seven alternative kinds of transportation which they might use to deal with a severe gasoline shortage that prevented them from using their cars to get to and from work.

The following table shows the percentage of respondents who ranked each alternative first (most acceptable) of the seven choices.



	<u>Transit Use</u>			
	<u>Total</u>	<u>Non-Users</u>		<u>Target Group</u>
	%	%	%	%
Set up a carpool with employees where I work.	45	50	36	43
Travel on foot, by bicycle, (other non-vehicular).	21	22	21	18
Use public transportation.	20	14	31	25
Contact Commuter Computer.	6	6	5	8
Buspooling with others who work in my area.	4	5	2	3
Vanpooling with others who work where I do.	4	5	3	3
Taxipooling directly to end from work.	1	2	1	1

Of the seven alternatives offered, the one most preferred was setting up a carpool with employees where they work - ranked as a first choice by 45% of the automobile commuters. Second choice was travel by foot, or bicycle, and third ranked was using public transit buses - with 20%. Commuter Computer was ranked fourth at 6%.

The least desirable alternatives to automobile commuting were taxipooling direct from home to work, vanpooling, and buspooling to work from a location near your home.

Rating of Government Responses To A Severe Gasoline Shortage

All respondents were asked to rank seven alternative actions that might be taken by government in the event of an emergency shortage of gasoline.

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-Users</u>	<u>Users</u>	
	%	%	%	%
Odd / Even gasoline sales	43	46	40	41
Work four 10 hour days	21	21	21	26
Enforced car/bus pooling	13	13	13	15
Gasoline rationing	10	11	10	9
Staggered starting times	5	4	7	4
No driving one day per week	5	4	6	3
Large tax on price of gas	3	2	3	2

The most acceptable action was establishing the odd/even gasoline sales system - with 43% ranking it in first position. Second choice was requiring employee to work four ten-hour days rather than 5 eight-hour days - 21%. The third choice was requiring employees to get to work by carpooling, vanpooling, or buspooling - 13%.

Least acceptable of the seven alternatives was adding a large tax to the price of gasoline. Only 3% ranked this action first, and 53% put it in last position.

## Trade-Offs Between Increased Gasoline Costs and Restricted Supply

The sub-group of respondents who said that they regularly commute to and from school or business were asked to consider a situation where various combinations of events might come to pass involving the price of gasoline and its relative scarcity. For the purposes of this question, the prices of gasoline were set at \$1.50, \$2.50, and \$3.50, and combined with levels of scarcity ranging from the imposition of an odd/even purchase plan, gas rationing with 15 gallons per week, and a government prohibition on the use of each automobile for one day each week.

The resulting nine combinations of price and scarcity were ranked, and respondents were then asked if they might seriously consider either ride sharing or the use of public transit in both the least severe and most severe cases.

Based on the trade-off question, current automobile commuters were classified into three groups: "herd core" non-riders who would not consider ride sharing or public transit no matter how expensive or scarce gasoline might become; a group of "reluctant riders" that might consider ride sharing or public transit under some, but not all combinations of price and scarcity; and a "transit susceptible" group that were willing to consider ride sharing and public transit even under the least severe combinations of price and scarcity. The proportion of automobile commuters falling into each group is shown in the following table.

<u>Transit Group</u>	<u>Percent</u>
Transit Susceptible	45
Moderates	30
Herd Core Non-Users	25

Additional analysis of the classification information for these groups shows that the transit susceptibles tend to be :

- More likely to be found in the South Central RTD sector, and less likely to be found in the San Gabriel Valley sector.
- Are about one and a half times as likely to belong to either the Black or Hispanic ethnic groups.
- An average age that tends to be about six years less than the sample as a whole. (36 years versus 42 years)
- Are more likely to be employed in the general office, skilled, semi-skilled, service worker, or technical categories.
- Have a median income approximately \$5,600 less than the \$28,650 median for regular automobile commuters.
- Are somewhat more likely to spend more than two hours a day watching television. (54% versus 46%), and listening to FM and AM radio.

Relative Importance of Price and Scarcity

Among those "moderates" that might be convinced to adopt ride sharing or public transit, the combined average ranking of the three levels of price and scarcity are shown in the following table.

<u>Price / Scarcity Level</u>	<u>Mean Rank</u>
\$1.50	2.4
Odd/even plan	3.6
\$2.50	4.6
Gas rationing	5.5
Restricted use	5.5
\$3.50	7.5

In practical terms, this means that the group now opposed to, but open to being persuaded to adopt ride sharing or public transit, would rather see the imposition of an odd/even plan than gasoline at \$2.50 per gallon. For more severe situations that could not be handled by odd/even, gas rationing and restrictions on automobile usage are rated about the same, with both being considered less severe than gasoline at \$3.50 per gallon.

Based on these findings, increasing the price of gasoline from \$1.50 to \$2.50 would have almost twice the effect as imposing an odd/even plan, and increasing the price of gasoline to \$3.50 would have more effect than either gasoline rationing or imposing restrictions on automobile travel.

## ATTITUDE STATEMENTS

Section III of the questionnaire included forty transit related statements to which respondents were asked to indicate their opinions on a six-point rating scale ranging from "strongly agree" to "strongly disagree". Results for the fifteen statements that drew the strongest response, either positive or negative, are summarized below. Percentages of either very strongly agree or very strongly disagree responses are shown below in total, and for transit users and non-users. (Strongly Disagree percentages are shown as negative.)

Table Base: Total Respondents	Non-		
	Total %	Users %	Users %
I would be embarrassed to be seen riding the bus.	-53	-50	-59
The bus fare should be kept low so that more people will ride it.	36	34	40
It hardly seems proper for someone in a top job to commute by bus.	-32	-31	-32
Special traffic lanes for buses on the freeways are a good idea and there should be more of them.	31	28	34
I feel nervous when riding RTD buses because the drivers do not drive safely.	-28	-25	-32
I am afraid I might get on the wrong bus or get lost somewhere.	-26	-22	-31
Buses do not run often enough.	25	25	24
Taking the bus instead of driving helps to reduce air pollution.	22	18	30
Buses run so seldom that you almost always have to wait a long time to get one.	22	24	20
It just takes too long to get <u>anywhere</u> by bus.	20	24	15

Continued

Most people only ride the bus because they don't have a car to drive.	20	18	21
People should start using buses and mass transit more in order to save energy.	19	17	24
Employers should be responsible for providing employees with ways to travel to and from work other than alone by private automobile.	19	22	14
The "Diamond Lanes" for buses are a good idea because they help to get people out of their smog producing cars.	19	15	24
If gasoline were \$2.00 per gallon, I would take public transportation to work.	19	25	11

Among this list of statements that respondents felt most strongly about, only four showed any substantial difference of attitude between transit users and non-users. In general, transit users tended more to agree that "Diamond Lanes" for buses and taking the bus rather than driving both have a positive affect on improving air quality.

Six of the forty attitude statements had to do specifically with public attitudes toward RTD bus drivers. The results of these questions are summarized below in terms of the percentages of respondents who strongly agreed with each statement.

	<u>Transit Use</u>		
	<u>Total</u>	<u>Non-Users</u>	<u>Users</u>
	%	%	%
Most RTD drivers are good drivers.	16	15	19
....are friendly toward their passengers.	15	12	19
....are courteous to their passengers.	13	11	15
....are knowledgeable and able to give accurate information..	13	10	17
....are able to handle almost any trouble or problem.	7	5	11
I feel nervous when riding RTD buses because the drivers do not drive safely.	3	2	5

Based on these results, the major concern among both riders and non-riders is the "ability of drivers to handle almost any trouble or problems that might come up on their buses." While 27% of respondents either strongly or very strongly agreed with this, 24% strongly or very strongly disagreed.



## TRIP PURPOSES

Section IV of the questionnaire included a number of questions on the purposes of trips taken in the past seven days by automobile and public transit, the total number of trips taken, how long the last trip took, reason for using public transit, how traveled to a bus stop, bus transfers, distance to the nearest bus stop, and knowledge of where (what part of the city) the bus goes.

Respondents who had taken a public transit bus within the past seven days were also asked a series of questions to establish their willingness to "trade-off" fare increases of 10 to 30 cents against loss of evening and weekend service, or reductions in the frequency of service from 10 to 30 minutes.

### Travel By Auto or Personal Transportation

Of the total sample of respondents, 93% said that they have traveled away from home at least once in the past seven days by automobile or other forms of personal transportation. Results by family income showed that 83% of low income respondents took such trips versus 97% of those in the highest income group.

Full results are shown in the following table.

Main Purpose / Length of Last Automobile Trip

The major purposes of the last automobile trip taken by respondents were as follows.

<u>Trip Purpose</u>	<u>Percent</u>
To/From work or business	32
To/From shopping	26
To/From other destinations	15
To/from friends/visiting	14
To/from Doctor/Dentist/Medical	9
To/from school	8

As expected, trips for work or business were most frequent among those aged 20 through 31 and those with higher incomes, trips for shopping were more frequent for females than males, and trips to Doctors, Dentists, etc, were most frequent for those age 50 or more.

Average travel time for the last automobile trip was 22 minutes.

### Travel By Public Transit Buses

Among all respondents, 16% said that they had traveled by public transit buses at least once during the past seven days.

The average number of transit bus trips taken during the past week by all respondents was 7.8. The average number of trips taken for the various trip purposes and the percent mentioning each purpose for their last trip by public transit bus is shown below.

<u>Trip Purpose</u>	<u>Average Number</u>	<u>Percent Last Trip</u>
To work or business	3.9	34
To shopping	2.1	22
To other destinations	2.1	13
To friends/visiting	2.1	12
To Doctor/Dentist/Medical	1.8	15
To school	4.4	8
Returning home	4.0	—

A comparison of these results with the stated trip purposes for automobile travel shows a significant difference only in the Medical/Dental category with 15% of public transit trips for this purpose, compared to 9% of automobile trips. Shopping (34%) and Medical/Dental purposes (23%) accounted for a substantially higher proportion of trips taken by lower income respondents than among the high income (8-10%).

The average length of the last public transit bus trip was 32 minutes - ten minutes longer than the average automobile trip.

Reason For Making the Last Trip By Public Transit

Reasons for making the last trip by public transit rather than by some other mode of transportation were as follows.

<u>Reasons</u>	<u>Transit Use</u>			<u>Target Group</u>
	<u>Total</u>	<u>Non-Users</u>	<u>Users</u>	
	<u>%</u>	<u>%</u>	<u>%</u>	
Don't have a drivers license.	41	-	41	11
Have a drivers license but no personal transportation.	30	-	30	43
Prafer the bus, even though have a license and personal transportation.	29	-	29	46

More than one-quarter (29%) of the trips mentioned were taken by those who claimed to prefer using public transit even though they have other means of travel available to them. Those taking the bus by preference tended to be age 50 and older, and to be in the higher income group.

### Means of Getting to the Place Where Bus Was Boarded

When asked how they got to the location to get onto the bus for their last trip by public transit, 94% said they walked, 4% got a ride, and 2% drove there.

### Number of Buses Taken To Get to Destination

Among those traveling by public transit bus during the past seven days, 62% said that they made the trip on one bus, and 38% had to transfer at least once. In total, 52% indicated they took two buses, 19% three, and 9% four or more.

### Knowledge of Distance to Nearest Bus Stop

Among transit users, 96% indicated that they knew the exact distance to the nearest place where they could get onto a public transit bus.

When asked the distance to the nearest bus stop, 70% said that they were within two blocks. An additional 22% were within three to four blocks.

90% of the respondents claimed to know exactly where the nearest bus goes - that is the areas of the city it would take them to, 4% did not, and 6% were not really sure.

Trade-off Of Increased Fares Versus Decreased Service

As mentioned at the beginning of this section, respondents who had taken a public transit bus within the past seven days were also asked a series of questions to establish their willingness to "trade-off" fare increases of 10 to 30 cents against loss of evening end weekend service, or reductions in the frequency of service from 10 to 30 minutes.

The information below summarizes the results of these questions for all respondents in terms of the average amount they would be willing to pay rather than suffer the corresponding service reduction. The larger the amount, the less acceptable the alternative reduction.

<u>Amount</u>	<u>Service Reductions</u>				
	<u>30</u>	<u>Week</u>	<u>Even</u>	<u>20</u>	<u>10</u>
	<u>Min</u>	<u>ends</u>	<u>ings</u>	<u>Min</u>	<u>Min</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
30 cents	29	30	26	24	16
20 cents	17	8	11	12	11
10 cents	30	35	34	38	39
Nothing	24	27	29	26	34
<u>Averages</u>	<u>\$.151</u>	<u>.141</u>	<u>.134</u>	<u>.134</u>	<u>.109</u>

As shown above, extending the time between buses by 30 minutes was the least attractive alternative, with respondents willing to pay an average of \$.151 to avoid it. Weekend service ranked second, followed by evening service, and 20 minutes more waiting time in third. 10 minutes more time between buses ranked last.

The final decision on which of these courses of action might be most cost effective to the District must also be based on the relative operating cost savings associated with each action. Of course, with the complete discontinuation of either weekend or evening service, the additional revenue sacrificed should also be taken into account.

SCRTD SERVICES

In Section V of the questionnaire, respondents were asked to check one of three responses for each of thirteen SCRTD services: "Never Heard Of This Service", "Heard About It But Never Used It", and "I Have Used This Service".

The table below summarizes the results of these questions for each RTD service.

<u>SCRTD Services</u>	<u>Never Heard Of</u> %	<u>Never Used</u> %	<u>Have Used</u> %
Bus Stop Information Signs	30	43	27
Downtown L.A. Minibus Service	30	58	11
El Monte Busway	63	33	4
Service To Spacial Attractions	22	64	14
Free RTD Timetables	24	45	31
Free RTD SEction Maps	40	39	21
Free Pamphlets on RTD Service	41	39	20
Monthly Pass	17	72	11
Park And Ride Service	30	65	5
RTD Ticket Books	40	56	4
RTD Bus System Map	45	46	9
Subscription Bus Service	75	23	2
Telephone Information Service	29	45	26

As shown above, those SCRTD services which L.A. County residents were most aware of were: the monthly pass, service to special attractions, free RTD timetables, telephone information service, bus stop information signs, downtown L.A. minibus service, and the park and ride service.

## ORGANIZATIONS

Respondents were asked to rate seven different local, state, and national organizations on how good a job they felt each was doing overall.

The seven organizations are listed below, with their average ratings based on a scale in which "Never Heard Of Them" = 0, "Poor" = 1, "Fair" = 2, "Good" = 3, "Very Good" = 4, and "Excellent" = 5. Also shown is the percent of respondents ranking each organization as "excellent" or "very good".

<u>Organizations</u>	<u>Mean</u>	<u>Total</u> %	<u>Transit Use</u>		<u>Target</u> <u>Group</u> %
			<u>Non-</u> <u>Users</u> %	<u>Users</u> %	
SCRTD	2.6	15	11	19	12
AMTRAC	2.8	22	21	24	20
CALTRANS	2.6	17	15	19	19
D W P	2.9	20	19	21	15
City of Los Angeles	2.6	14	11	18	12
Los Angeles County	2.7	14	11	17	11
M W D	2.8	16	15	17	13

As shown above, SCRTD was rated at the same level as the City of Los Angeles, with a mean rating of 2.6 on a scale of from one to five. In total, 15% of all respondents answering this question rated SCRTD as "very good" or "excellent". Of the organizations represented, the best overall ratings were given to AMTRAC and the Department of Water and Power.



## MEDIA EXPOSURE

Section VI of the questionnaire included questions on respondent readership of a list of eighteen local newspapers, and six magazines, followed by a question which asked for estimates of the amount of time spent, on an average day, listening to AM and FM radio stations, watching television, and reading newspapers and magazines.

### Newspapers

Respondents were asked to indicate how often they read each of the newspapers listed, ranging from "never" through "almost every day". Based on a scale with "never read" as "1", to "almost every day" as "5", the six most often read newspapers were as follows.

<u>Newspapers</u>	<u>Mean Rating</u>	<u>% Almost Every Day</u>
Los Angeles Times	3.4	38
Herald-Examiner	2.2	11
Daily News (Valley Green Sheet)	1.6	7
Long Beach Independent	1.4	5
South Bay Daily Breeze	1.4	4
San Gabriel Valley Tribune	1.3	4

In general, newspaper readership was higher among non-transit users than among transit users. This was particularly true for the Los Angeles Times, which was read "almost every day" by 42% of non-transit users, compared to 32% of transit users.

Magazines

Results for the six magazines included in the questionnaire, on the same basis as reported for newspapers, are shown below.

<u>Magazines</u>	<u>Mean Rating</u>	<u>% Almost Every Day</u>
T.V GUIDE	3.2	36
YOU (Los Angeles Times)	1.9	5
Sunset	1.7	2
Los Angeles Magazine	1.6	1
New West	1.5	*
Mr. Te Ve	1.1	1

Time Spent - By Specific Media

Respondents were asked to indicate how much time during an average day they spend with each of several types of print and broadcast media. The percent of respondents spending two or more hours per day on each activity for the sample as a whole, and for transit users versus non-users is shown in the table below.

<u>Media</u>	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-Users</u>	<u>Users</u>	
	%	%	%	%
Watching Television	62	61	64	54
Listening to FM Radio	32	30	34	37
Listening to AM Radio	19	17	22	19
Reading Newspapers	7	6	9	9
Reading Magazines	7	5	9	7

As shown above, transit users, as compared to non-users, are somewhat more likely to be heavily exposed to all media, particularly AM radio.

The target group susceptible to conversion to public transit appears to be somewhat more likely to be exposed to FM radio, and less likely to television.

## DEMOGRAPHIC CHARACTERISTICS

This section summarizes the demographic characteristics of the total sample, as compared to transit users, non-users, and the "transit susceptible" target group.

### Sex

<u>Respondent Sex</u>	<u>Total</u> %	<u>Transit Use</u>		<u>Target Group</u> %
		<u>Non-Users</u> %	<u>Users</u> %	
Male	50	50	50	55
Female	50	50	50	45

In the base survey sample, 42% of the respondents were male, 58% female. To some extent, this disproportionate representation of women is typical of all personal, in-home interviewing. To compensate for this, the computer tabulations of all data weighted male respondents by a factor of 1.37 to 1.00.

### Marital Status

<u>Marital Status</u>	<u>Total</u> %	<u>Transit Use</u>		<u>Target Group</u> %
		<u>Non-Users</u> %	<u>Users</u> %	
Married	60	68	50	59
Not Married	40	32	50	41

Income

Transit Use

	<u>Total</u>	<u>Non-</u>		<u>Target</u>
	<u>%</u>	<u>Users</u>	<u>Users</u>	<u>Group</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u>Family Income</u>				
Under \$5,000	5	3	7	2
\$5,000 to \$7,499	7	6	9	2
\$7,500 to \$9,999	5	4	8	2
\$10,000 to \$14,999	12	11	13	12
\$15,000 to \$19,999	13	11	14	15
\$20,000 to \$24,999	12	11	13	16
\$25,000 to \$29,999	11	12	9	15
\$30,000 to \$39,999	14	16	10	14
\$40,000 end Over	22	26	17	23
<u>Median Incomes (000)</u>	21.3	24.0	17.6	23.0

Between the survey conducted in 1978 and the present, reported total annual family incomes increased from a median of \$13,660 to \$21,270. While part of this difference can be accounted for by inflation, and an increase in the number of two wage earner households, we believe the major real change has been due to a substantial increase in the number of respondents refusing to answer the income questions. The absence of lower income households from the computation would account for the higher estimate in 1981.

According to the Conference Board, median incomes of the typical family of four increased from \$9,867 in 1970 to an estimated \$24,035 in 1981.

Respondent Age

Transit Use

<u>Respondent Age</u>	<u>Total</u>	<u>Non-</u>		<u>Target</u>
	<u>%</u>	<u>Users</u>	<u>Users</u>	<u>Group</u>
		<u>%</u>	<u>%</u>	<u>%</u>
Under 20	8	4	13	7
20 to 29	22	21	25	31
30 to 39	21	24	18	28
40 to 49	11	14	7	15
50 to 59	14	15	10	10
60 years and over	24	22	27	9

Median age for the total sample was 37.3 years, compared to 47.2 in the survey conducted in 1978. The large difference represents a substantially higher proportion of respondents in this survey who are in the under 20 and 20 to 29 year old age groups, and a corresponding reduction in the proportion of respondents in their 30's and 40's. The proportion of respondents age 60 and over remained the same in both surveys.

Occupation

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-Users</u>	<u>Users</u>	
	%	%	%	%
<u>Respondent Occupation</u>				
<u>White Collar Total</u>	46	49	39	41
General Office/Clerical	3	1	6	4
Management	12	15	7	9
Proprietor	4	4	3	3
Professional	22	23	20	19
Sales	5	6	3	6
<u>Blue Collar Total</u>	34	33	39	47
Skilled/Semi-Skilled	22	22	23	30
Technical	4	4	4	7
Service Worker	5	5	6	9
Unskilled Labor	3	2	6	1
<u>Other Groups Total</u>	20	18	22	12
High School/College student	1	*	*	-
Retired	14	15	14	8
Not Employed	5	3	8	4

Appropriate to the somewhat younger age and higher income distribution of this survey compared to 1978, in this year's study almost one-half of the respondents (46%) fell into the 'White collar' occupational group, compared to 38% in the 1978 survey.

Education

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-</u>	<u>Users</u>	
	%	%	%	%
<u>Respondent Education</u>				
Grade School	9	9	11	7
High School	41	39	43	35
Trade School	4	5	3	3
College (1 to 3 years)	24	25	23	32
College (4 years +)	12	13	10	12
Post Graduate	10	9	10	11

How Long Lived In Los Angeles County

	<u>Total</u>	<u>Transit Use</u>		<u>Target Group</u>
		<u>Non-</u>	<u>Users</u>	
	%	%	%	%
<u>Time In Los Angeles</u>				
1 Year or Less	5	4	6	5
2 to 10 Years	22	19	26	24
11 to 24 Years	29	27	31	38
25 Years or More	44	50	37	33



California Drivers Licenses

	<u>Total</u>	<u>Transit Use</u>		<u>Target</u>
		<u>Users</u>	<u>Users</u>	
<u>Have Drivers License?</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	83	90	73	95
No	17	10	27	5

Participation In Car Pools

	<u>Total</u>	<u>Transit Use</u>		<u>Target</u>
		<u>Users</u>	<u>Users</u>	
<u>Car Pool Participation</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes - Private	8	7	9	10
Yes - Company Sponsor	*	1	-	*
No	92	92	91	90

Note: \* = Less than 1%

"Transit Dependence"  
 Use of Personal Transportation

<u>Dependence Groups</u>	<u>Total</u> %	<u>Transit Use</u>		<u>Target Group</u> %
		<u>Non-Users</u> %	<u>Users</u> %	
Yes - Have Use Of Automobile	88	94	79	96
All of the time	78	89	63	93
Occasionally	7	4	12	2
Special Occasions	2	1	4	1
No - Do not have use	12	6	21	4

Of major interest here is the fact that a very high proportion of transit users claim to have regular use of private transportation. Of course, many of these commute regularly by automobile, and use public transit only occasionally.

Labor Union Membership

	<u>Total</u> %	<u>Transit Use</u>		<u>Target Group</u> %
		<u>Non-Users</u> %	<u>Users</u> %	
Yes - Member of Labor Union	16	16	16	19
No - Not a Member	84	84	84	81

## PROJECT PERSONNEL

JAMES R. STARKS    B.A. Psychology, Magna Cum Laude, 1960  
University of Southern California  
Los Angeles, California

Mr. Starks has been employed in the field of public opinion, marketing, and advertising research since his graduation from the University of Southern California in June 1960.

Following a year as Marketing Analyst with the Sparkletts Drinking Water Corporation, Mr. Starks joined the staff of Human Factors Research, Inc., then headquartered in Los Angeles. Over the following several years, Mr. Starks advanced in the company from Research Assistant to Senior Vice President in charge of the Marketing Research Division, with full responsibility for operation of the company's Los Angeles office. In the Fall of 1978, he became the first President of newly formed Data Sciences, Inc. which subsequently purchased all of the assets of HFR's Marketing Research Division.

Mr. Starks has an extensive background and training in public opinion and consumer research, from experimental design and questionnaire development to sampling methods, field data collection, computer analysis, and preparation of written reports. During the past few years, Mr. Starks has served as a research consultant to clients in a broad range of industries including aerospace, advertising, banking, communications, consumer goods, electronics, food products, petroleum marketing, real estate, retail merchandising, and transportation, as well as several agencies of local, state, and federal governments. Specific research topics covered include major studies of consumer attitudes and behavior, market potential estimation, package design studies, product use tests, advertising media and copy testing, mathematical modeling, and computer analysis of consumer credit information.

Mr. Starks is a member of Phi Beta Kappa, Phi Kappa Phi, the American Marketing Association, and the Travel Research Association.

The individuals listed below have been associated with DSI since its inception, and will be called upon as needed during the course of this survey.

KENNETH B. GROSS Ph.D Mathematics, 1973  
University of Southern California

M.S. Statistics, 1977  
University of Michigan

Since receiving his Doctorate in Mathematics from USC in 1973, Dr. Gross has served as an instructor in mathematics and statistics at Louisiana State University, and Michigan State University before accepting a post as Assistant Professor of Statistics at Arizona State University in Tempe, AZ. From June 1978 to June 1979, he was employed as a Systems Analyst specializing in computer security at Systems Development Corporation in Santa Monica, CA.

Dr. Gross has been associated with Data Sciences in a consulting capacity since its organization in 1978. Most recently, he has been involved in the development of a computer model for market simulation based on tradeoff judgments of product or service attributes.

## COMPANY BACKGROUND

Data Sciences was founded in June 1978 for the purpose of offering marketing, public opinion, consumer, product, and advertising research services to clients in business, industry, and government. At that time, the key members of the Los Angeles office of Human Factors Research, Inc. acquired the assets of HFR's Marketing Research Division and established their own company.

Data Sciences is incorporated in the State of California, is wholly owned by the professional staff, and includes experienced professionals in the areas of research design, primary and secondary data collection, computer data processing, and multivariate statistical analysis.

The major client services offered by DSI include all aspects of marketing, public opinion, consumer, product, and advertising research - from research design, data collection and processing, to analysis and interpretation of findings, production of written reports, and oral presentation of findings with appropriate visual aids.

All services, such as computer data processing, or advanced statistical analysis, are offered individually, however Data Sciences specializes in conducting complete custom designed research projects using mail, group administered, telephone, in-home and intercept personal interviews either singly, or in combination.

A partial list of DSI clients over the past two years include the following.

Benton + Bowles Advertising, Inc.  
Century 21 Real Estate Corporation  
Continental Airlines  
Grey Advertising  
Greet Western Savings + Loan Association

Los Angeles County Bar Association  
Polaris Microcomputers, Inc.  
Seers, Roebuck + Company  
Southern California Rapid Transit District  
Southern Pacific Transportation Company

Texes Instruments, Inc.  
Union Dil Company of California  
- Marketing Information Division, Chicago, IL.  
- Credit Card Center, San Francisco, CA.  
Van De Kamps - Frozen Foods Division  
Von's Markets, Inc.  
Yamaha International Corporation

## MAJOR RESEARCH AREAS

### Advertising Research

- Advertising Penetration and Awareness
- Audience Size and Composition
- Concept and Copy Testing
- Media Selection Models
- Readership Surveys

### Corporate and Legal Research

- Change of Venue
- Corporate Image Studies
- Employee Attitude Surveys
- Shareholder Surveys
- Trademark Infringement

### Marketing Research

- Brand Positioning
- Market Segmentation
- Perceptual Mapping
- Psychographic Analysis
- Purchasing Behavior
- Trade-off Analysis

### Product Research

- New Product Acceptance
- Packaging Design
- Product Use Tests

### Sales and Distribution Research

- Dealer Attitude Surveys
- Sales Forecasting and Analysis
- Site Location Studies
- Trade Area Analysis

## CUSTOM SURVEY RESEARCH

### Research Design

The selection of an appropriate research method depends on correctly evaluating several independent and interdependent factors, among them the characteristics of the population(s) to be represented, the desired accuracy of estimated population parameters, the nature of the information needed, its contribution to reducing the risk of making an incorrect decision, and the normal limitations of time and budget.

Data Sciences has successfully designed and conducted research projects at every level of complexity, from simple telephone surveys, to extremely sensitive investigations of human behavior having important implications for public policy. We believe our reputation for creativity and innovation in both research design and computer data analysis has been well earned.

### Probability Sampling

Standardized methods have been developed by DSI for selecting a wide variety of samples for mail, telephone, and personal interviews - including computer production of address labels for mail surveys, computer generation of random digit telephone numbers to enable telephone sampling of non-listed telephone subscribers, and an adaptation of hierarchical clustering to generate matched pairs of test market cities, retail locations, or experimental and control groups for structured market tests.

### Interviewer Training, Supervision, and Verification

Detailed written interviewer instructions are prepared for all telephone and personal interview surveys. Where more than ordinarily complicated sampling or data collection procedures are required, all interviewers are personally trained by a member of the DSI staff. All phases of field data collection are closely supervised to insure the highest quality interviewing obtainable.

A unique, DSI developed 100% postcard verification procedure is routinely used on all but the simplest telephone surveys, in addition to the usual 15% telephone verification for proper interviewing procedure and response accuracy.

## Coding and Keypunching

Of the numerous stages in the flow of information from the survey respondent to the users written report, the least visible and therefore most productive of undetected error, are the coding and keypunching operations. The use of inexperienced, unverified keypunching, and inadequate "machine cleaning" procedures are probably the major source of error in most survey research projects. For this reason, all DSI keypunching is verified, and each respondent's record is carefully checked for internal consistency. Although this approach is more expensive and time consuming, we feel the extra effort is more than justified by a significant improvement in data quality.

## Computer Data Processing

Data Sciences make regular use of the IBM 370/3033 computer installation maintained by the Litton/Mellonics Information Center in Canoga Park. This facility, with two 3033 mainframes running in tandem, 14 million words of core storage, more than 30 tape drives and 80 disk drives, 2 Model 3800 high speed laser printers, and a full array of other peripheral devices is one of the largest and best equipped computer facilities in the Western United States.

The Data Sciences software library includes a number of specialized programs for the efficient processing and analysis of survey research data. The full capabilities of recognized statistical program systems such as BMDP, SPSS, and SAS are available for batch, remote job entry, or on-line interactive processing of survey data. Among the standard procedures available are univariate descriptive statistics, autoregression, canonical correlation, cluster analysis, discriminant analysis, factor analysis, weighted, nonlinear, stepwise, and polynomial regressions, as well as nested and multivariate analysis of variance. Additional proprietary programs are available for the development of market share and segmentation models using tradeoff analysis, production of mailing labels, generation of seven or ten digit numbers for random digit dialing, random selection of sampling points for area probability sampling, and others.

## Reporting of Survey Results

However carefully data is collected and analyzed, its full value is only realized when the information is effectively communicated.

Data Sciences provides research results at whatever level of detail the client requires, from simple cross tabulations to full written reports and management presentations using a variety of audio/visual techniques.



SERVICE AWARENESS SURVEY

Hello, I'm \_\_\_\_\_ from Data Sciences, Inc. in Los Angeles. [SHOW ID CARD] We're conducting a public opinion survey about personal transportation in Los Angeles County, and we would like to have some of your opinions. [PRIMARY RESPONDENT MUST BE ADULT HOUSEHOLD MEMBER]

1. Have you personally gone anywhere beyond walking distance of home twice or more within the past seven days?

Yes [ ] No [ ]

2. Has any other person in your household gone anywhere beyond walking distance twice or more within the past seven days?

Yes [ ] No [ ]

[CONTINUE INTERVIEW WITH QUALIFIED RESPONDENT OR ARRANGE FOR LATER APPOINTMENT - IF NO QUALIFIED RESPONDENT IN HOUSEHOLD, TALLY AND TERMINATE]

RETURN TO NEXT PAGE AND COMPLETE THE CLASSIFICATION INFORMATION SECTION. WHEN FINISHED WITH THIS SECTION, CONTINUE WITH INDIVIDUAL QUESTIONNAIRE. WHEN THIS IS FINISHED, EXPLAIN THAT YOU WANT TO LEAVE QUESTIONNAIRES FOR ALL OTHER FAMILY MEMBERS AGE 12 OR OVER WHO HAVE TAKEN TWO OR MORE QUALIFYING TRIPS DURING THE PAST WEEK. EXPLAIN ABOUT THE \$1.00 INCENTIVE FOR EACH RETURNED QUESTIONNAIRE. HAVE RESPONDENT FILL OUT ENVELOPE FOR RETURN OF INCENTIVE, AND LEAVE NECESSARY MATERIALS. COMPLETE HOUSEHOLD CLASSIFICATION ON QUESTIONNAIRE(S) LEFT FOR COMPLETION.]

RESPONDENT'S NAME \_\_\_\_\_ PHONE NUMBER \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_

INTERVIEWER \_\_\_\_\_ DATE \_\_\_\_\_ TIME BEGIN \_\_\_\_\_ DURATION \_\_\_\_\_

COMPLETED ON CALL 1 [ ] 2 [ ] ALTERNATE HOUSEHOLD [ ] C N S A ( ) 15  
[CIRCLE ONE]

[ ] TRANSIT DEPENDENT 16

HOUSEHOLD CLASSIFICATION DATA

First, we would like to ask you a few questions about your household.

1. How many persons, age 12 or over, are there living here at the present time, including yourself?

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 17
1 2 3 4 5 6 7 8 9 10 or More

2. How many motor vehicles in working condition are owned personally by you and other members of the immediate household? This should include all types of vehicles such as vans, small trucks, motorcycles, and regular passenger cars.

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 18
None 1 2 3 4 5 6 7 8 9 10 or More

3. How many of the persons in the household, age 16 or over, currently have California driver's licenses?

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 19
None 1 2 3 4 5 6 7 8 9 10 or More

4. How many are full-time or part-time students age 12 or over?

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 20
None 1 2 3 4 5 6 7 8 9 10 or More

5. How many are employed full time outside of the home? (30 hours per week or more)

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 21
None 1 2 3 4 5 6 7 8 9 10 or More

6. How many are employed part time outside of the home? (Less than 30 hours per week)

[CHECK ONE BOX] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 22
None 1 2 3 4 5 6 7 8 9 10 or More

7. Are there any children under 12 in the household who frequently ride public transit buses? By frequently we mean 3 days a week or more.

Yes [ ]^-1 No/None [ ]^-2 23

[IF "YES"--HOW MANY CHILDREN?] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 24
1 2 3 4 5 6 7 8 9 10 or More

8. Do you have a telephone? Yes [ ]^-1 No [ ]^-2 25

9. Do you own or rent? Own [ ]^-1 Rent [ ]^-2 26

10. How many persons reside in your household in each of the following age groups?

A. # Children (5 & under) \_\_\_\_\_ 27
B. # Children (6 to 11) \_\_\_\_\_ 28
C. # Children (12 to 14) \_\_\_\_\_ 29
D. # Children (15 to 17) \_\_\_\_\_ 30
E. # Adults (18 to 64) \_\_\_\_\_ 31
F. # Adults (65 & over) \_\_\_\_\_ 32
G. Total living at Home \_\_\_\_\_ 33

11. What language is normally spoken in your home? [CHECK BELOW]

English [ ]^-1 German [ ]^-4 Japanese [ ]^-7 Other [ ]^-0 34
Spanish [ ]^-2 Italian [ ]^-5 Korean [ ]^-8
French [ ]^-3 Chinese [ ]^-6 Vietnamese [ ]^-9

[WRITE IN]



SECTION II

1. During the past twelve months, have you postponed or canceled any trips around Southern California for recreation or entertainment because of the high cost of gasoline?

Yes [ ]-1 [PLEASE ANSWER QUESTION 1A]  
No [ ]-2 [PLEASE SKIP TO QUESTION 2]

51

1A. Did you consider using public transportation instead of an automobile for any of these trips?

Yes [ ]-1 [PLEASE ANSWER QUESTION 1B]  
No [ ]-2 [PLEASE SKIP TO QUESTION 2]

52

1B. Did you actually use public transportation for any trip for recreation or entertainment canceled because of the high cost of gasoline?

Yes [ ]-1  
No [ ]-2

53

2. Have you bought or considered buying an automobile within the past twelve months?

Yes - Bought Automobile [ ]-1 [PLEASE ANSWER QUESTION 2A]  
Yes - Considered Buying Automobile [ ]-2 [PLEASE ANSWER QUESTION 2A]  
No - [ ]-3 [PLEASE SKIP TO QUESTION 3]

54

2A. How important was the cost of gasoline to you in your decision about whether to buy and what type of automobile to buy?

Whether to buy or not?      -1                      -2                      -3                      -4  
                                 [ ]                      [ ]                      [ ]                      [ ]  
                                 DIDN'T              NOT VERY              SOMEWHAT              VERY  
                                 CONSIDER IT              IMPORTANT              IMPORTANT              IMPORTANT

55

What kind of car to buy?      -1                      -2                      -3                      -4  
                                 [ ]                      [ ]                      [ ]                      [ ]  
                                 DIDN'T              NOT VERY              SOMEWHAT              VERY  
                                 CONSIDER IT              IMPORTANT              IMPORTANT              IMPORTANT

56

3. Have you bought or considered buying or moving to a new home or apartment in Los Angeles County within the past twelve months?

Yes - Bought Home [ ]-1 [PLEASE ANSWER QUESTION 3A]  
Yes - Considered Buying or Moving [ ]-2 [PLEASE ANSWER QUESTION 3A]  
No - [ ]-3 [PLEASE SKIP TO QUESTION 4]

57

3A. How important was the availability of convenient public transportation to you in your decision about whether to buy or move to a particular home?

                                 -1                      -2                      -3                      -4  
                                 [ ]                      [ ]                      [ ]                      [ ]  
                                 DIDN'T              NOT VERY              SOMEWHAT              VERY  
                                 CONSIDER IT              IMPORTANT              IMPORTANT              IMPORTANT

58

4. Do you regularly commute from your home to school or a place of business or employment three or more days each week?

Yes [ ]-1 [PLEASE ANSWER QUESTION 4A]

1-61

No [ ]-2 [PLEASE SKIP TO QUESTION 6]

4A. What city or area do you commute to? [IF NOT A SPECIFIC CITY OR COMMUNITY SUCH AS HOLLYWOOD, PASADENA, OR LONG BEACH PLEASE WRITE IN THE COMMUNITY AREA SUCH AS "WILSHIRE AND WESTERN" OR "DOWNTOWN", ETC.]

62

[WRITE IN]

4B. What kind of transportation do you normally use in these commuting trips? [PLEASE CHECK ALL THAT APPLY]

Private automobile, van, truck, or other motor vehicle [ ]-1

INTERVIEWER: ASK Q7

63

Carpool or vanpool [ ]-2

Public transportation [ ]-3

[IF YOU CHECKED ONLY "PRIVATE AUTOMOBILE, VAN, ETC.", PLEASE ANSWER QUESTION 5--IF NOT, PLEASE SKIP TO QUESTION 6]

5. In the event of a severe gasoline shortage that prevented you from taking your car or other personal transportation to work, there are a number of actions that you might take to deal with the emergency. Please read the list of actions below and write in a "1" beside the action that would be most acceptable to you personally. Write in a "2" beside the action that would be second most acceptable --a "3" beside the third most acceptable, and on through the list until you write in a "7" beside the action that would be least acceptable.

A. Travel to work on foot, by bicycle, or some other way not involving the automobile or bus. \_\_\_\_\_ 64

B. Try to set-up a carpool with other employees where I work. \_\_\_\_\_ 65

C. Contact an organization like Commuter Computer to get in a car pool with people living near me who work in the same part of town. \_\_\_\_\_ 66

D. Use public transportation bus service. \_\_\_\_\_ 67

E. Buspooling, where you and others who work in your area would ride a special bus between work and a few places near where you live. \_\_\_\_\_ 68

F. Vanpooling, where you and others who work in your area would meet a 12-seat van that would take you directly to and from work. \_\_\_\_\_ 69

G. Taxipooling, where a taxicab would pick you and others who work near you up at home and take you directly to and from work. \_\_\_\_\_ 70

6. In the event of a severe gasoline shortage, there are a number of actions that the government might take to deal with the emergency. Please read the list of actions below and write in a "1" beside the action that would be most acceptable to you personally. Write in a "2" beside the action that would be second most acceptable--a "3" beside the third most acceptable, and on through the list until you write in a "7" beside the action that would be least acceptable.

A. An odd-even day gasoline sales system would be established \_\_\_\_\_ 71

B. A large tax would be added to the price of gasoline. \_\_\_\_\_ 72

C. Gasoline rationing would be established. \_\_\_\_\_ 73

D. Employees would be required to get to work by buspooling, carpooling, or vanpooling. \_\_\_\_\_ 74

E. Employers would be required to spread out the times at which employees start work. \_\_\_\_\_ 75

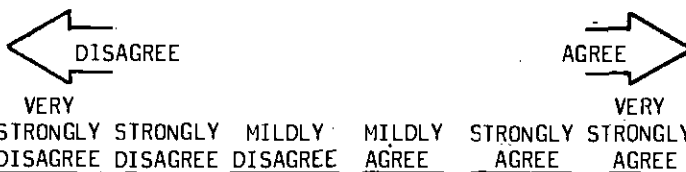
F. Employees would work four ten-hour days instead of five eight-hour days. \_\_\_\_\_ 76

G. People would be prohibited from driving one day each week. \_\_\_\_\_ 77

7. SEE QUESTION 4B

SECTION III

This section has been included to get some idea of how you feel and think about a number of things connected with public transportation.

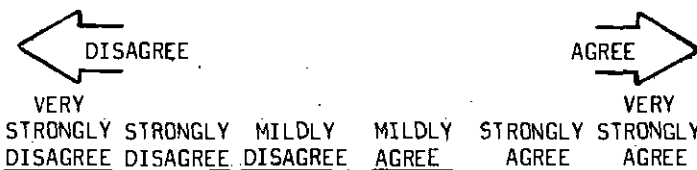


EXAMPLE

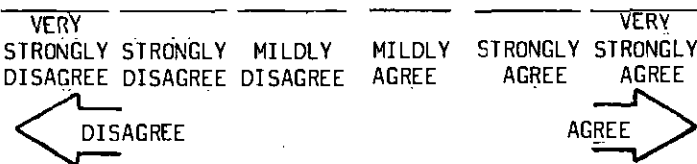
This questionnaire isn't as hard to fill out as I thought it would be.....[ ] [ ] [ ] [X] [ ] [ ]

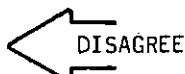
Please read each statement and put an "X" in the brackets that best describe your reaction. If you VERY STRONGLY DISAGREE, put an "X" in the box at the far left, as shown above. If you VERY STRONGLY AGREE, put the "X" in the box at the far right. If you MILDLY AGREE, or MILDLY DISAGREE, put an "X" in the middle brackets that best describe your reaction to the statement.

There are no "right" or "wrong" answers, and it isn't necessary to spend very much time on any one item. Just check off your first impressions.



	-1	-2	-3	-4	-5	-6	
Taking the bus costs a lot less than making the same trip by car.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	2   9
Driving a car to work wastes gasoline and contributes to the energy shortage.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Most RTD drivers are courteous to their passengers.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
There is a lot less chance of getting in an accident when you ride the bus.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	12
Buses run so seldom that you almost always have to wait a long time to get one.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Almost all of the RTD buses are old and worn out....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
People who can afford to own a car don't have any reason to ride the bus.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
I would use the bus if I knew when and where it was going.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	16
The full cost of bus service should be paid for by the users.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
People who ride the bus get to work on time more often than people who drive.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
People should start using buses and mass transit more in order to save energy.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Taking the bus instead of driving helps to reduce air pollution.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	20

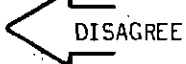


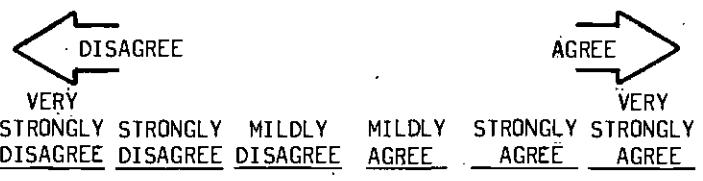


VERY STRONGLY DISAGREE	STRONGLY DISAGREE	MILDLY DISAGREE	MILDLY AGREE	STRONGLY AGREE	VERY STRONGLY AGREE
-1	-2	-3	-4	-5	-6

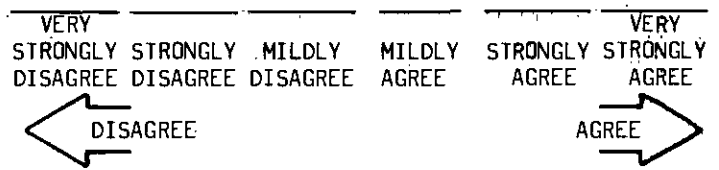
It just takes too long to get <u>anywhere</u> by bus.....	[ ]	[ ]	[ ]	[ ]	[ ]	2   21
Riding the bus gives you a chance to meet a lot of interesting people.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The buses used in this area are the older, worn out ones.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The timetables and the bus route maps are too complicated to use and understand.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Bus service is a public utility and should receive funds from taxes.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The trouble with riding a bus is the kind of people you have to ride with.....	[ ]	[ ]	[ ]	[ ]	[ ]	26
Even in bad weather, you can always depend on the bus getting you there on time.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Taking the bus instead of driving is a small price to pay for energy conservation.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The "Diamond Lanes" for buses are a good idea because they help to get people out of their smog-producing cars.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Buses do not run often enough.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Most people only ride the bus because they don't have a car to drive.....	[ ]	[ ]	[ ]	[ ]	[ ]	31
In terms of taxes paid, our community gets its fair share of Rapid Transit service.....	[ ]	[ ]	[ ]	[ ]	[ ]	
I am afraid I might get on the wrong bus or get lost somewhere.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The bus fare should be kept low so that more people will ride it.....	[ ]	[ ]	[ ]	[ ]	[ ]	
It hardly seems proper for someone in a top job to commute by bus.....	[ ]	[ ]	[ ]	[ ]	[ ]	
If gasoline were two dollars per gallon, I would take public transportation to work.....	[ ]	[ ]	[ ]	[ ]	[ ]	36
I would be embarrassed to be seen riding the bus.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Special traffic lanes for buses on the freeways and downtown surface streets are a good idea and there should be more of them.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Most RTD drivers are able to handle almost any trouble or problems that might come up on their buses.....	[ ]	[ ]	[ ]	[ ]	[ ]	39

VERY STRONGLY DISAGREE	STRONGLY DISAGREE	MILDLY DISAGREE	MILDLY AGREE	STRONGLY AGREE	VERY STRONGLY AGREE
------------------------	-------------------	-----------------	--------------	----------------	---------------------





	VERY STRONGLY DISAGREE	STRONGLY DISAGREE	MILDLY DISAGREE	MILDLY AGREE	STRONGLY AGREE	VERY STRONGLY AGREE	
Most RTD drivers are knowledgeable and able to give accurate information about RTD routes and schedules.....	-1 [ ]	-2 [ ]	-3 [ ]	-4 [ ]	-5 [ ]	-6 [ ]	2   40
I don't like to use public transit buses because there is too much of a chance of being robbed or hurt.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Most RTD bus operators are good drivers.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
The best way to make public transit buses safe is to put an armed guard on board.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Employers should be given tax credits or other financial incentives to provide their employees with alternatives to automobile travel to and from work, such as riding public transit, and car or vanpooling.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	44
I feel nervous when riding RTD buses because the drivers do not drive safely.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
All public transit bus drivers should be given some kind of weapon to help protect themselves and their passengers.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Employers should be responsible for providing employees with ways to travel to and from work other than alone by private automobile.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Most RTD drivers are friendly toward their passengers.....	-1 [ ]	-2 [ ]	-3 [ ]	-4 [ ]	-5 [ ]	-6 [ ]	48





1. Have you traveled away from home within Los Angeles County by automobile or other type of personal transportation at least once within the past seven days?

Yes [ ]-1 [PLEASE ANSWER QUESTIONS 1A AND 1B]  
 No [ ]-2 [PLEASE SKIP TO QUESTION 2]

2 | 51

- 1A. What was the main purpose of your last automobile trip? Was it going to and from work, school, shopping, or for some other reason? [PLEASE CHECK YOUR ANSWER BELOW]

To/from work or business [ ]-1  
 To/from school [ ]-2  
 To/from shopping [ ]-3  
 To/from doctor/dentist/medical [ ]-4  
 To/from friends, visiting or social [ ]-5  
 To/from other destinations [ ]-6

52

- 1B. Approximately how long did the trip take, going one way only?

Less than 15 minutes [ ]-1  
 15 to 29 minutes [ ]-2  
 A half hour to 44 minutes [ ]-3  
 45 minutes to 1 hour [ ]-4  
 More than an hour [ ]-5

53

2. Have you traveled away from home within Los Angeles County by public transit buses at any time within the past seven days?

Yes [ ]-1 [PLEASE ANSWER ALL REMAINING QUESTIONS IN THIS SECTION]  
 No [ ]-2 [PLEASE SKIP TO THE BEGINNING OF THE NEXT SECTION]

54

- 2A. How many trips to or from home by public transit buses have you made in the past seven days? For example, going to and from work every weekday would be 10 trips.

55

[WRITE IN NUMBER]

- 2B. Of these trips, how many were for each of the following purposes? Please write in the number beside each of the bus trip purposes listed below. [IF ANY OF YOUR TRIPS HAD MORE THAN ONE DESTINATION, COUNT THE TRIP IN BOTH PLACES]

	<u># TRIPS FOR THIS PURPOSE</u>	
To work or business	_____	57
To school	_____	58
To shopping	_____	59
To doctor/dentist/medical	_____	60
To friends, visiting or social	_____	61
To other destinations	_____	62
Returning home from above destinations	_____	63

- 2C. What was the purpose of the last trip away from home by public transit buses you took during the past seven days? [CHECK MORE THAN ONE ONLY IF THE TRIP HAD A COMBINED PURPOSE]

To/from work or business [ ]-1  
 To/from school [ ]-2  
 To/from shopping [ ]-3  
 To/from doctor/dentist/medical [ ]-4  
 To/from friends, visiting or social [ ]-5  
 To/from other destinations [ ]-6

65

3. Approximately how long did the trip take, going one way only? CHECK ONE BELOW

- Less than 15 minutes [ ]~1
- 15 to 29 minutes [ ]~2
- A half hour to 44 minutes [ ]~3
- 45 minutes to 1 hour [ ]~4
- More than an hour [ ]~5

2 | 68

4. What was the major reason for making this last trip by public transit bus instead of some other form of transportation? [CHECK ONE BELOW]

- I don't have a driver's license. [ ]~1
- I have a driver's license, but no personal transportation was available to me. [ ]~2
- I prefer the bus, even though I have a license and personal transportation, such as a car, van, motorcycle, etc., available. [ ]~3

69

5. How did you get to the place where you boarded the bus? Did you walk, get a ride from someone else, or drive your own car?

- Walk [ ]~1
- A Ride [ ]~2
- Drive [ ]~3

70

6. Did you only have to take one bus to get to your destination, or did you have to transfer buses?

- Made trip on one bus [ ]~1 [PLEASE SKIP TO NEXT SECTION]
- Had to transfer buses [ ]~2 [PLEASE ANSWER QUESTION 6A]

71

6A. How many different buses did you take during this last trip?

- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4 or more

72

7. Do you know how close the nearest place is where you would be able to get onto a public transit bus?

- Yes [ ]~1 [PLEASE ANSWER QUESTIONS 7A AND 7B]
- No/Not Sure [ ]~2 [PLEASE SKIP TO NEXT SECTION]

73

7A. Approximately how many blocks is it from here to the nearest place to get on a public transit bus? [CHECK ONE BELOW]

- Less than one block [ ]~1
- One to two blocks [ ]~2
- Three to four blocks [ ]~3
- Five to six blocks [ ]~4
- Seven to eight blocks [ ]~5
- Over eight blocks [ ]~6

74

7B. Do you know exactly where this bus line goes--that is what areas of the city it would take you to?

- Yes [ ]~1
- No [ ]~2
- Not Really Sure [ ]~3

75

8. **INTERVIEWER: ASK Q8**

Several services now being offered by the Southern California Rapid Transit District are listed below.

Please read through the list and put an "X" in the brackets beside each of the SCRTD services, depending on whether you have or have not heard of each one before today, and whether you have ever used that particular service.

	<u>NEVER HEARD OF THIS SERVICE</u>	<u>HEARD ABOUT IT, BUT NEVER USED IT</u>	<u>I HAVE USED THIS SERVICE</u>	
	-1	-2	-3	
Bus Stop Information Signs.....	[ ]	[ ]	[ ]	3   9
Downtown Los Angeles Minibus Service.....	[ ]	[ ]	[ ]	
El Monte Busway.....	[ ]	[ ]	[ ]	
Service to Special Attractions such as Hollywood Bowl, Racetracks, Dodger Stadium, the Rosebowl, etc...	[ ]	[ ]	[ ]	
Free RTD Timetables.....	[ ]	[ ]	[ ]	13
Free RTD Section Maps.....	[ ]	[ ]	[ ]	
Free Pamphlets on RTD Service.....	[ ]	[ ]	[ ]	
Monthly Pass.....	[ ]	[ ]	[ ]	
Park and Ride Service.....	[ ]	[ ]	[ ]	17
RTD Ticket Books.....	[ ]	[ ]	[ ]	
RTD Bus System Map.....	[ ]	[ ]	[ ]	
Subscription Bus Service.....	[ ]	[ ]	[ ]	
Telephone Information Service.....	[ ]	[ ]	[ ]	21

In this question, we would like to have you rate several kinds of local agencies on how good a job you think they are doing. Please read the name of each agency listed below and put an "X" in the brackets on the same line that best describes how good a job you think they are doing--poor, fair, good, very good, or excellent.

	<u>POOR</u>	<u>FAIR</u>	<u>GOOD</u>	<u>VERY GOOD</u>	<u>EXCEL- LENT</u>	<u>NEVER HEARD OF THEM</u>	<u>DON'T KNOW ANYTHING ABOUT THEM</u>	
	-1	-2	-3	-4	-5	-6	-7	
AMTRAK.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	22
CALTRANS.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Department of Water and Power (DWP).....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
City of Los Angeles.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	25
Los Angeles County.....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Metropolitan Water District (MWD).....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Southern California Rapid Transit District (SCRTD).....	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	28

## SECTION VI

1. Please put an "X" in the brackets that best describe how often you read each of the following Los Angeles newspapers, on the average.

	NEVER ~1	VERY SELDOM ~2	OCCASION- ALLY ~3	FAIRLY OFTEN ~4	ALMOST EVERY DAY ~5	
Civic Center News.....	[ ]	[ ]	[ ]	[ ]	[ ]	3   29
Downtown News.....	[ ]	[ ]	[ ]	[ ]	[ ]	
The Enterprise.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Herald-Examiner.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Hollywood Independent.....	[ ]	[ ]	[ ]	[ ]	[ ]	33
Imagen.....	[ ]	[ ]	[ ]	[ ]	[ ]	
La Opinion.....	[ ]	[ ]	[ ]	[ ]	[ ]	
La Prensa.....	[ ]	[ ]	[ ]	[ ]	[ ]	
L. A. Sentinal.....	[ ]	[ ]	[ ]	[ ]	[ ]	37
Long Beach Independent Press- Telegram.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Los Angeles Times.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Pasadena Star-News.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Pico Post.....	[ ]	[ ]	[ ]	[ ]	[ ]	41
San Gabriel Valley Tribune.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Santa Monica Evening Outlook.....	[ ]	[ ]	[ ]	[ ]	[ ]	
South Bay Daily Breeze.....	[ ]	[ ]	[ ]	[ ]	[ ]	
Daily News (Valley News and Green Sheet).....	[ ]	[ ]	[ ]	[ ]	[ ]	
Wilshire Press.....	[ ]	[ ]	[ ]	[ ]	[ ]	46

2. Please put an "X" in the brackets that best describe how often you read each of the following magazines, on the average.

	NEVER ~1	VERY SELDOM ~2	OCCASION- ALLY ~3	FAIRLY OFTEN ~4	ALMOST EVERY DAY ~5	
Mr. Te Ve	[ ]	[ ]	[ ]	[ ]	[ ]	47
Los Angeles Magazine	[ ]	[ ]	[ ]	[ ]	[ ]	
New West	[ ]	[ ]	[ ]	[ ]	[ ]	
Sunset	[ ]	[ ]	[ ]	[ ]	[ ]	50
T.V. Guide	[ ]	[ ]	[ ]	[ ]	[ ]	
"You" (Los Angeles Times)	[ ]	[ ]	[ ]	[ ]	[ ]	52

3. Please check the amount of time you spend on an average day in listening to AM and FM radio stations, watching television, reading newspapers, and magazines.

	NONE	UNDER 1 HOUR	1 TO 2 HOURS	MORE THAN 2 HOURS	
	-1	-2	-3	-4	
Listening to FM radio stations.....	[ ]	[ ]	[ ]	[ ]	3   53
Listening to AM radio stations.....	[ ]	[ ]	[ ]	[ ]	
Watching television programs.....	[ ]	[ ]	[ ]	[ ]	
Reading newspapers.....	[ ]	[ ]	[ ]	[ ]	
Reading magazines.....	[ ]	[ ]	[ ]	[ ]	57

HOUSEHOLD AND PERSONAL CLASSIFICATION DATA

The classification questions in this section have to do with both yourself and the head of your household, if other than yourself. For each question, please check one of the answers for yourself, and one for the head of your household if any.

	58	59	60	62
<u>APPROXIMATE YEARLY INCOME</u>	<u>Yourself</u>	<u>Total Household</u>	<u>Yourself</u>	<u>Head of Household</u>
No Income.....	[ ]~1		[ ]~1	[ ]~1
\$1 to \$5,000.....	[ ]~2	[ ]~2	[ ]~2	[ ]~2
\$5,000 to \$7,499.....	[ ]~3	[ ]~3	[ ]~3	[ ]~3
\$7,500 to \$9,999.....	[ ]~4	[ ]~4	[ ]~4	[ ]~4
\$10,000 to \$14,999.....	[ ]~5	[ ]~5	[ ]~5	[ ]~5
\$15,000 to \$19,999.....	[ ]~6	[ ]~6	[ ]~6	[ ]~6
\$20,000 to \$24,999.....	[ ]~7	[ ]~7	[ ]~7	[ ]~7
\$25,000 to \$29,999.....	[ ]~8	[ ]~8	[ ]~8	[ ]~8
\$30,000 to \$39,999.....	[ ]~9	[ ]~9	[ ]~9	[ ]~9
\$40,000 and over.....	[ ]~0	[ ]~0	[ ]~0	[ ]~0
	64	66		
<u>AGE</u>	<u>Yourself</u>	<u>Head of Household</u>	<u>Yourself</u>	<u>Head of Household</u>
12 to 15 years.....	[ ]~1		[ ]~1	[ ]~1
16 to 19 years.....	[ ]~2	[ ]~2	[ ]~2	[ ]~2
20 to 24 years.....	[ ]~3	[ ]~3	[ ]~3	[ ]~3
25 to 29 years.....	[ ]~4	[ ]~4	[ ]~4	[ ]~4
30 to 34 years.....	[ ]~5	[ ]~5	[ ]~5	[ ]~5
35 to 39 years.....	[ ]~6	[ ]~6	[ ]~6	[ ]~6
40 to 44 years.....	[ ]~7	[ ]~7	[ ]~7	[ ]~7
45 to 49 years.....	[ ]~8	[ ]~8	[ ]~8	[ ]~8
50 to 54 years.....	[ ]~9	[ ]~9	[ ]~9	[ ]~9
55 to 59 years.....	[ ]~0	[ ]~0	[ ]~0	[ ]~0
60 to 61 years.....	[ ]~x	[ ]~x	[ ]~x	[ ]~x
62 to 64 years.....	[ ]~R	[ ]~R	[ ]~R	[ ]~R
65 years or more.....	[ ]~1	[ ]~1	[ ]~1	[ ]~1
			68	69
<u>OCCUPATION</u>			<u>Yourself</u>	<u>Head of Household</u>
General Office/Clerical.....	[ ]~1	[ ]~1	[ ]~1	[ ]~1
Management.....	[ ]~2	[ ]~2	[ ]~2	[ ]~2
Proprietor.....	[ ]~3	[ ]~3	[ ]~3	[ ]~3
Professional.....	[ ]~4	[ ]~4	[ ]~4	[ ]~4
Sales.....	[ ]~5	[ ]~5	[ ]~5	[ ]~5
Skilled/Semi-Skilled/Labor.....	[ ]~6	[ ]~6	[ ]~6	[ ]~6
Technical.....	[ ]~7	[ ]~7	[ ]~7	[ ]~7
Service Worker.....	[ ]~8	[ ]~8	[ ]~8	[ ]~8
Unskilled Labor.....	[ ]~9	[ ]~9	[ ]~9	[ ]~9
High School or College Student..	[ ]~0	[ ]~0	[ ]~0	[ ]~0
Retired.....	[ ]~x	[ ]~x	[ ]~x	[ ]~x
Not Employed.....	[ ]~R	[ ]~R	[ ]~R	[ ]~R
Other _____				
			[PLEASE WRITE IN]	
<u>LAST SCHOOL ATTENDED</u>			<u>Yourself</u>	<u>Head of Household</u>
Grade School.....	[ ]~1	[ ]~1	[ ]~1	[ ]~1
High School.....	[ ]~2	[ ]~2	[ ]~2	[ ]~2
Trade School.....	[ ]~3	[ ]~3	[ ]~3	[ ]~3
College (1 or 3 years).....	[ ]~4	[ ]~4	[ ]~4	[ ]~4
College (4 years or more).....	[ ]~5	[ ]~5	[ ]~5	[ ]~5
Post Graduate.....	[ ]~6	[ ]~6	[ ]~6	[ ]~6

PERSONAL CLASSIFICATION

The classification questions in the following section have to do with you personally not with your household or the people you share your residence with.

- 1. What is your marital status? Married [ ]<sup>-1</sup> Not Married [ ]<sup>-2</sup> 3|70
- 2. What is your sex? Male [ ]<sup>-1</sup> Female [ ]<sup>-2</sup> 71
- 3. How long have you lived in Los Angeles County? \_\_\_\_\_ Years \_\_\_\_\_ Months 72
- 4. Do you currently have a valid California driver's licence? Yes [ ]<sup>-1</sup> No [ ]<sup>-2</sup> 74
- 5. Do you participate in a car pool to get to and from work?  
Yes - Private [ ]<sup>-1</sup> Yes - Sponsored by company [ ]<sup>-2</sup> No [ ]<sup>-3</sup> 75
- 6. Do you personally own an automobile, van, truck or other form of motorized personal transportation?  
Yes [ ]<sup>-1</sup> No [ ]<sup>-2</sup> 76
- 7. Do you have the use of an automobile, van, truck or other form of motorized personal transportation?  
Yes [ ]<sup>-1</sup> How Often? All of the time [ ]<sup>-1</sup> 77  
Occasionally [ ]<sup>-2</sup>  
No [ ]<sup>-2</sup> Special occasions [ ]<sup>-3</sup>
- 8. Are you currently a member of a labor union? Yes [ ]<sup>-1</sup> No [ ]<sup>-2</sup> 79
- WC [ ] 80

THANK YOU FOR YOUR COOPERATION. PLEASE RETURN THIS QUESTIONNAIRE IN THE ENVELOPE PROVIDED

FOR OFFICE USE ONLY

	<u>Least</u>					<u>Most</u>		
Q.7	_____	_____	_____	_____	_____	_____	4 9	
Q.8	Yes [ ] <sup>-1</sup>	No [ ] <sup>-2</sup>	Q.8A	Yes [ ] <sup>-1</sup>	No [ ] <sup>-2</sup>		18 19	
Q.9.	<u>Group 1 - Definitely Would</u>						20-28	
	_____							
	<u>Group 2 - Not Sure</u>						29-37	
	_____							
	<u>Group 3 - Definitely Would Not</u>						38-46	
	_____							
Q.10	Yes [ ] <sup>-1</sup>	No [ ] <sup>-2</sup>					47	
Q.8	A. Weekend	30 [ ] <sup>-1</sup>	20 [ ] <sup>-2</sup>	10 [ ] <sup>-3</sup>	D. 20 min.	30 [ ] <sup>-1</sup>	20 [ ] <sup>-2</sup>	10 [ ] <sup>-3</sup>
	B. Evening	30 [ ] <sup>-1</sup>	20 [ ] <sup>-2</sup>	10 [ ] <sup>-3</sup>	E. 10 min.	30 [ ] <sup>-1</sup>	20 [ ] <sup>-2</sup>	10 [ ] <sup>-3</sup>
	C. 30 min.	30 [ ] <sup>-1</sup>	20 [ ] <sup>-2</sup>	10 [ ] <sup>-3</sup>				