

**SUMMARY REPORT OF THE  
FY87 ON BOARD SURVEY  
OF SCRTD RIDERS**

**DRAFT**

SCRTD  
1986  
.S68d

## TABLE OF CONTENTS

1.0	INTROOUCION	1
1.1	PURPOSE	1
1.2	CONCLUSIONS	1
2.0	DEMOGRAPHICS OF RTD RIDERS	3
2.1	AGE	3
2.2	GENDER	3
2.3	ETHNIC BACKGROUND OF RIDERS	7
2.4	ANNUAL HOUSEHOLD INCOME	10
2.5	HOUSEHOLD SIZE AND NUMBER EMPLOYED	12
2.6	AUTOMOBILE OWNERSHIP	14
3.0	TRIP-RELATED CHARACTERISTICS	15
3.1	TYPE OF FARE PAID	15
3.2	MODE OF ACCESS/MODE OF EGRESS	18
3.3	VEHICLE AVAILABILITY	19
3.4	TRIP PURPOSE	20
3.5	NUMBER OF BUSES REQUIRED TO COMPLETE TRIP	21
4.0	COMPARABILITY OF DATA IN VARIOUS REPORTS REFERRED TO IN THIS DOCUMENT	22
5.0	METHODOLOGY	23
5.1	SAMPLE	23
5.2	QUESTIONNAIRE	23
5.3	INTERVIEWING	23
5.4	RESPONSE RATE	24
5.5	SOURCES OF NONRESPONSE BIAS, ITS MEASUREMENT AND CONTROL	25

## LIST OF TABLES

<u>NUMBER</u>	<u>SUBJECT</u>	<u>PAGE</u>
1	Rider Age by Ethnic Group	4
2	Rider Sex by Ethnic Group	5
3	Trip Purpose by Rider Sex	6
4	Ethnicity of RTD Riders by Day of Week	8
5	Annual Household Income of Ethnic Groups	9
6	Change in Annual Household Income (Average)	10
7	Household Income by Day of Week	11
8	Motor Vehicles in Household by Income	13
9	Average Number of Cars by Age of Rider	14
10	Type of Fare Paid by Weekday Riders	15
11	Fare Payment Method by Ethnic Group (For Boarding This Bus)	16
12	Types of Fare Paid by Hours of Bus Usage	17
13	Mode of Access to Bus	18
14	Vehicle Availability by Day of Week	19
15	Vehicle Availability by Ethnic Group	20
16	Ridership by Trip Purpose -- 1983 vs. 1986	20
17	Number of Buses Required to Complete Trip	21

## 1.0 INTRODUCTION

On July 1, 1985 the Proposition A subsidy for the 50 cent fare terminated. After three years of stable fares, the base fare for an RTD ride rose to 85 cents. Recognizing that accurate information about its riders and their riding behavior is vital to the planning process and policy decisions, the District Board of Directors approved an On-Board Survey of RTD Riders.

### 1.1 Purposes

*The authors of the nationally acclaimed best seller entitled "In Search of Excellence" make two basic assertions regarding firms that survive in a competitive environment. One is that their business environments (including their clientele) are constantly changing. The second is that successful firms are constantly adapting to the changing needs of their customer base.*

Transit is a publicly owned business. The Board of Directors has an interest in how its customer base is changing. The principal objective of the study was to address this need. Other study objectives were to:

- o calibrate and validate the District's travel simulation models;
- o validate the District's fare elasticity of ridership model;
- o measure the impact of the July 1, 1985 fare increase systemwide and by different rider segments and types of service; and
- o add to the demographic and travel data base of the District.

This report has been prepared to provide a summary of the results of the survey. This report is intended to serve as an easy reference source for the more commonly raised questions about RTD rider demographics and behavior. All data collected in the survey are recorded on magnetic tapes which can be reproduced. Numerous cross tabulations are available to users in a two volume set in the District Library.

### 1.2 Conclusions

The data obtained from the FY 87 On-Board Survey, by themselves as well as in comparison with data from prior on-board surveys, lead to several conclusions, with some far reaching implications for RTD services. Those findings are:



- There has been an increase in some elements of minority ridership, particularly Hispanic, which rose from 26% of the total in 1983, to 41% in 1986. This was coupled with a moderate increase in Asian ridership from 6% in 1981 to 8% in 1986. During the 1983 to 1986 interval, black ridership declined by 6% and white ridership declined by 16%. Each of these trends is consistent with analogous changes in the general population of Los Angeles County. Stated differently, if there are larger numbers of minority persons in the general population, there is a higher probability that more of the general population will become bus riders. <sup>3</sup>These changes in ethnicity suggest various service implications; among them:
  - A *continuing* need to have Spanish language versions of all informational and promotional materials.
  - The moderate growth in Asian ridership, coupled with the increase in Asian population, suggests that consideration be given to providing information in some Asian (Mandarin, Korean, Tagalog, Vietnamese and Japanese) languages.
  - The erosion of the white riders suggests that either that this group represents a smaller fraction of the total population (55.8% in 1981 to 46.8% in 1985) or District service is meeting fewer of their travel needs, or both.
  - The heavier use of RTD service on Sundays by Hispanics implies there may be opportunities for providing more service on Sundays to shopping and recreation areas patronized by Hispanics.
- The proportion of riders with a vehicle (discretionary riders), or access to a vehicle, has declined over the past three years, while the number of buses required to complete a trip has increased.

## 2.0 DEMOGRAPHICS OF RTD RIDERS

### 2.1 Age of Riders

Although, in comparison with 1980 Census data, the median age of RTD riders has been consistently younger, there has been a gradual aging of the RTD rider population. The earlier on-board surveys of 1978 and 1981 showed the median age of the weekday rider increasing from 26 to 27.4 years. The more recent on-board surveys of 1983 and 1986 show that median age has risen to above 28 years.

This increase is not a reflection of the general age of the population at large, since the median age of residents of Los Angeles County has been stable of late: 30.6 in 1983 and 30.3 in 1986.

More significant than the overall age is the age of specific subgroups of riders. While the mean age of white riders has remained at 39 from 1983 to 1986, the mean age of Hispanic and Black riders has increased to 30 in 1986 from 29 in 1983. Comparable age data for Asians were not available from the 1983 survey but was 28.6 in 1981. The mean age of Asian riders in 1986 is 33. A higher proportion of White riders are 65 years and older. More than half the Hispanic riders are under 30 years of age (Table 1).

### 2.2 Rider Gender

Prior surveys have indicated that women are in the majority among RTD riders. The 1986 survey confirms that this phenomenon still prevails, but to a lesser extent. In 1978 over 58% of the riders were females. In 1981, the percentage of female riders declined to 53.5%. In 1986, this proportion has declined even further, to 52%.

Rider gender mix varies by ethnicity, trip purpose and availability of a vehicle for the trip. Thus, it is seen that while among Whites and Asians there is an equal proportion of males and females, among Hispanics, and more so among Blacks, female riders outnumber male riders (Table 2).

Two-thirds of the riders on medical trips are female. Females are also in the majority on school and shopping trips. On recreational trips, however, 60% of the riders are male. Males and females are equally represented on work related trips (Table 3). Among those riders who had a vehicle available for "this" trip, over one-half are male. Among riders who had no vehicle available for "this" trip, more than half are female.

TABLE 1

RIDER AGE BY ETHNIC GROUP

	<u>Total Riders</u>	<u>White</u>	<u>Hispanic</u>	<u>Black</u>	<u>Asian</u>
AGE:					
Less than 15	3%	2%	2%	3%	3%
15 - 19	18	13	18	21	22
20 - 29	34	26	41	33	27
30 - 39	20	18	21	24	20
40 - 49	10	11	9	8	10
50 - 59	6	9	4	5	6
60 - 64	2	4	2	2	4
65 & older	5	14	2	3	6
Average Age (mean)	32.2	39.0	29.7	30.3	33.3

TABLE 2

RIDER SEX BY ETHNIC GROUP

	<u>Male</u>	<u>Female</u>
White	51%	49%
Hispanic	48	52
Black	44	56
Asian	50	50
All Riders	48	52

TABLE 3

TRIP PURPOSE BY RIDER SEX

	<u>Male</u>	<u>Female</u>
Home	50%	50%
Work	50	50
School	46	54
Shopping	41	59
Recreation	60	40
Medical	23	67
All Riders	48	52

### 2.3 Ethnic Background of Riders

During the past 30 years, the ethnic composition of Los Angeles County has changed dramatically. In 1950, more than 86% of the County's residents were White; Blacks and Hispanics comprised less than 7% each of the population. By 1986 Whites comprised only 45% of Los Angeles County's population, with Hispanics accounting for 27%, Blacks for 11% and Asians for less than 7%.<sup>4</sup>

The ethnic composition of RTD riders differs significantly from that of the County population. Minority riders predominate to a greater extent than their representation in the general population would warrant. Only 20% of all RTD weekday riders are White. More than 40% are Hispanic and 22% are Black. Eight percent are Asian as compared to 6% in 1981. The proportion of Hispanic riders is higher on Sundays than on weekdays or Saturdays (Table 4).

Ethnic composition of riders also varies by income level (Table 5). More than half the riders with an annual household income of under \$10,000 are Hispanic. More than one-third of those whose annual household income is \$35,000 or more are White.

TABLE 4

ETHNICITY OF RTD RIDERS  
By Day of Week

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
White	22%	21%	18%
Hispanic	45	47	50
Black	24	27	24
Asian	9	5	8

TABLE 5

ANNUAL HOUSEHOLD INCOME OF ETHNIC GROUPS

	Under \$10,000	\$10,000- \$19,999	\$20,000- \$34,999	\$35,000- \$49,999	\$50,000 & Over
White	17%	22%	29%	35%	39%
Hispanic	57	43	32	22	22
Black	20	26	28	29	28
Asian	6	9	11	14	11



## 2.4 Annual Household Income

The 1986 survey found an income pattern similar to that seen in the 1983 survey: Whites have the highest average income, followed by Asians and Blacks, with Hispanics still averaging the lowest annual household income (Table 6). The data below shows the relative annual income of the four ethnic groups for the two survey years:

TABLE 6  
CHANGE IN ANNUAL HOUSEHOLD INCOME (AVERAGE)

	<u>1983</u> <u>ON BOARD</u> <u>SURVEY</u>	<u>1986</u> <u>ON BOARD</u> <u>SURVEY</u>	<u>PERCENT</u> <u>CHANGE</u>
WHITE	\$17,000	\$23,200	+37%
ASIAN	16,500	21,780	+32
BLACK	13,000	19,750	+52
HISPANIC	10,500	12,569	+20

The income levels seen for the various ethnic groups become even more differentiated as the number of persons per household is compared. With an average of 4.6 persons in the household, Hispanics average \$2,732 per person in the household. In contrast, Whites, with 2.7 persons per household, average \$8,592 per capita. The comparable numbers for Blacks and Asians are \$5,486 and \$5,445, respectively.

Annual household income also varies by day of week. Weekday riders average \$17,890 in annual household income. On Saturday and Sunday, average annual household income is \$15,300 and \$15,220, respectively. (Table 7).

There is a considerable difference between the annual household income of male riders and female riders. The average annual household income of male riders is \$19,610. The comparable figure for female riders is \$15,510.

*By way of contrast average annual household income for the general population at that time was \$25,584.*

TABLE 7

## HOUSEHOLD INCOME BY DAY OF WEEK

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
Less than \$5,000	24%	27%	31%
\$ 5,000 - \$ 9,999	21	23	22
\$10,000 - \$14,999	14	15	14
\$15,000 - \$19,999	12	10	8
\$20,000 - \$24,999	8	8	7
\$25,000 - \$34,999	9	8	7
\$35,000 - \$49,999	6	5	5
\$50,000 - \$74,999	4	2	3
\$75,000 or more	2	2	3
Average Income	\$17,890	\$15,300	\$15,220

## 2.5 Household Size and Number Employed

Overall, 11% of all RTD riders live alone. Major variations are seen by ethnic group. Whereas 27% of Whites live alone, only 4% of Hispanics, 7% of Asians and 11% of Blacks live in one-person households.

By the same token, Hispanics are seen to have the largest households, averaging 4.6 persons per household. Whites have the smallest households with an average of 2.7 persons. Blacks and Asians are between these two extremes with 3.6 and 4.0 persons per household, respectively.

Not surprisingly perhaps, there is a direct correlation between age and single person households. That is older riders are more likely to be living alone.

Overall, there is an average of 2.5 persons employed per rider household. Once again, the greatest variations are seen by ethnic group. In this instance, Hispanics and Asians, with the largest average households, also have the highest number of employed persons per household -- 2.7 among Hispanics and 2.6 among Asians. Blacks average 2.3 employed persons and Whites average 2.2 employed persons per household.

There is also a strong relationship between annual household income and average number of employed persons in the household. The \$10,000 - \$14,999 annual household income group averages the lowest number of employed persons -- 2.3. As income increases from this level, so does the average number of employed persons. At the \$50,000 or more income level, the average number of employed persons per household has risen to 3.1.

TABLE 8

## MOTOR VEHICLES IN HOUSEHOLD BY INCOME

	<u>No Vehicles</u>	<u>One</u>	<u>Two</u>	<u>Three</u>	<u>Four Or More</u>	<u>Average</u>
Under \$ 5,000	31%	23%	12%	12%	12 %	.97
\$ 5,000 - \$ 9,999	26	19	12	10	12	1.01
\$10,000 - \$14,999	18	16	10	10	8	1.05
\$15,000 - \$19,999	11	10	13	10	7	1.25
\$20,000 - \$24,999	7	10	13	7	10	1.37
\$25,000 - \$34,999	5	10	13	14	8	1.55
\$35,000 - \$49,999	1	7	13	14	9	1.79
\$50,000 and over	1	3	14	23	34	2.34

## 2.6 Ownership of Automobiles

Overall, 15% of RTD riders have no automobile (or other private vehicle) in the household. Automobile ownership is directly correlated to income: as income increases, so does the proportion of riders who own an automobile. Thus, while those with an annual income of less than \$5,000 have, on the average, just under one car per household, those in the \$50,000 or more income bracket average over two cars per household (Table 8).

Ownership of automobiles varies inversely with age. As age increases, car ownership decreases. The table below illustrates this:

TABLE 9

### AVERAGE NUMBER OF CARS *IN HOUSEHOLD* BY AGE OF RIDER

Under 18	1.94
18 - 24	1.49
25 - 34	1.20
35 - 54	1.11
55 - 64	1.08
65 and older	.78
Total Sample	1.33

*Average ownership of automobiles per household in the general population about this time was 1.60.*

### 3.0 TRIP-RELATED CHARACTERISTICS

#### 3.1 Type of Fare Paid

Half of all weekday riders use a pass of some type for their rides. It is difficult to compare results from the 1986 survey with those of 1983 and 1981 because the fare data for 1983 were from a fare check, while in 1986 the data are supplied by the rider. In the 1981 survey, the use of transfers was combined with the cash/ticket/token fare category. Nevertheless, there is a high degree of consistency among the results of the three surveys. There has been very little change in the proportion using a regular monthly pass, or a senior citizen pass. Use of student and college/vocational passes was higher in 1983 than in 1981 or 1986. Table 10 presents a summary of the fare data from the three surveys:

TABLE 10

#### TYPE OF FARE PAID BY WEEKDAY RIDERS

	SURVEY YEAR		
	<u>1986</u>	<u>1983*</u>	<u>1981</u>
Cash/Ticket/Token	36%	42%	50%
Transfer	13	**	**
Regular Monthly Pass	26	25	24
Student Pass	12	15	11
Senior Citizen Pass	7	8	7
College/Vocational Pass	4	7	5
Handicapped Pass	2	3	3

\* Data from fare check

\*\* Transfers not broken out

As shown in Table 11, fare payment method varies by ethnic group. Cash fares are much more common among Hispanic riders than any other group. Asians have a disproportionately greater use of student and college/vocational passes, while Whites have a higher incidence of senior citizen pass use.

Fare payment method shows differences by time of day (Table 12). Those who use a student pass, regular or express monthly pass are more likely to ride during the peak hours. Those who use a cash/ticket/token fare, a handicapped pass and especially a college/vocational pass, or senior citizen pass, are more likely to ride during off-peak hours.

TABLE 12

TYPES OF FARE PAID BY HOURS OF BUS USAGE

	<u>PEAK</u>	<u>OFF-PEAK</u>	<u>NO RESPONSE</u>	<u>TOTAL</u>
Cash/ticket/token	46%	54%	-	100%
Handicapped pass	43%	55%	2	100%
College/vocational pass	38%	62	-	100%
Senior Citizen pass	33%	66	1	100%
Regular monthly pass	54%	46	-	100%
Express monthly pass	67%	31	2	100%
Student pass	60%	40	-	100%

As anticipated, student and college/vocational pass users report the lowest average age -- 20.9 -- while senior citizen pass users have the highest average age -- 64. Regular pass users and handicapped pass users are older than the average rider with mean ages of 34.0 and 35.7, respectively. Cash users are younger than average, with a mean age of 29.7.

By income categories, handicapped pass users have the lowest average household income of all fare method groups -- \$12,620 annual household income. They are followed by senior citizen pass users who average \$13,720 a year. The highest annual income is reported by cash users, \$17,906. Regular pass users are next with an average annual income of \$16,238. Student pass users had an average annual income of \$19,451.

### 3.2 Mode of Access/Mode of Egress

Two-thirds of weekday RTD riders access the bus stop on foot (Table 13). The proportions walking to the bus are higher for Saturday (70%) and Sunday (69%). Of those who walk to the bus, 83% have to walk less than four blocks.

Overall, 25% of riders transfer to the bus from another RTD line; 2% report transferring from another bus system. Although only 4% access the bus by auto, either as a driver or as a passenger, 9% of those on express lines access the bus stop by auto.

These access mode data, which are for boarding patrons, closely parallel those for patrons alighting from the bus. Thus, upon leaving the bus, 65% of weekday riders report they will walk, 26% will transfer to another RTD line, 2% will drive or be driven to their final destination, 2% will transfer to another bus system and the remaining 5% gave "other" as a response or gave no response.

TABLE 13  
MODE OF ACCESS TO BUS

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
Walked - total	67%	70%	69%
Less than 1 block	23%	24%	26%
1 - 3 blocks	60	58	57
4 - 7 blocks	14	15	15
More than 7 blocks	3	3	2
Transferred from another RTD line	25	22	24
Drove/was driven	4	3	3
Transferred from another bus system	2	2	1
Other	*	1	1
No response	2	2	2

\* Less than 0.5%



### 3.3 Vehicle Availability

More than one in five weekday riders had a vehicle available, as either the driver or as a passenger, for the trip on RTD. Saturday and Sunday riders are less likely to have had access to a vehicle for this trip.

There has been an overall decrease in vehicle availability for the surveyed trip since the 1983 survey (Table 14). The change is most apparent among weekday and Saturday riders, as the table below illustrates:

TABLE 14  
VEHICLE AVAILABILITY BY DAY OF WEEK

	<u>Weekday</u>		<u>Saturday</u>		<u>Sunday</u>	
	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>
Yes, as driver	11%	19%	8%	13%	7%	9%
Yes, as passenger	11	11	12	13	11	8
No	78	70	80	74	82	83
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Vehicle availability varies by ethnic group. Asians are more likely to have a vehicle available than any other ethnic group; Hispanics are least likely to have a vehicle available for the trip.

TABLE 15  
VEHICLE AVAILABILITY BY ETHNIC GROUP

	<u>Yes, As Driver</u>	<u>Yes, As Passenger</u>	<u>No</u>	<u>Total</u>
Total riders	9%	11	80	100%
White	14%	9	77	100%
Hispanic	6%	11	83	100%
Black	11%	9	80	100%
Asian	10%	22	66	100%

Vehicle availability increases as income increases. Riders on express lines are more likely to have a vehicle available for the trip than those on local lines.

### 3.4 Trip Purpose

Overall, work predominates as the major trip purpose. School is a distant second, followed by shopping. There has been a decrease in weekday work-related trips since the 1983 survey, but an increase in Sunday work-related trips. The sharpest change, however, is seen in the decrease from 1983 levels in recreation/visiting trips, especially on Sundays.

TABLE 16  
\*RIDERSHIP BY TRIP PURPOSE -- 1983 vs 1986

	<u>Weekday</u>		<u>Saturday</u>		<u>Sunday</u>	
	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>
Work	54%	55%	44%	41%	40%	26%
School	24	22	6	2	3	1
Shopping	11	11	30	33	27	29
Medical	7	4	5	2	3	3
Recreation/Visiting	4	8	15	22	27	4

\* Totals are greater than 100% because of double counting of trips which are not home-based.

### 3.5 Number of Buses Required for Trip

There has been a noticeable increase in the number of buses required to complete a trip since the 1983 survey. In 1983, the majority of linked trips on weekdays and Saturdays required only one bus. In comparison, 1986 data show that the majority of riders required more than one bus to complete their trip. The table below shows the results from the two time periods:

TABLE 17

#### NUMBER OF BUSES REQUIRED TO COMPLETE TRIP

	<u>Weekday</u>		<u>Saturday</u>		<u>Sunday</u>	
	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>
One	43%	54%	47%	52%	46%	48%
Two	39	39	36	42	37	43
Three	12	6	11	5	11	8
Four or more	6	1	6	1	6	1
Total	100%	100%	100%	100%	100%	100%
Average	1.80	1.54	1.75	1.54	1.76	1.64

#### 4.0 COMPARABILITY OF DATA IN VARIOUS REPORTS REFERRED TO IN THIS DOCUMENT

In accordance with sound management procedures, SCRTD regularly counts fares paid and boarding passengers by line. The objectives of these fare counts are to give management control over revenues and to discern the need for service adjustments. Results of these surveys are regularly issued in a documents known internally as Monthly Patronage Reports. The Monthly Patronage Report data were used as the control numbers to which the On-Board Survey data were expanded.

The On-Board Survey was done to achieve *the following* set of objectives which were:

- determine rider attributes to discern how service might be made more attractive,
- calibrate and validate the District's simulation model (which is done by comparing the volume of trips between zone pairs),
- validate the fare elasticity model,
- measure the impact of the July 1, 1985 fare increase system-wide by rider segments and type of service (which was defined to obtain data to compare counts on four bus lines), and
- add to the District's demographic and travel base.

The text compares the results of On-Board Surveys conducted in 1981, 1983 and 1986. The reader is reminded that these surveys are not truly longitudinal. The successive surveys changed in terms of questions included on the questionnaires and objectives of each survey in each succeeding generation. The 1983 Survey, for example, did not include transferees. The 1986 Survey excluded children under 12 years of age and all passengers boarding between 8:00 p.m. and 5:00 a.m.

## 5.0 METHODOLOGY

The 1986 SCRTD On-Board Survey was conducted by Market Opinion Research (MOR) of Detroit, Michigan. A detailed report of the methodology was prepared by MOR and is available to interested agencies, firms and individuals. For this report, only a brief review is presented below.

### 5.1 Sample

SCRTD provided MOR with three separate samples of half bus runs. A total of 200 weekday, 100 Saturday and 100 Sunday half-day runs were stratified by three ridership levels and four service levels.

The total sample yielded 1,542 trips as follows:

Total weekday trips sampled	751
Total Saturday trips sampled	409
Total Sunday trips sampled	382

### 5.2 Questionnaire

A draft questionnaire was provided by SCRTD. MOR formatted the questionnaire on 12 x 11 inch light card stock, folded to 6 x 11 inches. One panel contained the English version of the questions, the other panel had the Spanish version. A business reply mail permit and SCRTD's address were on the reverse side to allow mail backs.

Each questionnaire was sequentially numbered. These numbers were used for control of interviewer assignments, for identifying the numbers of questionnaires completed, refused, not distributed or carried off the bus.

### 5.3 Interviewing

All interviewers were trained by MOR and attended a 2-3 hour briefing session prior to the start of the survey. After completing two initial assignments, each attended a debriefing session of 1-2 hours. All information was repeated in Spanish for the Spanish-speaking interviewers. Approximately 30% of interviewers were Spanish-speaking.

Interviewers were responsible for several activities in addition to distributing and collecting questionnaires on board their assigned bus. They kept a tally of total boardings, sum of eligible male riders, sum of eligible female riders, sum of children under 12 (ineligible) and sum of blind or other disabled person unable to respond to the questionnaire (ineligible). Also, they tallied the number of boardings by Blacks, Whites, Hispanics, Asians and Other ethnic categories.

As a control *measure*, District personnel monitored a high percentage of the bus runs to ensure that interviewers were on-board. In those cases in which no interviewers were observed, MOR was notified to repeat the survey on a subsequent day.

#### 5.4 Response Rate

The total count of eligible respondents was 77,392. Of that total, 37,227 were males (48.1%) and 40,165 were females (51.9%). In addition, 8,425 non-eligible boardings were tallied, of which 7,203 were children under 12 and 1,222 were blind or other disabled who were unable to respond.

A total of 67,150 questionnaires was distributed. The following table shows the results of this distribution:

Total eligible respondents	77,392
Total questionnaires distributed	67,150
Completed questionnaires returned	24,145
Incomplete questionnaires returned	3,460
Refusals	20,406
Missing questionnaires (carried off bus)	19,139
Completed questionnaires as % of distribution	36.0%
Incomplete questionnaires as % of distribution	5.1
Refusals as % of distribution	30.4
Missing questionnaires as % of distribution	<u>28.5</u>
	100.0%
Completed questionnaires as % of eligible respondents	31.2%

MOR claims to have achieved a confidence interval of 95% at plus or minus 0.65%.

## 5.5 Sources of Nonresponse Bias, Its Measurement and Control

In self administered surveys nonreponse bias arises whenever some member of the sample either fails to turn in a completed questionnaire or fails to answer all of the questions on it. All such surveys, including the U.S. Census, involve nonresponse bias. According to one authority the average nonresponse rate is 70%. In this case the rate was 68.8%, slightly lower than the average. This section identifies the sources of nonresponse bias, and describes strategies used to control it. The amount of nonresponse associated with each of the 17 questions is shown in the cross tabulations in the District Library.

Sources of nonresponse bias were passengers who were:

1. either less than 12 years of age or whose physical disability prevented their completing the questionnaire;
2. who boarded buses after 8:00 p.m.;
3. who failed to answer one of the 17 questions on the questionnaire or who chose not to respond.

The District regularly counts passengers on all bus lines and publishes the results. These counts Monthly Patronage Reports serve as control totals to which all on board survey counts were factored.

A stratified cluster sample of half bus runs was randomly selected in this case. It was predicated on four strata of bus lines based on levels of boardings/hour and three days of the week (weekday, Saturday, Sunday).

Each interviewer was instructed to count and record the number of race and sex of each boarding passenger. A separate count was maintained on passengers of less than 12 years of age. Of the 17 questions included on the questionnaire those which manifested the highest nonresponse were questions dealing with age, income, number of automobiles or persons in household. Virtually all surveys manifest high nonresponse on questions dealing with age and income. This may be attributable to a respondent's attitude that such questions represent an unnecessary invasion of privacy. Nonresponse emanating from other questions are probably related to cultural factors.

A total sample of 77,392 produce 24,145 completed questionnaires from a stratified sample of 1,541 half bus runs. The first factor which produced nonresponse bias was the presence of passengers who were either too young or had a physical disability (blindness) which prevented their completing the questionnaire. Included in this group were 7,203 children of 12 years of age or less along with 1,222 who had some disability.

As noted above a count was maintained of this group and it became the basis for one expansion factor.

The consultant experienced difficulty in recruiting personnel willing to work after 8:00 p.m. However, the District knew the number of half runs scheduled for counting and also knew from its ongoing fare counts the number of passengers on those half runs. These counts became the basis for a third expansion factor.



## REFERENCES & FOOTNOTES

1. D. Woodbury, FY 88 through FY 90 SRTP Fare Report, Los Angeles: Southern California Rapid Transit District, 1987.
2. Peters, Thomas J. and Waterman, Robert H. Jr., In Search of Excellence, New York: Warner Books, 1982, p. 12
3. 1980 Census of Population, Volume 1, Characteristics of Population, U.S. Bureau of Census, 1981, pages 6 - 657.
4. Current Population Survey, Government Printing Office, Washington,
5. Stopher, Peter R. and Meyburg, Arnim M.: Survey Sampling and Multivariate Analysis for Social Scientists and Engineers, Lexington: Lexington Books, 1979.

MARKET OPINION RESEARCH



**SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
1986 ON-BOARD SURVEY  
VOLUME I  
SURVEY METHODOLOGY AND RESULTS**

Prepared for:

**Southern California Rapid Transit District**

By:

**Market Opinion Research**

June 1986  
G86087

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	1
A. Summary Results .....	1
B. Error and Sources of Bias .....	3
C. Market Opinion Research Survey Staff .....	4
<b>Chapter 1 SAMPLING</b> .....	5
<b>Chapter 2 QUESTIONNAIRE</b> .....	7
<b>Chapter 3 INTERVIEWING</b> .....	9
A. Interviewer Training .....	9
B. Interviewer Instructions and Activities .....	10
C. Interviewers .....	17
D. Computer Database Record Control .....	17
E. Interview Dates .....	19
<b>Chapter 4 RESPONSE RATE, EXPANSION PROJECTIONS,     GEOCODING AND DATA PROCESSING</b> .....	20
A. Counted Passengers, Characteristics and Response Rate .....	20
B. Expansion to Project to Weekly Boarding Count .....	23
1. Response Weight by Sex .....	23
2. Trip Weight .....	24
C. Characteristics of Riders age 12 and Over on Projected Weekly Passenger Trips .....	25
D. Geocoding of Origins and Destinations .....	26
E. Editing, Coding and Data Processing .....	27
<b>Chapter 5 RECOMMENDATIONS FOR FUTURE ON-BOARD SUR-     VEYS</b> .....	28
A. Survey Problems .....	28
B. Recommendations .....	29

<b>APPENDIX QUESTIONNAIRE .....</b>	<b>31</b>
<b>APPENDIX A INTERVIEWER INSTRUCTIONS .....</b>	<b>32</b>
<b>APPENDIX B HALF RUN RECORD CONTROL REPORTS .....</b>	<b>33</b>

## LIST OF TABLES

<b>EXECUTIVE SUMMARY</b> .....	1
<b>Chapter 1 SAMPLING</b> .....	5
1.1 SAMPLING FRAME FOR 1986 ON-BOARD SURVEY .....	6
<b>Chapter 2 QUESTIONNAIRE</b> .....	7
<b>Chapter 3 INTERVIEWING</b> .....	9
<b>Chapter 4 RESPONSE RATE, EXPANSION PROJECTIONS,     GEOCODING AND DATA PROCESSING</b> .....	20
4.1 ON-BOARD SURVEY PASSENGER COUNTS FOR 396 BUS HALF-RUNS (1,542 TRIPS) .....	20
4.2 ON-BOARD SURVEY COUNTED PASSENGER CHARAC- TERISTICS FOR 396 BUS HALF-RUNS (1,542 TRIPS) .....	21
4.3 ON-BOARD SURVEY RESULTS FOR 396 BUS HALF RUNS (1,542 TRIPS) .....	22
4.4 CHARACTERISTICS OF PASSENGERS AGE 12 AND OVER BASED ON EXPANSION OF RESPONDENTS TO PAS- SENGER TRIPS .....	25
<b>Chapter 5 RECOMMENDATIONS FOR FUTURE ON-BOARD SUR-     VEYS</b> .....	28
<b>APPENDIX QUESTIONNAIRE</b> .....	31
<b>APPENDIX A INTERVIEWER INSTRUCTIONS</b> .....	32
<b>APPENDIX B HALF RUN RECORD CONTROL REPORTS</b> .....	33

## EXECUTIVE SUMMARY

### A. Summary Results

The 1986 On-Board Survey for the Southern California Transit District conducted by Market Opinion Research resulted in collection of 24,145 usable questionnaires from riders surveyed on 1,542 trips on 396 bus "half runs" between April 22 and June 9, 1986. The usable questionnaires represent a response rate of 31.1% of the eligible passengers counted on those "half runs" and 36.0% of the eligible passengers who actually were handed a questionnaire. Eligible passengers were defined as persons 12 and over who boarded the bus.

Of the 24,145 usable completed questionnaires, approximately 22,000 were completed by passengers while on the bus on which they received the questionnaire. The remaining approximate 2,100 were carried off the bus, completed later by the respondent and returned using a Business Reply mailer printed on the questionnaire.

The questionnaire was printed in English on one side and in Spanish on the other side.

Projections to expand the completed questionnaires to the population of passenger trips of those age 12 and over who ride buses in a week between the hours of 6 a.m. and 8 p.m. show a boarding population of 6,645,600. Projection to expand the count of children adds another 540,200 passenger trips to give a total expansion estimate of 7,185,800 passenger trips (boardings) in a week in the hours between 6

## Market Opinion Research

a.m. and 8 p.m. This is a conservative estimate based on actual counts of boarding passengers tabulated by interviewers. Despite best efforts by interviewers it is possible some small percentage of boarding passengers did not get counted.

Projection to expand the completed survey sample to project passenger trips has been made by applying two weights to each respondent who completed a survey questionnaire: (1) A weight to correct for non-response by projecting, by sex, to all boarding passengers of the same sex on the trips on the surveyed "half run." (2) A weight to project all trips in the surveyed "half run" to the total number of such trips operated by the RTD system in a week between 6 a.m. and 8 p.m.

Three samples, each divided into four strata, were selected for the survey by RTD. There were separate samples for weekday (Monday to Friday), Saturday and Sunday trips. The strata were defined by three levels of service for Local trips and all Express trips were in the fourth stratum.

Sampling points for the survey were clusters of trips defined as "half runs," limited to trips which began and ended between the hours of 6 a.m. and 8 p.m. A run is all the trips a bus (vehicle) makes on its route during those hours. A "half run" is one-half of those trips. The sampling point "half runs" were randomly alternated between the first half and second half of the time period.

This report presents results of the 1986 On Board-Survey in two volumes. Volume I describes the survey methodology and results. An Appendix to Volume I presents results for each sampling point "half run" and shows characteristics of the "half run," eligible respondent passenger counts categorized by the sex of those 12 and over, plus counts of children and persons with a handicap such as blindness which

## Market Opinion Research

made them ineligible to fill out a self-administered questionnaire. These individual "half run" reports also show interviewer classification of the ethnicity of each rider and the percentage of the eligible passengers who completed a questionnaire, left one incomplete, refused, or carried the questionnaire off the bus.

Volume II is comprised of computer crosstabulations of survey results, projected to the total weekly passenger trip population age 12 and over. Crosstabulations have been made for Total Passenger Trips (boardings) and for passenger trips (boardings) by 42 subgroups which are described in the preface to the data tables.

### B. Error and Sources of Bias

No estimate can be made of sampling error for on-board surveys which typically have high non-response levels. The response rate for this survey at 31.2% of eligible passengers is much higher than on-board surveys usually produce. However, it should be kept in mind that those least likely to respond are:

- Persons with low literacy levels, or illiterate in English or Spanish.
- Passengers who are on-board the bus for a very short ride and do not have time to complete the questionnaire. Some of these used the mailback option.

Weighting to actual ridership on each "half run", done separately for men and women to compensate for any differential in response rates by sex, adjusts for non-response to make survey results more closely reflect the passenger trip population but cannot compensate for any literacy or short ride bias.

Another possible source of error is in the counting of actual passengers boarding each bus "half run" in the sample. Interviewers were given three tasks: (1) To tabulate boarding passengers, score those 12 and over by sex, tabulate children and han-



## Market Opinion Research

dicapped. (2) Hand questionnaires to eligible passengers 12 and over and ask them to fill them out. (3) Score all passengers by ethnicity. Interviewers were told that the priority task was the first one, (1), the counting and tabulating of boarding passengers with the sex/child/handicapped scoring in order to get as accurate a count as possible of actual boardings. A single interviewer was assigned to each bus "half run" with light (less than 50 average boardings per hour) or medium (50-99 average boardings per hour) density. Two interviewers were on each bus "half run" designated as heavy density (100 or more boardings per hour). While every passenger who was counted is an actual passenger, it is possible that some passengers were missed in the counting. Thus it should be assumed that estimates made by projecting (expanding) completed questionnaires to the number of counted passengers, and then projecting (expanding) those "half run" trips to all trips may somewhat underestimate passenger trips (boardings) in the RTD system.

### C. Market Opinion Research Survey Staff

Dr. Barbara Everitt Bryant, Senior Vice President and Study Director

Lynn A. Borowski, On-Site Field Project Director  
Bridget K. Tuohey, On-Site Field Project Director

#### Data Management:

Dr. James Leiman  
Jean Cannon  
Bryan Renaud

Luisa DeLellis, Data Entry  
Tom Lyons, Data Processing  
Virginia Bakich, Coding

Chapter 1

SAMPLING

The sample was drawn by the Southern California Rapid Transit District and provided to Market Opinion Research (MOR) as three samples of bus "half runs," each consisting of 1-6 trips. The three separate samples were for:

- Weekday: 200 half runs plus a few substitute half runs
- Saturday: 100 half runs plus a few substitute half runs
- Sunday: 100 half runs plus a few substitute half runs.

A run is all the trips a bus (vehicle) makes in a day. A "half run" is half of those trips. The "half runs" to serve as sampling point clusters of trips for the survey were randomly chosen as first half or last half of each run.

For each "half run" in the three samples, RTD provided Line Number, Run Number, starting location, direction, starting time, ending time, and density (heavy, medium, light average boardings per hour).

Each of the three samples, for weekday, Saturday, and Sunday, were divided into four strata. Three of these strata were Local trips by three levels of service. The fourth stratum was all Express trips. The sampling frame is shown in the following table.

From the samples, interviewing was completed on 396 "half runs." Of these 201 were weekday, 96 Saturday and 99 Sunday.

TABLE 1.1  
SAMPLING FRAME FOR 1986 ON-BOARD SURVEY

Strata	Surveyed Number of Half Run Sampling Point Clusters	Number of Trips 6 a.m. - 8 p.m.		
		Sample Trips	Population of Trips	
			Per Week	Per Day
Weekday/Local (1)	51	188	39,685	(7,937/day)
Weekday/Local (2)	52	204	17,160	(3,432/day)
Weekday/Local (3)	51	239	6,495	(1,299/day)
Weekday/Express (4)	47	120	11,895	(2,379/day)
<b>TOTAL WEEKDAY</b>	<b>(201)</b>	<b>(751)</b>	<b>(75,235)</b>	--
Saturday/Local (1)	28	105	3,599	--
Saturday/Local (2)	27	124	3,706	--
Saturday/Local (3)	21	100	1,853	--
Saturday/Express (4)	20	80	1,022	--
<b>TOTAL SATURDAY</b>	<b>(96)</b>	<b>(409)</b>	<b>(10,180)</b>	--
Sunday/Local (1)	23	64	3,728	--
Sunday/Local (2)	26	96	2,276	--
Sunday/Local (3)	24	144	1,026	--
Sunday/Express (4)	26	78	855	--
<b>TOTAL SUNDAY</b>	<b>(99)</b>	<b>(382)</b>	<b>(7,885)</b>	--
<b>TOTAL</b>	<b>396</b>	<b>1,542</b>	<b>93,300</b>	

Chapter 2  
QUESTIONNAIRE

The questionnaire was drafted by RTD and formatted by Market Opinion Research to optimize legibility and ease of response, keep the size small enough to be conveniently handed out and answered while riding on a bus, and provide paper heavy enough so that respondents could write while sitting or standing.

The questionnaire was printed on 12 x 11-inch light card stock, folded to 6 x 11-inches. The front and the back contained English and Spanish versions. The inside contained a Business Reply Mail permit addressed for return to RTD and contained a request to fill out and mail the questionnaire back. The questionnaire could be refolded inside out to form the mailback.

The questionnaire is shown in the Questionnaire Appendix.

Two hundred thousand (200,000) questionnaires were printed, as required by the Request for Proposal from RTD. Each was sequentially numbered on the English version side from 000001-200000. The numbers were used for control of interviewer assignments, for identifying the numbers of completed, refused, missing (i.e. carried off the bus) and not-handed-out questionnaires. The numbers were used later for matching questionnaires returned by mail to the correct sampling point "half run" for recording response rates.

Interviewers carried 250 questionnaires aboard light density (less than average 50 boardings per hour); 500 aboard medium density (50-99 average boardings per hour) and 750 aboard heavy density (100+ average boardings per hour) "half runs."

## Market Opinion Research

No sampling point cluster "half run" ran short of questionnaires.

Chapter 3  
INTERVIEWING

A. Interviewer Training

All interviewers attended briefing and training sessions which lasted 2-3 hours prior to survey start. They were then given initial assignments of two "half runs," after which they each attended debriefing sessions lasting 1-2 hours. At the debriefing sessions interviewing problems were reviewed, solutions shared and further instructions given.

Six initial briefings were conducted, four for interviewers who could work any days of the week and two for those who could work only weekends. Each of the six groups of interviewers who attended initial briefings attended one of six debriefing sessions. Additionally, several rebriefing sessions were held for interviewers having problems with assignments.

All briefing, debriefing and rebriefing sessions were conducted by the two on-site Market Opinion Research Field Project Directors. Field Supervisors from two sub-contract interviewer services were present at all of these sessions.

For Spanish-speaking interviewers all briefing, debriefing and rebriefing sessions were repeated twice, once in English and then in Spanish. Approximately 30% of interviewers were Spanish-speaking.

Initial briefings were held April 21-23 and debriefings April 24-28, 1986.

## Market Opinion Research

### B. Interviewer Instructions and Activities

The interviewers were provided written instructions, an example tabulation sheet, and given an oral briefing at each initial briefing session. These were reviewed again at debriefing sessions. The written instructions and example tabulation sheet are shown as Appendix A: Interviewer Instructions.

Interviewers were instructed to do the following activities:

- Be at the start point of each assigned bus "half run" and parked 5-10 minutes prior to start time.
  
- Introduce themselves to driver using the letter on RTD stationery which follows, then set their materials on the seat immediately behind the bus driver and stand in front of this seat to address boarding passengers.



Dear Operator:

The person presenting this letter is employed by an RTD Consultant (Market Opinion Research), which has been hired to conduct an on-board ridership survey.

Please allow this person to board without payment and carry out his/her assignment. This assignment consists of distributing and collecting questionnaire forms to all boarding passengers on your route today for a specified number of trips.

Your cooperation and courtesy to this surveyor are greatly appreciated. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. S. Korach".

Robert S. Korach  
Assistant General Manager  
for Operations



## Market Opinion Research

- Put a canvas bag and sign telling respondents to "Return questionnaires and pencils here" at the rear exit to the bus.
- Count all boarding passengers using the tabulation sheet which follows.
- Mark whether the boarding passenger was a male or female age 12 or over (based on interviewer judgment of age), or whether the boarding passenger was a child under 12 or a person who because of blindness or other obvious disability (such as mental retardation) would be ineligible to fill out a questionnaire.
- Tabulate all boarding passengers by ethnicity/race, making judgments on a visual basis.
- Hand eligible respondents (males and females 12 and over) questionnaires and ask them to respond.
- Hand the respondent a small pencil to use.
- Collect questionnaires from passengers disembarking at the front of the bus.
- Collect questionnaires left in the bus by passengers.
- Empty the questionnaire-return bag at the rear exit.

Interviewers were told that the top priority was to get an accurate count of passengers boarding the bus. The second priority was to get a questionnaire in the hands of each eligible passenger.

After they completed each "half run" interviewers were required to make the following tabulations.

- Sum the number of eligible male riders.

## Market Opinion Research

- Sum the number of eligible female riders.
- Sum the number of children under 12.
- Sum the number of handicapped.
- Sum the number of whites.
- Sum the number of blacks
- Sum the number of Hispanics
- Sum the number of Orientals
- Sum the number of Others--other races or unidentifiable.
- Put questionnaires back in number sequence.
- Record the number of Completed questionnaires.
- Record the number of Refusals. Persons were counted as Refusals if he/she either refused to accept a questionnaire (the questionnaire which would have been handed to him/her was immediately marked as a refusal) or if he/she left the questionnaire on the bus blank.
- Record the number of Incomplete questionnaires. These were questionnaires left on the bus or in the collection bag which had been partially filled out but had too much missing information to be usable.
- Record the number of Missing questionnaires. These were questionnaires missing from the number sequence as they had been carried off the bus by the passenger.
- Record the number of questionnaires assigned to the run which had not been handed out (these were the last numbers in the sequentially assigned questionnaires).
- Record day and date of interview.

## Market Opinion Research

- Record information later to be used for interviewer payment.



DATE COMPLETED \_\_\_\_\_ M TU W TH F SA SU

TOTAL # OF HOURS ON BUS \_\_\_\_\_

TOTAL # OF HOURS TRAVEL \_\_\_\_\_  
(TO AND FROM BUS)

TOTAL # OF MILES \_\_\_\_\_

I CERTIFY THAT THE FOREGOING INFORMATION IS CORRECT.

\_\_\_\_\_  
INTERVIEWER'S SIGNATURE

and edited by \_\_\_\_\_

## Market Opinion Research

### C. Interviewers

Fifty-five interviewers were briefed and trained of whom 2-3 dropped out of the project and 2 were dismissed. A total of 50 interviewers performed the actual interviews and work of those dismissed was replaced.

Interviewers were professionals who work regularly for two subcontract field interviewing services: Davis Market Research of Calabassas, CA, a woman-owned business, and Rainbow Market Research of Inglewood, CA, a minority woman-owned business.

Each of the subcontract field services had several field supervisors assigned to the project who assigned and checked in work of their interviewers, made edit checks and received assignments and reported results to the Market Opinion Research Los Angeles Field Office.

### D. Computer Database Record Control

A database management program was set up on an IBM Personal Computer for control and monitoring of the project. A separate Record was set up for each bus "half run" sampling point cluster of trips. The Record contained statistics on the "half run" provided by RTD with the sample (line number; run number; starting and ending time; starting point; direction; weekday, Saturday or Sunday; sampling strata; density). Data input to the Record by Market Opinion Research prior to surveying included the Questionnaire Numbers to be used on the run (by beginning

## Market Opinion Research

and ending number); Interviewer Number and assignment information. Additionally, the database was set up with the variables for recording all "half run" results.

When interviewer "half run" questionnaires and tabulation sheets were returned to the MOR Los Angeles Field Office, all summary tabulations on the sheet were entered into the database Record for each "half run." MOR Field Project Directors and editors rechecked each Complete and Incomplete questionnaire for usability.

When questionnaires were returned by mail, they were identified according to questionnaire number and an adjustment made in the Record for the appropriate bus "half run" to increase the number of Completes by one for each questionnaire returned by mail and to reduce the number of Missing by one for the "half run" on which the mailed questionnaire had been handed out.

Appendix B: Half Run Record Control Reports is the final printout of the database management file Records for each of the 396 completed sample "half runs." Statistics summed from this database management file provide the total counts and completion percentages presented in Chapter Four.

At all times throughout the fielding of this survey it was possible to call up the Record for a "half run" sampling point cluster and know the assignment status and results for that "half run."

## Market Opinion Research

### E. Interview Dates

Interviewing was conducted between April 22 and June 9, 1986 with virtually all weekday interviewing completed by May 23, 1986. Because half of "half runs" to be surveyed fell on Saturdays and Sundays, it was necessary to utilize the weekends of June 1-2 and 8-9 to complete interviewing on these.



Chapter 4

RESPONSE RATE, EXPANSION PROJECTIONS,  
GEOCODING AND DATA PROCESSING

A. Counted Passengers, Characteristics and Response Rate

The survey was completed on a total of 396 "half runs" which included 1,542 trips.

The count of eligible respondents was 37,227 males (48.1%) and 40,165 females (51.9%), a total of 77,392.

Additionally 7,203 children under 12 and 1,222 persons blind or otherwise unable to fill out a questionnaire because of a handicap were counted on the 1,542 surveyed trips.

TABLE 4.1

ON-BOARD SURVEY PASSENGER COUNTS FOR  
396 BUS HALF-RUNS (1,542 TRIPS)

Boarding Passenger Count	
Males, 12 years and over	37,227
Females, 12 years and over	40,165
<b>TOTAL ELIGIBLE FOR QUESTIONNAIRE</b>	<b>77,392</b>
Blind, other handicap which prevents response	1,222
Children under 12	7,203
<b>TOTAL RIDERS</b>	<b>85,367</b>

**Market Opinion Research**

Ethnic proportions of all counted passengers were: 19.5% white; 50.4% Hispanic; 20.8% black; 7.9% Oriental and 1.9% other ethnic groups or ethnicity could not be determined.

**TABLE 4.2**  
**ON-BOARD SURVEY COUNTED PASSENGER CHARACTERISTICS FOR 396 BUS HALF-RUNS (1,542 TRIPS)**

<b>Sex</b>	
Males, 12 years and over	
As % of all passengers	43.6
As % of eligible respondents	(48.1)
Females, 12 years and over	
As % of all passengers	47.0
As % of eligible respondents	(51.9)
Blind, other handicap which prevents response	1.4
Children under 12	8.4
	100.0
<b>Ethnicity (scored by observation)</b>	
White	19.5
Hispanic	50.4
Black	20.8
Oriental	7.9
Other or not identifiable	1.4
	100.0

## Market Opinion Research

A total of 24,145 usable questionnaires were completed for a response rate of 31.2% of the boarding passengers age 12 and over eligible to receive the survey questionnaire. As the Half Run Record Control Reports in Appendix B show, on some heavy density runs not all eligible respondents received a questionnaire. Of the 77,392 boarding passengers counted, questionnaires were handed out to 67,150. The response rate for those actually handed a questionnaire is 36.0%.

**TABLE 4.3**  
**ON-BOARD SURVEY RESULTS FOR 396 BUS HALF RUNS (1,542 TRIPS)**

Total eligible respondents	77,392
Total questionnaires handed out	67,150
Completed interviews	24,145
Incompletes	3,460
Refusals	20,406
Missing (carried off bus)	19,139
Completed interviews as % of handouts	36.0
Incompletes as % of handouts	5.1
Refusals as % of handouts	30.4
Missing as % of handouts	28.5
	100.0
Completed interviews as % of eligible respondents	31.2%

**B. Expansion to Project to Weekly Boarding Count**

Two weights were applied to each completed interview to project the sampled boarding passengers who completed interviews to the population of boardings by persons age 12 and over during a week between 6 a.m. and 8 p.m. in the period of the survey (late April-early June 1986). The actual count of passenger trips (boardings) by those 12 and over was the sum of the counted eligible males + eligible females + blind/handicapped (37,227+40,165+1,222=78,614). This was the base from which expansions were made.

1. Response Weight by Sex

Males who completed questionnaires were projected to all males counted on each half run by applying a weight of:

$$\frac{\text{Eligible males on "half run"}}{\text{Males who completed questionnaire}}$$

A similar weight was applied to females on each half run:

$$\frac{\text{Eligible females on "half run"}}{\text{Females who completed questionnaire}}$$

In the completed interviews, 41.7% recorded themselves as male, 50.6% as female and 7.8% did not answer the sex question. This compares to 48.1% male and 51.9% female in the interviewer-counted passenger boardings. Respondents for whom sex was not known were given an average response rate equal to:

$$\frac{\text{Male + Female response weights on "half run"}}{2}$$

## 2. Trip Weight

Each respondent was identified by the sample (weekday, Saturday or Sunday) and the sample strata (Local1, Local2, Local3, Express) in which his/her trip was taken. For each of the 12 categories (3 samples x 4 strata) a weight was applied to the respondent record which expanded that trip to all RTD trips made during a week in that sample and strata. This weight was:

Trips in week in sample and strata

Surveyed number of trips in sample & strata

These two weights expanded the 78,614 respondents who completed questionnaires to a weekly number of passenger trips (boardings) by those 12 and over to:

- Total 6,645,600 passenger trips/week
- Weekday 5,397,600 passenger trips/week; 1,079,500/day
- Saturday 720,900 passenger trips/week
- Sunday 527,100 passenger trips/week

When the 7,203 counted boarding children are expanded, using an average of the male/female Response Weight for the "half run" and the Trip Weight for the sample and strata in which the "half run" falls, the passenger trips/week projections become:

- Total 7,185,800 passenger trips/week (adults and children)
- Weekday 5,774,800 passenger trips/week (adult and children); 1,155,000/day
- Saturday 786,900 passenger trips/week (adults and children)
- Sunday 624,100 passenger trips/week

C. Characteristics of Riders age 12 and Over on Projected Weekly Passenger Trips

After expansion of those who filled out questionnaires to the number of passenger trips per week, the characteristics of riders are as shown in Table 4-4. Other characteristics of those making these passenger trips are shown in the crosstabulation in Volume II.

TABLE 4.4  
CHARACTERISTICS OF PASSENGERS AGE 12 AND OVER BASED ON  
EXPANSION OF RESPONDENTS TO PASSENGER TRIPS

<b>Sex</b>	
Males, 12 years and over	44
Females, 12 years and over	48
No response/unknown	8
	100%
<b>Ethnicity (self reported)</b>	
White	20
Hispanic	41
Black	22
Asian/Pacific Islander	7
American Indian/Alcution	2
Other	2
No response/unknown	6
	100%

## Market Opinion Research

### D. Geocoding of Origins and Destinations

Two questions in the survey asked respondents to give their origin and destination addresses. Approximately 20,000 of the 24,145 completed questionnaires had usable looking addresses written in. These were keypunched using post office standards for punching addresses. These were then sent on tape to RTD to run through their geocoding program. On first running only one-quarter could be geocoded. Those which did not code were reviewed manually and the following changes made: (1) intersections which had not coded when written with an "&" between were changed to a "/". (2) Apartment numbers were deleted as these appeared to be rejected by the geocode program. (3) Addresses which had been rejected when written in words by post office standards as One Hundred and Fifteenth Street were resubmitted as 115th St. (4) Actual addresses were substituted for landmarks where these could be found (e.g. shopping mall addresses). (6) Obvious misspellings were corrected. (7) Missing cities were filled in.

A correction tape was submitted to RTD. This improved the geocoding proportion to slightly under 30%.

The geocoding program is organized on the basis of intersections and is very sensitive to any variations in actual addresses. It also appears to be inconsistent in accepting "&" or "/" for intersection dividers. Many landmarks are not coded (e.g. high schools and shopping centers). Survey respondents answering a self administered questionnaire in haste do not carefully write out addresses, often give place names such as the name of a school or shopping mall or simply "downtown," are not careful about putting in directions such as "N," "E," "S" and "W," and are careless with both handwriting and spelling.

## Market Opinion Research

### E. Editing, Coding and Data Processing

Questionnaires were checked by interviewers and counted as Complete, Incomplete, Refused or Missing. Field supervisors performed another check of questionnaires before turning them in to MOR's Los Angeles Field Office. At this office, each Complete and Incomplete interview was reviewed for completion before being entered into the database. Completed questionnaires were then shipped to MOR's Coding Department and Incompletes later given another review before being rejected.

In the Coding Department, questions answered in the respondent's own words with an "other" response for a precoded question were categorized and some additional codes assigned.

Questionnaires were entered to tape and marginal frequencies printed out by computer. The described Response Weight by Sex and Trip Weight, plus Day of Week, Strata and Density variables for the appropriate half run were then merged onto each respondent's record from the data contained in the Personal Computer management control database which had been maintained in the Los Angeles field office.

Crosstabulations were made, projected to weekly passenger trips (in 000's), for Total Passenger Trips (boardings) and 42 subgroups of them. These crosstabulations are contained in Volume II.



RECOMMENDATIONS FOR FUTURE ON-BOARD SURVEYS

A. Survey Problems

Overall the 1986 On-Board Survey was successful. The goal of surveying 400 "half runs" was almost completely achieved with 396. The completion rate of 31% of eligible respondents is unusually high for an on-board survey.

Despite these favorable results, there were some problems which it is wise to review before the next on-board survey.

More than 400 "half runs" were attempted. In some cases interviewers failed to meet schedules and these "half runs" were reassigned and surveyed on subsequent days. In a few cases, the interviewers reported on time to the assigned location but the location had been incorrectly identified on the sample (e.g. the right intersection in the wrong city). A number of times buses carried a different line number label than the one which had been given interviewers in the sample (for example a few buses have one number in one direction and another in the opposite or change line numbers after what had been given as the assigned starting point). Although RTD had notified drivers of the survey, some few refused to permit interviewers aboard. This happened on two runs on the final weekend of the survey.

The match between respondent-supplied origin and destination addresses and the RTD geocoding program was only about 30%. A higher match is desirable.

## Market Opinion Research

The printing, numbering, physical handling, sorting, counting, and record keeping for 200,000 questionnaires was both cost and labor consuming. Only 75,000 were actually used.

### B. Recommendations

A relatively few changes could make the next on-board survey run more smoothly and save some funding. After review of the 1986 survey, these are the changes Market Opinion Research recommends.

- Provide fuller detail with the sample about all possible line number designations a bus may carry and still be the one intended as the sampling point.
- Provide a boarding point corner as the start location. The "direction" provided with the sample was not always the one in which the bus was actually moving at the starting point. Double check the accuracy of starting point locations.
- Have an RTD representative knowledgeable about bus operations at all interviewer briefing sessions. Sessions at which such a representative was present and could provide instructions were more successful than those without such representation.
- Modify the questionnaire to ask for origins and destinations by the closest intersection rather than actual addresses. It appears that the geocoding program accepts intersections more readily than addresses.
- Provide written directions for punching standards for items to be geocoded. These should include directions on which names should be handled as numerics and which as alphas; instructions not to punch an apartment number, etc.
- Check the consistency of the geocoding program. For example it sometimes accepts "&" for intersections and other times rejects these, and similarly for "/." It rejects many addresses which appear to have been clearly written by respondents and punched correctly.

## Market Opinion Research

- Add major downtown intersections to the geocoding recognition. The program now rejects Broadway/5th, Broadway/Olympic, Spring/7th, etc. As downtown is a major destination area, the program should be set up to accept all possible combinations of downtown intersections.
- Add high schools, colleges and more shopping malls to the locations in the geocode program. Cal State University, Los Angeles, is not accepted by either its name or its street address as listed in Thomas Guide. No high schools geocoded successfully, but students give these by name rather than address as destinations.
- If sample size remains the same, consider reducing the required number of questionnaires to be printed. 125,000 rather than 250,000 would have allowed adequate margin and reduced a great deal of paper handling.

In all large survey projects there can never be too much interviewer supervision or too much communication between supervisors and interviewers; between client and contractor. Market Opinion Research recognizes that interviewers missed buses for personal or confusion reasons as well as for valid reasons. Improvements in supervision and communication must always be a priority for a large scale, fast turnaround project.

MARKET OPINION RESEARCH



**SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT**

**1986 ON-BOARD SURVEY  
VOLUME II  
CROSS TABULATION DATA**

Prepared for:

**Southern California Rapid Transit District**

Not to be released without joint permission of  
Market Opinion Research  
and  
Southern California Rapid Transit District

G86087  
June 1986

Question 1 How did you get to this bus?

BREAK ONE	TOTAL	TOTAL	TOTAL	TOTAL	ETHNIC			TRIP PURPOSES					VEHICLE		
	SAMPLE	WEEK DAY	SATUR DAY	SUNDAY	WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	PHYSICAL	SHOPPING	RECREATION	AVAILABLE	NO
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Walked	4462 67.	3595 67.	502 70.	365 69.	861 66.	1879 68.	969 67.	328 68.	1966 66.	808 68.	257 63.	581 72.	307 67.	849 65.	3208 67.
Transferred from RID line	1637 25.	1354 25.	159 22.	124 24.	301 23.	680 25.	382 26.	116 24.	775 26.	297 24.	116 29.	178 22.	111 24.	283 22.	1229 26.
Was driven	201 3.	169 3.	18 2.	14 3.	62 5.	73 3.	39 3.	14 3.	111 4.	32 3.	7 2.	24 3.	21 5.	76 6.	117 2.
Transferred from other bus system	120 2.	102 2.	11 2.	7 1.	30 2.	38 1.	29 2.	9 2.	53 2.	23 2.	10 2.	10 1.	9 2.	24 2.	86 2.
Drove	65 1.	54 1.	8 1.	2 0.	21 2.	27 1.	4 0.	4 1.	38 1.	10 1.	5 1.	3 0.	5 1.	35 3.	21 0.
Already at origin	3 *	3 *				2 *				2 *				1 *	2 *
Rode bike	1 *	1 *					1 *		1 *						1 *
Other	30 *	23 *	4 1.	3 1.	8 1.	11 *	5 *	2 *	11 *	3 *	1 *	4 *	5 1.	5 *	25 1.
No response	125 2.	95 2.	19 3.	11 2.	20 2.	48 2.	18 1.	9 2.	38 1.	17 1.	11 3.	10 1.	4 1.	23 2.	73 2.

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 1 How did you get to this bus?

BREAK TWO	TOTAL SAMPLE	FARE TYPE						INCOME								
		TRANS FER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND. PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	759 100.	569 100.	399 100.	448 100.	371 100.	331 100.	
Walked	4462 67.	325 38.	1844 77.	1150 65.	698 69.	332 67.	216 64.	902 69.	754 68.	487 64.	388 68.	274 69.	287 68.	210 65.	203 61.	
Transferred from RTD line	1637 25.	454 53.	338 14.	506 28.	235 23.	129 26.	78 23.	327 25.	265 24.	226 30.	130 23.	88 22.	124 28.	72 22.	87 26.	
Was driven	201 3.	13 2.	100 4.	45 3.	30 3.	9 2.	17 5.	26 2.	34 3.	12 2.	19 3.	20 5.	14 3.	15 5.	20 6.	
Transferred from other bus system	120 2.	47 5.	32 1.	20 1.	17 2.	6 1.	10 3.	20 2.	16 1.	16 2.	9 2.	8 2.	10 2.	11 3.	8 2.	
Drove	65 1.	4 *	27 1.	16 1.	10 1.	3 1.	6 2.	9 1.	10 1.	3 *	6 1.	3 1.	8 2.	7 2.	5 2.	
Already at origin	3 *		1 *		2 *										1 *	
Rode bike	1 *		1 *								1 *					
Other	30 *	3 *	9 *	7 *	5 *	2 *	4 1.	7 1.	2 *	4 1.	2 *	2 1.	2 *	1 *	4 1.	
No response	125 2.	10 1.	41 2.	37 2.	11 1.	17 3.	7 2.	24 2.	19 2.	10 1.	15 3.	3 1.	4 1.	4 1.	4 1.	

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

Question 1 How did you get to this bus?

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX FRES	LOCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	597 100.
Walked	4462 67.	499 71.	1125 69.	1085 67.	530 65.	265 62.	196 64.	240 66.	1987 68.	2114 66.	420 61.	4043 66.
Transferred from RTD line	1637 25.	135 19.	396 24.	379 24.	222 27.	125 29.	88 29.	95 26.	701 24.	519 26.	177 26.	1461 25.
Was driven	201 3.	33 5.	40 2.	59 4.	28 3.	14 3.	6 2.	6 2.	77 3.	111 3.	42 6.	159 3.
Transferred from other bus system	120 2.	13 2.	30 2.	30 2.	14 2.	7 2.	5 2.	7 2.	57 2.	57 2.	14 2.	106 2.
Drove	65 1.	2 *	14 1.	18 1.	12 1.	3 1.	4 1.	1 *	20 1.	28 1.	20 3.	45 1.
Already at origin	3 *	2 *	1 *							3 *		3 *
Rode bike	1 *		1 *							1 *		1 *
Other	30 *	4 1.	8 *	4 *	3 *	2 *	3 1.	1 *	15 1.	13 *	7 1.	23 *
No response	125 2.	10 1.	25 2.	21 1.	9 1.	11 3.	4 1.	13 4.	38 1.	60 2.	9 1.	116 2.

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 1 How many blocks did you walk to get to this bus/How much was your parking fee?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP			PURPOSE			VEHICLE	
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MCC CAL	SHOP ING	RECREA TION	AVAILA BLE	TYPE	
Total	4527 100.	3650 100.	510 100.	367 100.	882 100.	1906 100.	973 100.	332 100.	2000 100.	819 100.	267 100.	584 100.	313 100.	884 100.	3229 100.	
Number of blocks walked	4462 100.	3595 100.	502 100.	365 100.	861 100.	1877 100.	969 100.	328 100.	1966 100.	808 100.	257 100.	581 100.	307 100.	848 100.	3208 100.	
Walked 0 blocks	1049 24.	831 23.	122 24.	96 26.	159 18.	404 22.	289 30.	71 22.	445 23.	163 20.	74 29.	149 25.	75 24.	209 25.	713 22.	
Walked 1-3 blocks	2668 60.	2170 60.	290 58.	208 57.	567 66.	1118 59.	529 55.	220 67.	1186 60.	501 62.	147 57.	354 61.	180 60.	509 60.	1937 60.	
Walked 4-7 blocks	638 14.	507 14.	77 15.	54 15.	109 13.	318 17.	128 13.	30 9.	295 15.	123 15.	31 12.	71 12.	42 14.	113 13.	477 15.	
Walked 8-10 blocks	65 1.	53 1.	8 2.	3 1.	19 2.	27 1.	12 1.	2 1.	28 1.	14 2.	2 1.	4 1.	4 1.	11 1.	50 2.	
Walked more than 10 blocks	39 1.	31 1.	4 1.	4 1.	8 1.	12 1.	9 1.	5 2.	11 1.	8 1.	3 1.	4 1.	3 1.	6 1.	28 1.	
No response																
Drove/paid parking fee	65 100.	54 100.	8 100.	2 100.	21 100.	27 100.	4 100.	4 100.	34 100.	10 100.	5 100.	3 100.	5 100.	36 100.	21 100.	
Drove paid no parking	53 82.	46 85.	6 75.	1 50.	19 90.	20 74.	4 100.	3 75.	28 82.	8 80.	5 100.	3 100.	5 100.	30 83.	18 78.	
Drove paid less than \$1	1 2.		1 13.			1 4.									1 5.	
Drove paid \$1-1.99	3 5.	2 4.			1 5.	1 4.			3 9.					2 6.	1 5.	
Drove paid \$2-2.99	1 2.	1 2.			1 5.				1 3.					1 3.		
Drove paid \$3-4.99	3 5.	2 4.	1 13.			2 7.		1 25.	2 6.					1 3.	2 10.	
Drove paid \$5-7.49	2 3.	2 4.				2 7.				1 10.				1 3.	1 5.	
Drove paid \$7.50-9.99																
Drove paid \$10 or more	1 2.	1 2.								1 10.				1 3.		
No response																

FREQUENCIES IN 1000's



Question 1 How many blocks did you walk to get to this bus/How much was your parking fee?

BREAK TWO	TOTAL	FARE			TYPE	INCOME									
	SAMPLE	TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+
Total	4527	329	1871	1166	708	335	223	911	763	490	394	278	295	217	208
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Number of blocks walked	4462	325	1844	1150	690	332	216	902	754	487	388	274	287	210	203
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Walked 0 blocks	1049	93	431	252	141	79	76	248	159	95	71	61	53	47	39
	24.	29.	23.	22.	20.	24.	35.	27.	21.	20.	18.	22.	18.	22.	19.
Walked 1-3 blocks	2668	180	1073	711	429	218	116	502	464	316	253	170	182	133	124
	60.	55.	58.	62.	61.	66.	54.	56.	62.	65.	65.	62.	63.	63.	61.
Walked 4-7 blocks	638	42	290	163	111	30	19	132	116	65	55	39	45	26	31
	14.	13.	16.	14.	16.	9.	9.	15.	15.	13.	14.	14.	16.	12.	15.
Walked 8-10 blocks	65	5	33	15	9	3	4	13	9	8	5	3	3	2	4
	1.	2.	2.	1.	1.	1.	2.	1.	1.	2.	1.	1.	1.	1.	2.
Walked more than 10 blocks	39	4	17	7	8	2	2	7	6	2	2	2	4	1	2
	1.	1.	1.	1.	1.	1.	1.	1.	1.	2.	1.	1.	1.	2.	2.
No response															
Drove/paid parking fee	65	4	27	16	10	3	6	9	10	3	6	3	8	7	8
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Drove paid no parking	53	1	22	14	8	3	6	7	7	2	5	2	8	7	8
	82.	25.	81.	84.	90.	100.	100.	78.	70.	67.	83.	67.	100.	100.	100.
Drove paid less than \$1	1		1												
	2.		4.												
Drove paid \$1-1.99	3	1	2						1						
	5.	25.	7.						10.						
Drove paid \$2-2.99	1			1											
	2.			6.								17.			
Drove paid \$3-4.99	3	1	1	1											
	5.	25.	4.	6.				11.							14.
Drove paid \$5-7.49	2	1	1		1										
	3.	25.	4.		10.				10.						
Drove paid \$7.50-9.99															
Drove paid \$10 or more	1														
	2.														
No response															

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 1 How many blocks did you walk to get to this bus/How much was your parking fee?

BREAK THREE	TOTAL SAMPLE	AGE								SEX			
		18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	FX PRESS	LCCAL	
Total	4527 100.	501 100.	1140 100.	1063 100.	541 100.	268 100.	199 100.	240 100.	2015 100.	2142 100.	439 100.	4089 100.	
Number of blocks walked	4462 100.	499 100.	1125 100.	1045 100.	530 100.	265 100.	196 100.	240 100.	1987 100.	2114 100.	420 100.	4043 100.	
Walked 0 blocks	1049 24.	99 20.	236 21.	240 23.	127 24.	58 22.	46 23.	52 22.	443 22.	491 23.	88 21.	962 24.	
Walked 1-3 blocks	2668 60.	309 62.	708 63.	614 59.	315 59.	166 63.	118 60.	165 69.	1158 58.	1321 62.	242 58.	2426 60.	
Walked 4-7 blocks	638 14.	76 15.	151 13.	171 16.	76 14.	37 14.	27 14.	20 8.	327 16.	267 13.	75 18.	563 14.	
Walked 8-10 blocks	65 1.	12 2.	18 2.	12 1.	7 1.	1 *	3 2.	2 1.	35 2.	21 1.	10 2.	55 1.	
Walked more than 10 blocks	39 1.	3 1.	12 1.	5 *	5 1.	2 1.	2 1.	1 *	24 1.	12 1.	5 1.	35 1.	
No response													
Drove/paid parking fee	65 100.	2 100.	14 100.	18 100.	12 100.	3 100.	4 100.	1 100.	28 100.	28 100.	20 100.	45 100.	
Drove paid no parking	53 82.	2 100.	11 79.	15 83.	9 75.	3 100.	3 75.	1 100.	21 75.	25 89.	18 90.	35 78.	
Drove paid less than \$1	1 2.									1 4.		1 2.	
Drove paid \$1-1.99	3 5.		1 7.		1 8.				1 4.	1 4.		3 7.	
Drove paid \$2-2.99	1 2.			1 6.					1 4.		1 5.		
Drove paid \$3-4.99	3 5.			1 6.			1 25.		2 7.	1 4.		3 7.	
Drove paid \$5-7.49	2 3.		1 7.	1 6.					2 7.			2 4.	
Drove paid \$7.50-9.99													
Drove paid \$10 or more	1 2.											1 2.	
No response													

FREQUENCIES IN 1000's  
(\*= PERCENT LESS THAN .5)

Question 1 What bus system did you transfer from?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC			TRIP PURPOSE			VEHICLE AVAILABLE				
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MECI CAL	SHOP ING	RECREA TION	YES	NO
Total	120 100.	102 100.	11 100.	7 100.	30 100.	38 100.	29 100.	9 100.	53 100.	23 100.	10 100.	10 100.	9 100.	24 100.	86 100.
Bus system transferred from															
Culver	3 3.	3 3.				1 3.	2 7.		2 4.	1 4.					3 3.
Long Beach	3 3.	3 3.			1 3.		1 3.		1 2.					1 4.	2 2.
Santa Monica	2 2.	2 2.			2 7.				2 4.	1 4.					2 2.
MonteBello	1 1.								1 2.						
Torrance	1 1.	1 1.				1 3.						1 10.		1 4.	
Gardena															
Norwalk															
No response	110 92.	92 90.	10 91.	7 100.	26 87.	35 92.	26 90.	9 100.	48 91.	21 91.	10 100.	9 90.	8 89.	22 92.	78 91.

FREQUENCIES IN 1000's

Question 1 What bus system did you transfer from?

	TOTAL SAMPLE	FARE TYPE						INCOME							
		TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+
BREAK TWO															
Total	120 100.	47 100.	32 100.	20 100.	17 100.	6 100.	10 100.	20 100.	16 100.	16 100.	9 100.	9 100.	10 100.	11 100.	6 100.
Bus system transferred from															
Culver	3 3.		2 6.		1 6.			1 5.							1 13.
Long Beach	3 3.	1 2.	1 3.	1 5.											1 13.
Santa Monica	2 2.	2 4.											1 10.	1 9.	
MonteBello	1 1.														
Torrance	1 1.		1 3.			1 17.			1 6.						
Gardena															
Norwalk															
No response	110 92.	43 91.	28 88.	20 100.	15 88.	5 83.	10 100.	19 95.	14 88.	16 100.	9 100.	8 100.	9 90.	9 82.	6 75.

FREQUENCIES IN 1000's

Question 1 What bus system did you transfer from?

TOTAL |-----AGE-----|

SAMPLE LT 18 18-24 25-34 35-44 45-54 55-64 65+

120 13 30 30 14 7 5 7  
 100. 100. 100. 100. 100. 100. 100. 100.

|---SEX---|

MALE FEMALE EX  
 PRESS LOCAL  
 57 57 14 106  
 100. 100. 100. 100.

BREAK THREE

Total

Bus system transferred from

Culver

Long Beach

Santa Monica

Montebello

Torrance

Gardena

Norwalk

3 1 1 1  
 3. 8. 3. 7.  
 3 7. 2  
 3. 7. 2  
 1 1  
 1. 14. 1  
 1. 14. 1

2 1 3  
 4. 2. 3.  
 2 1 2  
 4. 2. 7. 2.  
 2 2  
 4. 2.  
 1 1  
 2. 1.

No response

110 12 28 26 13 7 5 6  
 92. 92. 93. 87. 93. 100. 100. 86.

50 54 13 97  
 88. 95. 93. 92.

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 2 From where did you come before you got on this bus?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC			TRIP		PURPOSE			VEHICLE AVAILABLE		
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MFCI CAL	SHCP INC	RECREA TICN	YFS	NC
Total	6646 100.	5398 100.	721 100.	527 100.	1307 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Home	3634 55.	2906 54.	399 55.	329 62.	704 54.	1521 55.	816 56.	274 57.	1521 51.	482 41.	206 51.	379 47.	224 49.	705 54.	2637 55.
Work	1317 20.	1119 21.	141 20.	56 11.	235 18.	640 23.	255 18.	79 16.	1317 44.	29 2.	21 5.	45 6.	27 6.	274 21.	928 14.
School	648 10.	621 12.	20 3.	7 1.	96 7.	237 9.	158 11.	76 16.	65 2.	648 55.	5 1.	22 3.	15 3.	134 11.	462 7.
Shopping	325 5.	214 4.	72 10.	39 7.	102 8.	110 4.	56 4.	23 5.	15 1.	4 *	7 2.	325 40.	10 2.	62 5.	230 3.
Medical	162 2.	147 3.	11 2.	4 1.	32 2.	68 2.	33 2.	7 1.	14 *	3 *	162 40.	4 1.	2 *	24 2.	118 2.
Recreation	126 2.	71 1.	23 3.	32 6.	34 3.	36 1.	35 2.	4 1.	6 *	2 *	3 1.	7 1.	126 27.	25 2.	92 2.
Personal business	91 1.	71 1.	8 1.	12 2.	42 3.	17 1.	21 1.	5 1.	7 *	1 *	1 *	7 1.	7 2.	7 1.	78 2.
Visiting friends/relatives	36 1.	25 *	5 1.	6 1.	9 1.	9 *	12 1.	1 *	3 *	1 *		3 *	36 8.	4 *	31 1.
Another bus/transferred	5 *	4 *	1 *			1 *	3 *	1 *	1 *	1 *		1 *		1 *	4 *
Other	184 3.	132 2.	24 3.	27 5.	37 3.	62 2.	50 3.	8 2.	22 1.	8 1.	1 *	10 1.	11 2.	34 3.	133 3.
No response															

FREQUENCIES IN 1000's  
(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1966)

Question 2 From where did you come before you got on this bus?

BREAK TWO	TOTAL	FARE TYPE						INCOME							
	SAMPLE	TRANS FER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	759 100.	569 100.	398 100.	448 100.	321 100.	331 100.
Home	3634 55.	466 54.	1390 58.	970 54.	458 46.	319 64.	174 51.	743 57.	621 56.	438 58.	300 53.	213 54.	240 54.	177 55.	166 50.
Work	1317 20.	162 19.	505 21.	511 29.	71 7.	56 11.	39 11.	249 19.	211 19.	161 21.	112 23.	92 23.	96 21.	72 22.	60 18.
School	648 10.	65 8.	148 6.	67 4.	357 35.	5 1.	31 9.	102 8.	90 8.	56 7.	50 9.	34 10.	44 10.	34 11.	61 18.
Shopping	325 5.	52 6.	106 4.	67 4.	40 4.	49 10.	24 7.	68 5.	66 6.	31 4.	30 5.	17 4.	26 6.	11 3.	14 4.
Medical	162 2.	28 3.	58 2.	27 2.	15 1.	23 5.	24 7.	44 3.	27 2.	14 2.	11 2.	7 2.	8 2.	7 1.	6 2.
Recreation	126 2.	21 2.	43 2.	30 2.	18 2.	9 2.	12 4.	30 2.	20 2.	14 2.	10 2.	8 2.	11 2.	5 2.	8 2.
Personal business	91 1.	13 2.	34 1.	21 1.	6 1.	10 2.	7 2.	22 2.	13 1.	9 1.	10 2.	5 1.	3 1.	5 2.	6 2.
Visiting friends/relatives	36 1.	8 1.	14 1.	8 *	4 *	1 *	2 1.	3 *	8 1.	4 1.	3 1.	2 1.	4 1.	2 1.	1 *
Another bus/transferred	5 *	2 *			2 *				1 *	2 *	1 *				
Other	184 3.	28 3.	61 3.	49 3.	21 2.	17 3.	20 6.	34 3.	30 3.	19 3.	14 2.	13 3.	13 3.	9 3.	8 2.
No response															

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 2 From where did you come before you got on this bus?

BREAK THREE	TOTAL  -----AGE-----								---SEX----  </th <th rowspan="2">EX PRESS</th> <th rowspan="2">LOCAL</th>		EX PRESS	LOCAL
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE		
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Home	3634 55.	298 43.	917 56.	891 57.	432 53.	229 54.	171 56.	237 65.	1633 56.	1723 54.	382 55.	3253 55.
Work	1317 20.	26 4.	316 19.	397 26.	223 27.	107 25.	66 22.	33 9.	571 20.	644 20.	150 22.	1167 20.
School	648 10.	274 39.	189 12.	55 4.	30 4.	10 2.	2 1.	4 1.	269 9.	336 10.	66 10.	561 10.
Shopping	325 5.	33 5.	68 4.	54 3.	54 7.	23 5.	21 7.	37 10.	115 4.	197 6.	24 3.	301 5.
Medical	162 2.	13 2.	24 1.	38 2.	25 3.	19 4.	12 4.	18 5.	47 2.	101 3.	17 2.	150 2.
Recreation	126 2.	16 2.	27 2.	30 2.	16 2.	4 1.	6 2.	8 2.	83 3.	34 1.	14 2.	112 2.
Personal business	91 1.	5 1.	28 2.	13 1.	9 1.	7 2.	10 3.	8 2.	38 1.	44 1.	10 1.	61 1.
Visiting friends/relatives	36 1.	7 1.	13 1.	6 *	3 *	1 *	1 *	2 1.	17 1.	17 1.	3 *	33 1.
Another bus/transferred	5 *	2 *	1 *	1 *					3 *	2 *		4 *
Other	184 3.	15 2.	40 2.	48 3.	16 2.	12 3.	12 4.	14 4.	89 3.	75 2.	18 3.	165 3.
No response												

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)



SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 4 After you get off this bus, you will...

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC			TRIP PURPOSE			VEHICLE AVAILABLE				
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDICAL	SHOPPING	RECREATION	YES	NO
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1887 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1256 100.	4763 100.
Walk	4336 65.	3504 65.	485 67.	348 66.	905 69.	1810 66.	919 64.	304 63.	1933 65.	801 68.	252 62.	544 67.	303 66.	840 65.	3141 66.
Transfer to RTD line	1707 26.	1415 26.	162 22.	131 25.	292 22.	697 25.	421 28.	130 27.	817 27.	291 25.	118 29.	190 23.	109 24.	308 24.	1261 26.
Transfer to other bus system	149 2.	125 2.	14 2.	10 2.	25 2.	46 2.	45 3.	15 3.	59 2.	27 2.	13 3.	14 2.	11 2.	29 2.	110 2.
Be Driven	74 1.	60 1.	9 1.	5 1.	18 1.	27 1.	11 1.	8 2.	38 1.	12 1.	4 1.	10 1.	15 3.	33 3.	32 1.
Drive	42 1.	30 1.	8 1.	4 1.	10 1.	20 1.	8 *	4 1.	20 1.	5 *	4 1.	4 *	6 1.	22 2.	12 *
Already at destination	27 *	23 *	3 *	1 *	7 1.	7 *	8 1.	3 1.	11 *	12 1.	1 *	5 1.	1 4	10 1.	17 *
Ride bike															
Other	78 1.	65 1.	8 1.	5 1.	22 2.	23 1.	19 1.	6 1.	29 1.	13 1.	3 1.	17 2.	8 2.	16 1.	58 1.
No response	232 3.	176 3.	33 5.	24 5.	24 2.	128 5.	20 1.	12 2.	85 3.	21 2.	12 3.	25 3.	9 2.	38 3.	131 3.

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 4 After you get off this bus, you will...

BREAK TWO	TOTAL SAMPLE	FARE TYPE						INCOME								
		TRANS FER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND. PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.	
Walk	4336 65.	598 70.	1576 66.	1116 63.	661 66.	336 67.	212 62.	877 67.	737 67.	504 66.	363 64.	259 65.	285 64.	208 65.	209 63.	
Transfer to RTD line	1707 26.	183 21.	607 25.	534 30.	256 25.	117 23.	78 23.	322 24.	283 26.	204 27.	161 28.	113 28.	125 28.	78 24.	87 26.	
Transfer to other bus system	149 2.	24 3.	63 3.	23 1.	31 3.	6 1.	12 4.	29 2.	18 2.	15 2.	15 3.	6 2.	10 2.	9 3.	11 3.	
Be driven	74 1.	9 1.	28 1.	14 1.	12 1.	5 1.	13 4.	12 1.	6 1.	6 1.	4 2.	5 1.	5 1.	10 3.	5 2.	
Drive	42 1.	2 *	19 1.	10 1.	4 *	3 1.	6 2.	8 1.	5 *	2 *	2 *	2 1.	2 1.	2 1.	4 1.	
Already at destination	27 *	2 *	4 *	9 1.	8 1.	2 *	2 1.	2 *	4 *	1 *	3 1.	1 *	3 1.	3 1.	4 1.	
Ride bike																
Other	78 1.	9 1.	19 1.	23 1.	14 1.	7 1.	7 2.	14 1.	9 1.	10 1.	8 1.	5 1.	6 1.	6 2.	5 2.	
No response	232 3.	31 4.	78 3.	54 3.	19 2.	22 4.	9 3.	51 4.	39 4.	16 2.	10 2.	7 2.	6 1.	4 1.	6 2.	

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

Question 4 After you get off this bus, you will...

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LOCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	927 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Walk	4336 65.	484 69.	1103 67.	1009 65.	521 64.	265 62.	191 62.	255 70.	1933 67.	2083 65.	425 62.	3911 66.
Transfer to RID line	1707 26.	153 22.	404 25.	419 27.	235 29.	132 31.	84 27.	80 22.	735 25.	851 27.	182 26.	1526 26.
Transfer to other bus system	149 2.	20 3.	43 3.	27 2.	13 2.	7 2.	10 3.	5 1.	65 2.	68 2.	18 3.	131 2.
Be driven	74 1.	11 2.	14 1.	19 1.	8 1.	5 1.	2 1.	3 1.	26 1.	39 1.	16 2.	58 1.
Drive	42 1.	7 *	7 *	9 1.	4 *	3 1.	2 1.	2 1.	19 1.	17 1.	10 1.	32 1.
Already at destination	27 *	6 1.	10 1.	6 *				2 1.	9 *	17 1.	3 *	23 *
Ride bike												
Other	78 1.	8 1.	20 1.	19 1.	12 1.	1 *	6 2.	6 2.	36 1.	39 1.	11 2.	67 1.
No response	232 3.	16 2.	40 2.	47 3.	26 3.	14 3.	9 3.	9 2.	81 3.	92 3.	22 3.	210 4.

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 4 After you get off this bus, how many blocks will you walk/ How much will your parking fee be?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE		RECREA			VEHICLE AVAILABILITY	
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHCL	MEDI CAL	SHCP ING	TICK	YFS	AVAILABIF NC
Total	4378 100.	3534 100.	493 100.	352 100.	915 100.	1830 100.	923 100.	308 100.	1953 100.	806 100.	256 100.	552 100.	309 100.	862 100.	3153 100.
Number of blocks will walk	4336 100.	3504 100.	485 100.	348 100.	905 100.	1810 100.	919 100.	304 100.	1933 100.	801 100.	252 100.	548 100.	303 100.	840 100.	3141 100.
Walk 0 blocks	872 20.	690 20.	108 22.	74 21.	119 13.	371 20.	224 24.	72 24.	363 19.	153 18.	47 19.	129 24.	61 20.	177 21.	603 19.
Walk 1-3 blocks	2754 64.	2257 64.	287 59.	209 60.	629 70.	1117 62.	562 61.	203 67.	1252 65.	514 64.	176 70.	342 62.	167 62.	551 64.	1996 64.
Walk 4-7 blocks	620 14.	485 14.	77 16.	57 16.	129 14.	288 16.	120 13.	27 9.	273 14.	115 14.	27 11.	69 13.	47 16.	98 12.	473 15.
Walk 8-10 blocks	60 1.	47 1.	9 2.	5 1.	18 2.	26 1.	8 1.	1 *	27 1.	12 1.	2 1.	6 1.	6 2.	8 1.	49 2.
Walk more than 10 blocks	28 1.	23 1.	3 1.	2 1.	9 1.	9 *	4 *	1 *	17 1.	6 1.		2 *	2 1.	5 1.	19 1.
No response															
Drive/will pay parking fee	42 100.	30 100.	8 100.	4 100.	10 100.	20 100.	4 100.	4 100.	20 100.	5 100.	4 100.	4 100.	6 100.	22 100.	17 100.
Drive pay no parking	36 86.	25 83.	7 88.	4 100.	9 90.	16 80.	4 100.	3 75.	19 95.	5 100.	4 100.	4 100.	6 100.	20 91.	11 92.
Drive pay less than \$1	1 2.					1 5.									1 8.
Drive pay \$1-1.99	1 2.														
Drive pay \$2-2.99															
Drive pay \$3-4.99	1 2.	1 3.				1 5.									1 5.
Drive pay \$5-7.49	3 7.	3 10.			1 10.	2 10.			1 5.						1 5.
Drive pay \$7.50-9.99															
Drive pay \$10 or more															
No response															

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 4 After you get off this bus, how many blocks will you walk/ How much will your parking fee be?

BREAK TWO	TOTAL	FARE TYPE						INCOME								
	SAMPLE	TRANS PER	CASH	MONTH PASS	STUD CCLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 44999	50K+	
Total	4378	600	1595	1126	665	339	219	886	781	506	365	262	293	211	212	
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	
Number of blocks will walk	4336	598	1576	1116	661	336	212	877	737	504	363	259	285	208	209	
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	
Walk 0 blocks	872	126	339	206	125	67	64	210	135	87	66	40	40	37	35	
	20.	21.	22.	18.	19.	20.	30.	24.	18.	17.	18.	15.	14.	18.	17.	
Walk 1-3 blocks	2754	363	934	748	429	230	118	527	462	343	241	172	199	144	133	
	64.	61.	59.	67.	65.	68.	56.	60.	61.	68.	66.	66.	70.	69.	64.	
Walk 4-7 blocks	620	97	261	140	99	37	26	122	126	61	53	42	40	23	31	
	14.	16.	17.	13.	15.	11.	12.	14.	17.	12.	15.	16.	14.	11.	15.	
Walk 8-10 blocks	60	9	32	11	5	1	3	10	9	7	3	6	4	4	6	
	1.	2.	2.	1.	1.	*	1.	2.	1.	1.	1.	2.	1.	2.	3.	
Walk more than 10 blocks	28	2	10	10	3	1	1	3	5	6	1		2	1	4	
	1.	*	1.	1.	*	*	*	*	1.	1.	*		1.	*	2.	
No response																
Drive/will pay parking fee	42	2	19	10	4	3	6	8	5	2	2	2	8	2	8	
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	
Drive pay no parking	36	2	15	8	4	3	6	8	4	1	2	2	8	2	3	
	86.	100.	79.	80.	100.	100.	100.	100.	80.	50.	100.	100.	100.	100.	75.	
Drive pay less than \$1	1															
	2.															
Drive pay \$1-1.99	1															
	2.															
Drive pay \$2-2.99																
Drive pay \$3-4.99	1		1													
	2.		5.													
Drive pay \$5-7.49	3		2	1												
	7.		11.	10.												
Drive pay \$7.50-9.99															1	
															25.	
Drive pay \$10 or more																
No response																

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 4 After you get off this bus, how many blocks will you walk/ How much will your parking fee be?

BREAK THREE	TOTAL  -----AGE-----								---SEX---		EX LOCAL	
	SAMPLE	LI 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	FRES	LOCAL
Total	4378 100.	485 100.	1110 100.	1017 100.	524 100.	268 100.	193 100.	258 100.	1952 100.	2100 100.	435 100.	3943 100.
Number of blocks will walk	4336 100.	484 100.	1103 100.	1008 100.	521 100.	265 100.	191 100.	255 100.	1933 100.	2083 100.	425 100.	3911 100.
Walk 0 blocks	872 20.	90 19.	240 22.	184 18.	84 16.	50 19.	30 16.	50 20.	362 19.	423 20.	86 20.	387 20.
Walk 1-3 blocks	2754 64.	308 64.	677 61.	650 64.	354 68.	170 64.	133 70.	174 68.	1207 62.	1366 66.	257 60.	2497 64.
Walk 4-7 blocks	620 14.	76 16.	157 14.	157 16.	70 13.	40 15.	23 12.	29 11.	315 16.	261 13.	67 16.	552 14.
Walk 8-10 blocks	60 1.	8 2.	21 2.	10 1.	7 1.	4 2.	2 1.	2 1.	34 2.	22 1.	11 3.	49 1.
Walk more than 10 blocks	28 1.	2 0.	8 1.	6 1.	5 1.	1 0.	2 1.	1 0.	15 1.	9 0.	4 1.	24 1.
No response												
Drive/will pay parking fee	42 100.	1 100.	7 100.	9 100.	4 100.	3 100.	2 100.	2 100.	19 100.	17 100.	10 100.	37 100.
Drive pay no parking	36 86.	1 100.	7 100.	9 100.	4 100.	2 67.	1 50.	2 100.	17 89.	14 82.	9 90.	29 88.
Drive pay less than \$1	1 2.											1 3.
Drive pay \$1-1.99	1 2.											
Drive pay \$2-2.99												
Drive pay \$3-4.99	1 2.						1 50.		1 5.			1 3.
Drive pay \$5-7.49	3 7.								1 5.	2 12.	1 10.	2 6.
Drive pay \$7.50-9.99												
Drive pay \$10 or more												
No response												

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

Question 4 What bus system will you transfer to?

	TOTAL	TOTAL	TOTAL	TOTAL	ETHNIC				TRIP PURPOSE			VEHICLE			
	SAMPLE	WEEK	SATUR	SUNDAY	WHITE	HIS	BLACK	ASIAN	WORK	SCHCL	MECI	SHCP	RECREA	AVAILABLE	NC
	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY
Total	149	125	14	10	25	46	45	15	59	27	13	14	11	29	110
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Bus system will transfer to															
Santa Monica	7	7			1		4	1	4	1		1			6
	5.	6.			4.		9.	7.	7.	4.		7.			5.
Long Beach	3	3			2	1	1		2	1					3
	2.	2.			2.	2.	2.		3.	4.					3.
Culver	2	2			2				2			1		1	2
	1.	2.			2.				3.			7.		3.	2.
Gardena	2	1		1		1	1		2						2
	1.	1.		10.		2.	2.		3.						2.
Torrance	2	2			1		1		2						2
	1.	2.			4.		2.		3.						2.
Montebello	1	1				1									1
	1.	1.				2.									1.
Norwalk															
No response	130	109	12	9	19	44	38	13	48	25	13	12	10	27	95
	87.	87.	86.	90.	76.	96.	44.	87.	81.	93.	100.	86.	91.	93.	86.

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 4 What bus system will you transfer to?

BREAK TWO

	TOTAL SAMPLE	FARE TYPE			INCOME										
		TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+
Total	149 100.	24 100.	63 100.	23 100.	31 100.	6 100.	12 100.	29 100.	18 100.	15 100.	15 100.	6 100.	10 100.	9 100.	11 100.
Bus system will transfer to															
Santa Monica	7 5.	1 4.	3 5.	3 13.	1 3.			1 3.	1 6.	3 20.	1 7.		1 10.		
Long Beach	3 2.	1 4.	2 3.		1 3.						1 7.			1 11.	
Culver	2 1.	1 4.	1 2.						1 6.						1 9.
Gardena	2 1.		1 2.	1 4.				2 7.							
Torrance	2 1.		1 2.		1 3.								1 10.		
MonteBello	1 1.														
Norwalk															
No response	130 87.	22 92.	55 87.	18 76.	28 90.	6 100.	11 92.	25 86.	16 89.	11 71.	13 87.	5 83.	6 60.	8 89.	10 91.

FREQUENCIES IN 1000's



SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 4 What bus system will you transfer to?

TOTAL |-----AGE-----|

SAMPLE LT 18 18-24 25-34 35-44 45-54 55-64 65+

149 20 43 27 13 7 10 5  
100. 100. 100. 100. 100. 100. 100. 100.

|---SFX---|

MALE FEMALE FRESH LOCAL  
65 69 18 131  
100. 100. 100. 100.

BREAK THREE

Total

Bus system will transfer to

Santa Monica

Long Beach

Culver

Gardena

Torrance

MonteBello

Norwalk

No response

7		3	4				1
5.		7.	15.				20.
3		2	1				
2.		5.	4.				
2		1			1		
1.		2.			14.		
2		1			1		
1.		2.			14.		
2		1					
1.		2.					
1							
1.							
130	19	35	22	13	5	10	3
87.	95.	81.	81.	100.	71.	100.	60.

56	58	15	115
86.	85.	83.	88.

FREQUENCIES IN 1000's

Question 5 Where are you going?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP		PURPOSE			VEHICLE	
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDI CAL	SHOP PING	RECRE ATION	AVAILA BLE	TYPE
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	807 100.	812 100.	461 100.	1296 100.	4763 100.
Home	2458 37.	2002 37.	280 39.	177 34.	485 37.	1063 39.	514 36.	158 33.	988 33.	874 40.	113 28.	222 27.	98 21.	481 37.	1759 37.
Work	1790 27.	1555 29.	130 18.	105 20.	322 25.	818 30.	376 26.	128 27.	1790 60.	65 5.	14 3.	15 2.	9 2.	367 28.	1277 27.
School	568 9.	544 10.	17 2.	7 1.	21 7.	214 8.	127 9.	82 17.	29 1.	568 48.	3 1.	4 4.	3 1.	137 11.	394 9.
Shopping	526 8.	339 6.	115 16.	72 14.	125 10.	195 7.	122 8.	37 8.	45 2.	22 2.	8 2.	526 65.	10 2.	75 6.	407 9.
Medical	255 4.	233 4.	17 2.	6 1.	46 4.	120 4.	48 3.	15 3.	21 1.	5 4.	255 63.	7 1.	3 1.	29 2.	200 4.
Recreation	238 4.	130 2.	52 7.	57 11.	68 5.	75 3.	52 4.	17 4.	20 1.	12 1.	2 4.	7 1.	238 52.	56 4.	164 3.
Personal business	125 2.	92 2.	15 2.	17 3.	46 4.	25 1.	37 3.	7 1.	9 4.	4 4.	1 4.	3 4.	5 1.	19 1.	101 2.
Visiting friends/relatives	82 1.	50 1.	17 2.	14 3.	27 2.	19 1.	22 2.	3 1.	7 4.	3 4.	4 4.	8 18.	82 18.	15 1.	61 1.
Another bus/transfer	3 *	2 *				1 *	1 *								2 4.
Other	379 6.	282 5.	51 7.	46 9.	71 5.	123 4.	124 9.	26 5.	43 1.	21 2.	6 1.	14 2.	8 2.	70 5.	290 6.
No response															

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

Question 5 Where are you going to?

	BREAK TWO							INCOME							
	TOTAL SAMPLE	TRANS PER	CASH	FARE MONTH PASS	TYPE STUD COIL	SENIOR PASS	HAND PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+
Total	6646 100.	857 100.	2394 100.	1732 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	754 100.	569 100.	398 100.	442 100.	321 100.	331 100.
Home	2458 37.	319 37.	864 36.	648 36.	435 43.	182 36.	117 34.	508 39.	397 36.	278 37.	221 39.	146 37.	156 35.	105 33.	139 42.
Work	1790 27.	238 28.	706 29.	655 37.	112 11.	80 16.	49 14.	308 23.	301 27.	244 32.	168 30.	119 30.	146 33.	101 31.	97 29.
School	568 9.	54 6.	145 6.	81 5.	275 27.	11 2.	28 8.	90 7.	94 9.	54 7.	52 9.	29 7.	43 10.	30 9.	29 9.
Shopping	526 8.	59 7.	180 8.	116 7.	57 6.	91 18.	33 10.	108 8.	97 9.	63 8.	34 6.	31 8.	33 7.	27 8.	14 4.
Medical	255 4.	33 4.	110 5.	39 2.	26 3.	38 8.	27 8.	71 5.	52 5.	27 4.	18 3.	20 5.	9 2.	7 2.	4 1.
Recreation	238 4.	29 3.	91 4.	54 3.	25 2.	24 5.	26 8.	57 4.	31 3.	20 3.	16 3.	14 4.	18 4.	12 4.	18 5.
Personal business	125 2.	16 2.	45 2.	30 2.	5 0.	23 5.	11 3.	25 2.	22 2.	11 1.	11 2.	9 2.	12 3.	12 4.	8 2.
Visiting friends/relatives	82 1.	11 1.	32 1.	14 1.	13 1.	6 1.	5 1.	14 1.	13 1.	10 1.	7 1.	5 1.	5 1.	3 1.	5 2.
Another bus/transfer	3 0.	1 0.					1 0.		1 0.	1 0.					
Other	379 6.	70 8.	152 6.	87 5.	41 4.	17 3.	29 9.	83 6.	57 5.	37 5.	35 6.	16 4.	24 5.	21 7.	13 4.
No response															

FREQUENCIES IN 1000's  
(\* = PERCENT LESS THAN .5)

Question 5 Where are you going to?

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LCCMI
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Home	2458 37.	328 47.	580 35.	516 33.	333 41.	174 41.	118 39.	136 37.	1036 36.	1250 39.	248 36.	2211 37.
Work	1790 27.	43 6.	484 30.	522 34.	256 31.	136 32.	86 28.	42 12.	854 29.	796 25.	210 30.	1580 27.
School	568 9.	170 24.	200 12.	96 6.	23 3.	12 3.	2 1.	10 3.	255 9.	284 9.	74 11.	494 8.
Shopping	526 8.	55 8.	96 6.	105 7.	51 6.	38 9.	35 11.	80 22.	208 7.	282 9.	28 4.	498 8.
Medical	255 4.	13 2.	51 3.	54 3.	31 4.	12 3.	21 7.	29 8.	77 3.	153 5.	17 2.	228 4.
Recreation	238 4.	25 4.	49 3.	57 4.	28 3.	13 3.	12 4.	19 5.	133 5.	84 3.	29 4.	210 4.
Personal business	125 2.	7 1.	22 1.	30 2.	13 2.	8 2.	11 4.	20 6.	52 2.	65 2.	17 2.	108 2.
Visiting friends/relatives	82 1.	14 2.	23 1.	19 1.	8 1.	4 1.	1 *	5 1.	35 1.	42 1.	11 2.	71 1.
Another bus/transfer	3 *		1 *		1 *				1 *	2 *		2 *
Other	379 6.	29 4.	100 6.	116 7.	42 5.	20 5.	11 4.	15 4.	177 6.	169 5.	23 3.	348 6.
No response												

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 0 What is your age?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE				VEHICLE AVAILABLE		
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHCCL	MECI CAL	SHCP INC	RECRFA TICN	YES	NC
Total	6646	5398	721	527	1303	2757	1447	482	2991	1182	407	812	461	1296	4763
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
10-14 years	155	120	22	17	25	57	39	13	10	93	10	20	13	41	98
	2.	2.	3.	2.	2.	2.	3.	3.	*	8.	2.	2.	3.	3.	2.
15-19 years	1066	870	107	89	160	441	256	96	248	511	33	118	77	211	799
	16.	16.	15.	17.	12.	16.	18.	20.	9.	45.	8.	15.	17.	16.	17.
20-24 years	1116	916	112	88	169	574	220	66	582	190	55	104	77	194	853
	17.	17.	16.	17.	13.	21.	15.	14.	19.	16.	14.	13.	17.	15.	18.
25-29 years	859	690	93	76	128	428	197	50	499	93	50	80	52	152	650
	13.	13.	13.	14.	10.	16.	14.	10.	17.	8.	12.	10.	11.	12.	14.
30-34 years	697	575	72	50	110	302	183	56	387	54	41	69	53	143	503
	10.	11.	10.	9.	8.	11.	13.	12.	13.	5.	10.	8.	11.	11.	11.
35-39 years	502	411	56	36	96	221	120	30	281	36	36	64	32	103	370
	8.	8.	8.	7.	7.	8.	8.	6.	9.	3.	9.	8.	7.	8.	8.
40-44 years	316	258	34	24	76	115	63	29	180	14	20	38	20	72	213
	5.	5.	5.	5.	6.	4.	4.	6.	6.	1.	5.	5.	4.	6.	4.
45-49 years	240	201	27	12	57	100	45	17	129	17	14	37	14	45	177
	4.	4.	8.	2.	4.	4.	3.	4.	4.	1.	3.	5.	3.	3.	4.
50-54 years	187	154	18	15	61	64	33	10	104	4	14	20	8	45	125
	3.	3.	2.	3.	5.	2.	2.	2.	3.	*	3.	2.	2.	3.	3.
55-59 years	154	130	14	11	44	51	29	14	90	2	10	25	7	31	110
	2.	2.	2.	2.	3.	2.	2.	3.	3.	*	2.	3.	2.	2.	2.
60-64 years	151	122	13	16	53	39	25	22	58	2	22	27	12	36	107
	2.	2.	2.	3.	4.	1.	2.	5.	2.	*	5.	3.	3.	3.	2.
65-69 years	141	120	14	8	62	29	21	14	16	3	17	39	9	23	103
	2.	2.	2.	2.	5.	1.	1.	3.	1.	*	4.	5.	2.	2.	2.
70-79 years	170	133	21	16	86	30	19	18	30	9	20	53	17	32	105
	3.	2.	3.	3.	7.	1.	1.	4.	1.	1.	5.	7.	4.	2.	2.
80-89 years	49	41	4	4	32	11	2	2	5	1	8	20	7	4	38
	1.	1.	1.	1.	2.	*	*	*	*	*	2.	2.	2.	1.	1.
90-99 years	2	2			1		1		1						2
	*	*			*		*		*						4
No response	837	654	114	69	141	296	194	47	349	132	56	97	62	158	511
	13.	12.	16.	13.	11.	11.	13.	10.	12.	11.	14.	12.	13.	12.	11.
Average	32.16	32.22	31.94	31.82	30.95	29.73	30.27	33.25	32.55	21.56	38.10	37.56	32.49	32.34	31.75

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 8 What is your age?

BREAK TWO	TOTAL SAMPLE	FARE TYPE		FARE TYPE			INCOME									
		TRANS FER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND. PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	311 100.	
10-14 years	155 2.	13 2.	43 2.	14 1.	82 8.		10 3.	21 2.	10 1.	14 2.	7 1.	6 2.	10 2.	9 3.	16 5.	
15-19 years	1066 16.	129 15.	329 14.	112 6.	498 50.	9 2.	49 14.	203 15.	129 12.	79 10.	75 13.	53 13.	85 19.	54 17.	86 28.	
20-24 years	1116 17.	168 20.	502 21.	291 16.	157 15.	10 2.	40 12.	216 16.	190 17.	128 17.	94 17.	70 18.	74 17.	45 14.	48 15.	
25-29 years	859 13.	137 16.	385 16.	257 14.	73 7.	8 2.	29 9.	171 13.	164 15.	105 14.	82 14.	57 14.	63 14.	46 14.	30 9.	
30-34 years	697 10.	105 12.	291 12.	249 14.	38 4.	9 2.	33 10.	151 11.	119 11.	98 13.	79 14.	51 13.	38 8.	35 11.	27 8.	
35-39 years	502 8.	62 7.	211 9.	181 10.	26 3.	5 1.	25 7.	93 7.	104 9.	69 9.	50 9.	30 8.	40 9.	23 7.	30 9.	
40-44 years	316 5.	53 6.	116 5.	136 8.	13 1.	9 2.	10 3.	68 5.	44 4.	48 6.	28 5.	20 5.	19 4.	22 7.	14 4.	
45-49 years	240 4.	23 3.	93 4.	99 6.	9 1.	3 1.	20 6.	54 4.	47 4.	28 4.	28 5.	12 3.	18 4.	14 4.	8 2.	
50-54 years	187 3.	24 3.	61 3.	81 5.	6 1.	5 1.	15 4.	36 3.	22 2.	21 3.	17 3.	20 5.	13 3.	9 3.	15 5.	
55-59 years	154 2.	19 2.	47 2.	71 4.	2 *	2 *	17 5.	26 2.	25 2.	24 3.	11 2.	14 4.	15 3.	9 3.	7 2.	
60-64 years	151 2.	8 1.	32 1.	40 2.		59 12.	19 6.	29 2.	26 2.	16 2.	15 3.	12 3.	9 2.	12 4.	7 2.	
65-69 years	141 2.	6 1.	10 *	9 1.	2 *	118 24.	8 2.	27 2.	41 4.	19 3.	15 3.	7 2.	4 1.	5 2.	2 1.	
70-79 years	170 3.	7 1.	9 *	15 1.	7 1.	140 28.	6 2.	35 3.	45 4.	25 3.	14 2.	4 1.	8 2.	8 2.	3 1.	
80-89 years	49 1.	1 *	6 *	3 *	1 *	39 8.	3 1.	12 1.	8 1.	9 1.	3 1.	1 *	4 1.		2 1.	
90-99 years	2 *		2 *													
No response	837 13.	102 12.	256 11.	223 13.	97 10.	82 16.	58 17.	152 12.	127 12.	75 10.	52 9.	42 11.	48 11.	31 10.	35 11.	
Average	32.16	29.80	29.70	33.99	20.90	64.97	35.68	32.38	34.37	34.24	33.18	32.31	31.21	32.31	28.88	

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

Question # What is your age?

	TOTAL  -----AGF-----								---SEX---			
	SAMPLE	LI 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LOCAL
Total	6646	698	1640	1556	819	427	306	363	2905	3205	609	5957
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
10-14 years	155	155							73	80	14	141
	2.	22.							3.	2.	2.	2.
15-19 years	1066	541	524						487	556	100	966
	16.	78.	32.						17.	17.	16.	16.
20-24 years	1116		1116						525	544	121	995
	17.		68.						18.	17.	18.	17.
25-29 years	859			859					434	394	105	764
	13.			55.					15.	12.	15.	13.
30-34 years	697			697					337	336	76	621
	10.			45.					12.	10.	11.	10.
35-39 years	502				502				203	267	54	448
	8.				61.				7.	8.	8.	8.
40-44 years	316				316				145	155	40	277
	5.				39.				5.	5.	6.	5.
45-49 years	240					240			93	144	22	218
	4.					56.			3.	4.	3.	4.
50-54 years	187					187			77	97	24	163
	3.					44.			3.	3.	3.	3.
55-59 years	154						154		76	68	14	140
	2.						50.		3.	2.	2.	2.
60-64 years	151						151		57	87	16	135
	2.						49.		2.	3.	2.	2.
65-69 years	141							141	55	81	15	126
	2.							39.	2.	3.	2.	2.
70-79 years	170							170	66	99	20	150
	3.							47.	2.	3.	3.	3.
80-89 years	49							49	24	24	3	46
	1.							13.	1.	1.	4	1.
90-99 years	2							2		2		2
	*							1.		*		*
No response	837								251	268	64	773
	13.								9.	8.	9.	12.
Average	32.16	15.44	20.78	28.99	39.55	49.02	59.14	72.16	31.45	32.65	32.46	32.12

FREQUENCIES IN 1000's  
 (\*= PERCENT LESS THAN .5)

## SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 9 Are you male or female?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE			VEHICLE- AVAILABLE			
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDI CAL	SHOP PING	RECREA TION	YFS	VC
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Male	2905 44.	2346 43.	309 43.	250 47.	617 47.	1215 44.	601 42.	231 48.	1373 46.	514 43.	121 30.	309 38.	255 55.	625 48.	2081 44.
Female	3205 48.	2646 49.	327 45.	231 44.	617 47.	1316 48.	753 52.	231 48.	1387 46.	601 51.	248 61.	445 55.	171 37.	583 45.	2368 50.
No response	536 8.	406 8.	84 12.	46 9.	68 5.	226 8.	93 6.	20 4.	232 8.	67 6.	38 9.	57 7.	36 8.	88 7.	314 7.

FREQUENCIES IN 1000's



SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 9 Are you male or female?

BREAK TWO

	TOTAL SAMPLE	FARE TYPE					INCOME								
		TRANS FER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	399 100.	440 100.	321 100.	331 100.
Male	2905 44.	378 44.	1042 44.	809 45.	452 45.	182 36.	158 46.	520 40.	469 47.	362 48.	266 47.	187 47.	239 53.	173 54.	201 61.
Female	3205 48.	420 49.	1174 49.	833 47.	505 50.	275 55.	140 41.	686 52.	555 50.	351 46.	273 48.	189 47.	183 41.	131 41.	113 34.
No response	536 8.	59 7.	178 7.	139 8.	50 5.	41 8.	42 12.	110 8.	77 7.	44 6.	31 5.	22 6.	26 6.	17 5.	17 5.

FREQUENCIES IN 1000's

Question 9 Are you male or female?

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LCCPI
Total	6646	698	1640	1556	819	827	306	363	2905	3205	689	5957
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Male	2905	311	774	771	348	170	133	146	2905		326	2579
	44.	45.	47.	50.	42.	40.	43.	40.	100.		47.	43.
Female	3205	370	813	730	422	240	155	206		3205	324	2881
	48.	53.	50.	47.	52.	56.	51.	57.		100.	47.	48.
No response	536	16	53	54	49	17	17	11			38	497
	8.	2.	3.	3.	6.	4.	6.	3.			6.	8.

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 10 What type of fare did you use to get on this bus?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE			VEHICLE AVAILABLE			
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHCCL	MECI CAL	SHCP INC	RECREA TICN	YES	NO
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Cash/token/ticket fare	2394 36.	1925 36.	261 36.	208 39.	454 35.	1105 40.	514 36.	121 25.	1170 39.	285 24.	165 41.	277 34.	172 37.	468 36.	1756 37.
Regular monthly pass	1641 25.	1337 25.	183 25.	121 23.	279 21.	757 27.	356 25.	115 24.	1028 34.	132 11.	63 15.	162 20.	94 20.	297 23.	1198 25.
Used a transfer	857 13.	682 13.	96 13.	80 15.	151 12.	352 13.	225 16.	51 11.	383 13.	116 10.	60 15.	108 13.	67 15.	152 12.	644 14.
Student pass	738 11.	622 12.	72 10.	44 8.	91 7.	323 12.	166 11.	85 18.	97 3.	466 39.	32 8.	74 9.	46 10.	170 13.	525 11.
Senior citizen pass	499 8.	399 7.	59 8.	40 8.	211 16.	121 4.	57 4.	57 12.	131 4.	15 1.	58 14.	134 17.	40 9.	101 8.	335 7.
College/Vocational pass	280 4.	237 4.	20 3.	22 4.	29 2.	108 4.	70 5.	51 11.	95 3.	156 13.	8 2.	19 2.	12 3.	63 5.	197 4.
Monthly pass/express stamp	154 2.	132 2.	16 2.	6 1.	43 3.	43 2.	38 3.	13 3.	106 4.	17 1.	2 0.	10 1.	6 1.	47 4.	93 2.
Employee pass/yearly pass/other	144 2.	113 2.	16 2.	15 3.	55 4.	30 1.	39 3.	2 0.	25 1.	9 1.	26 6.	24 3.	22 5.	18 1.	116 2.
Handicapped pass	73 1.	62 1.	7 1.	4 1.	23 2.	19 1.	16 1.	4 1.	27 1.	11 1.	3 1.	9 1.	12 3.	20 2.	87 1.
No response	204 3.	157 3.	26 4.	21 4.	19 1.	55 2.	26 2.	9 2.	78 3.	34 3.	13 3.	22 3.	7 2.	27 2.	76 2.

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 10 What type of fare did you use to get on this bus?

BREAK TWO	TOTAL SAMPLE	FARE TYPE						INCOME								
		TRANS FER	CASH	MONTH PASS	STUD COLI.	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 30999	35K- 49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.	
Cash/token/ticket fare	2394 36.	130 15.	2394 100.	45 3.	18 2.	11 2.	67 20.	495 38.	412 37.	250 33.	196 34.	151 38.	158 35.	130 40.	139 42.	
Regular monthly pass	1641 25.	23 3.	44 2.	1641 92.	26 3.	33 7.	28 8.	335 25.	275 25.	226 30.	174 31.	111 28.	111 25.	72 22.	52 16.	
Used a transfer	857 13.	857 100.	130 5.	26 1.	15 1.	6 1.	31 9.	169 13.	122 11.	102 13.	73 13.	45 11.	76 17.	44 14.	51 15.	
Student pass	738 11.	11 1.	10 *	22 1.	738 73.	5 1.	36 11.	136 10.	105 10.	71 9.	55 10.	41 10.	35 8.	28 9.	49 15.	
Senior citizen pass	499 8.	6 1.	11 *	38 2.	5 *	499 100.	26 8.	108 8.	114 10.	59 8.	36 6.	23 6.	26 6.	13 4.	14 4.	
College/Vocational pass	280 4.	5 1.	8 *	7 *	280 28.	2 *	5 1.	35 3.	50 5.	36 5.	25 4.	20 5.	27 6.	16 5.	12 4.	
Monthly pass/express stamp	154 2.	3 *	2 *	154 9.	3 *	5 1.	7 2.	21 2.	20 2.	14 2.	12 2.	9 2.	17 4.	16 5.	13 4.	
Employee pass/yearly pass/other	144 2.	1 *	1 *	1 *		1 *	144 42.	52 4.	31 3.	14 2.	6 1.	3 1.	4 1.	2 1.	2 1.	
Handicapped pass	73 1.	2 *	2 *	7 *		1 *	6 2.	10 1.	11 1.	4 1.	5 1.	3 1.	9 2.	5 2.	6 2.	
No response	204 3.						9 3.	35 3.	16 1.	10 1.	9 2.	7 2.	4 1.	6 2.	2 1.	

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

## SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10 What type of fare did you use to get on this bus?

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LOCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Cash/token/ticket fare	2394 36.	184 26.	692 42.	676 43.	327 40.	154 36.	79 26.	26 7.	1042 36.	1174 37.	283 41.	2111 35.
Regular monthly pass	1641 25.	45 6.	346 21.	478 31.	293 36.	166 39.	97 32.	24 7.	750 26.	769 24.	118 17.	1523 26.
Used a transfer	857 13.	63 9.	246 15.	241 16.	115 14.	47 11.	27 9.	14 4.	378 13.	420 13.	94 14.	763 13.
Student pass	738 11.	390 56.	185 11.	47 3.	16 2.	11 3.	3 1.	8 2.	331 11.	372 12.	62 9.	677 11.
Senior citizen pass	499 8.	3 *	17 1.	17 1.	14 2.	8 2.	61 20.	298 82.	182 6.	275 9.	50 7.	449 8.
College/Vocational pass	280 4.	5 1.	160 10.	66 4.	23 3.	7 2.		1 *	124 4.	140 4.	36 5.	243 4.
Monthly pass/express stamp	154 2.	6 1.	21 1.	32 2.	27 3.	18 4.	15 5.	4 1.	66 2.	70 2.	62 9.	93 2.
Employee pass/yearly pass/other	144 2.	2 *	8 *	29 2.	24 3.	30 7.	25 8.	3 1.	71 2.	60 2.	14 2.	130 2.
Handicapped pass	73 1.	10 1.	18 1.	15 1.	10 1.	5 1.	2 1.	3 1.	35 1.	31 1.	13 2.	60 1.
No response	204 3.	13 2.	28 2.	34 2.	10 1.	14 3.	8 3.	6 2.	57 2.	64 2.	16 2.	184 3.

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 10. What was the amount of your cash/ticket/token fare/ What was the amount of your senior citizen pass?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE			VEHICLE AVAILABLE			
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOL	MEDICAL	SHCP INC	RECREA TICN	YES	NO
Total	2882 100.	2317 100.	319 100.	246 100.	663 100.	1221 100.	570 100.	178 100.	1299 100.	300 100.	222 100.	410 100.	212 100.	567 100.	2087 100.
Cash/token/ticket fare	2394 100.	1925 100.	261 100.	208 100.	454 100.	1105 100.	514 100.	121 100.	1170 100.	285 100.	165 100.	277 100.	172 100.	468 100.	1756 100.
Cash/token/ticket/no fare mention	882 37.	703 37.	101 39.	77 38.	104 23.	478 43.	182 35.	45 37.	440 38.	96 34.	68 41.	109 39.	52 30.	173 37.	628 36.
Cash/token/ticket/less than 50¢	25 1.	20 1.	2 1.	2 1.	6 1.	12 1.	5 1.	1 1.	10 1.	3 1.	1 1.	0 1.	1 1.	0 1.	17 1.
Cash/token/ticket/50-99¢	906 38.	743 39.	90 34.	73 35.	252 56.	350 32.	181 35.	51 42.	447 38.	120 42.	54 33.	103 37.	77 45.	193 41.	673 38.
Cash/token/ticket/\$1-1.99	544 23.	433 22.	60 23.	51 25.	87 19.	247 22.	139 27.	21 17.	251 21.	63 22.	40 24.	58 21.	39 23.	87 19.	418 24.
Cash/token/ticket/\$2-2.60	33 1.	22 1.	8 3.	3 1.	5 1.	16 1.	6 1.	4 3.	19 2.	3 1.	1 1.	2 1.	4 2.	9 2.	19 1.
No response															
Senior Citizen Pass	499 100.	399 100.	59 100.	40 100.	211 100.	121 100.	57 100.	57 100.	131 100.	15 100.	58 100.	134 100.	40 100.	101 100.	338 100.
Senior citizen pass/no fare mention	193 39.	157 39.	20 34.	16 40.	68 32.	48 40.	27 47.	23 40.	48 37.	10 67.	25 43.	43 32.	18 45.	31 31.	130 39.
Senior citizen pass/\$4	206 41.	167 42.	26 44.	12 30.	107 51.	37 31.	23 40.	24 42.	48 37.	4 27.	25 43.	69 51.	13 33.	46 46.	145 43.
Senior citizen pass/\$5	1 4.														1 4.
Senior citizen pass/\$6															
Senior citizen pass/\$7 or more	92 18.	69 17.	13 22.	10 25.	32 15.	35 29.	7 12.	10 18.	34 26.	1 7.	7 12.	22 16.	8 20.	21 21.	57 17.
No response															

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10 What was the amount of your cash/ticket/token fare/ What was the amount of your senior citizen pass?

BREAK TWO	TOTAL	FARE TYPE							INCOME						
	SAMPLE	TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+
Total	2882 100.	135 100.	2394 100.	83 100.	22 100.	499 100.	92 100.	600 100.	524 100.	309 100.	232 100.	171 100.	184 100.	143 100.	153 100.
Cash/token/ticket fare	2394 100.	130 100.	2394 100.	45 100.	18 100.	11 100.	67 100.	495 100.	412 100.	250 100.	196 100.	151 100.	158 100.	130 100.	139 100.
Cash/token/ticket/no fare mention	882 37.	59 45.	882 37.	25 54.	10 56.	8 36.	45 67.	204 41.	168 41.	80 32.	74 38.	51 34.	47 30.	38 29.	44 32.
Cash/token/ticket/less than 50¢	25 1.	4 3.	25 1.	5 11.				10 2.	4 1.	2 1.	1 1.	1 1.	3 2.		
Cash/token/ticket/50-99¢	906 38.	36 28.	906 38.	6 13.	4 22.	5 45.	10 15.	161 33.	151 37.	102 41.	76 39.	63 42.	63 40.	63 48.	57 41.
Cash/token/ticket/\$1-1.99	544 23.	30 23.	544 23.	8 17.	2 11.	2 18.	11 16.	114 23.	85 21.	58 23.	42 21.	34 23.	42 27.	27 21.	35 25.
Cash/token/ticket/\$2-2.60	33 1.		33 1.	1 2.			1 1.	7 1.	3 1.	5 2.	2 1.	1 1.	3 2.	2 2.	2 1.
No response															
Senior Citizen Pass	499 100.	6 100.	11 100.	38 100.	5 100.	499 100.	26 100.	108 100.	114 100.	59 100.	36 100.	23 100.	26 100.	13 100.	14 100.
Senior citizen pass/no fare mention	193 39.	5 83.	5 45.	21 55.	1 20.	193 39.	16 62.	52 48.	38 33.	19 32.	11 31.	5 22.	5 19.	6 46.	3 21.
Senior citizen pass/\$4	206 41.			7 18.	3 60.	206 41.	7 27.	31 29.	59 52.	31 53.	15 42.	11 48.	16 62.	5 38.	6 43.
Senior citizen pass/\$5	1 *														
Senior citizen pass/\$6															
Senior citizen pass/\$7 or more	92 18.	1 17.	4 36.	9 24.		92 18.	3 12.	23 21.	16 14.	9 15.	8 22.	4 17.	4 15.	2 15.	4 29.
No response															

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 10 What was the amount of your cash/ticket/token fare/ What was the amount of your senior citizen pass?

BREAK THREE	TOTAL SAMPLE	AGE							SEX			
		LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LCCPI
Total	2882 100.	186 100.	705 100.	692 100.	341 100.	162 100.	140 100.	321 100.	1219 100.	1486 100.	332 100.	2550 100.
Cash/token/ticket fare	2394 100.	184 100.	692 100.	676 100.	327 100.	154 100.	79 100.	26 100.	1042 100.	1174 100.	283 100.	2111 100.
Cash/token/ticket/no fare mention	82 37.	65 35.	247 36.	220 33.	128 39.	62 40.	23 29.	10 38.	359 34.	433 37.	91 37.	792 38.
Cash/token/ticket/less than 50¢	25 1.		8 1.	7 1.	3 1.	1 1.	1 1.	3 12.	6 1.	19 2.	6 2.	19 1.
Cash/token/ticket/50-99¢	906 38.	77 42.	238 34.	276 41.	136 42.	67 44.	37 47.	8 31.	383 37.	479 41.	82 29.	824 39.
Cash/token/ticket/\$1-1.99	544 23.	40 22.	186 27.	160 24.	59 18.	23 15.	17 22.	5 19.	276 26.	230 20.	87 31.	457 22.
Cash/token/ticket/\$2-2.60	33 1.	1 1.	10 1.	12 2.	2 1.	1 1.	3 3.		18 2.	11 1.	18 6.	15 1.
No response												
Senior Citizen Pass	499 100.	3 100.	17 100.	17 100.	14 100.	8 100.	61 100.	298 100.	182 100.	275 100.	50 100.	849 100.
Senior citizen pass/no fare mention	193 39.	2 67.	10 59.	9 53.	6 43.	4 50.	22 36.	105 35.	60 33.	114 41.	22 44.	171 38.
Senior citizen pass/\$4	206 41.		1 6.			3 38.	25 41.	146 49.	76 42.	118 43.	13 26.	193 43.
Senior citizen pass/\$5	1 *									1 *		1 *
Senior citizen pass/\$6												
Senior citizen pass/\$7 or more	92 18.		4 24.	7 41.	7 50.	1 13.	14 23.	48 15.	44 24.	39 14.	13 26.	78 17.
No response												

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)



SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10 What was the amount of your regular pass/What was the amount of your monthly pass?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE		RECREATION			VEHICLE AVAILABLE	
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDICAL	SINCE INC	RECREATION	YES	NO
Total	1782 100.	1456 100.	198 100.	127 100.	316 100.	794 100.	393 100.	127 100.	1123 100.	144 100.	65 100.	171 100.	99 100.	338 100.	1285 100.
Regular Pass	1641 100.	1337 100.	183 100.	121 100.	279 100.	757 100.	356 100.	115 100.	1028 100.	132 100.	63 100.	162 100.	94 100.	297 100.	1198 100.
Regular pass/no fare mention	341 21.	276 21.	41 22.	25 21.	35 13.	154 20.	87 24.	28 24.	198 19.	29 22.	14 22.	31 19.	23 24.	66 22.	227 19.
Regular pass/\$32	1159 71.	945 71.	130 71.	83 69.	207 74.	552 73.	245 69.	74 68.	766 75.	69 52.	42 67.	119 73.	65 69.	193 65.	886 74.
Regular pass/\$40	8 *	7 1.			2 1.	4 1.	1 *		7 1.					4 1.	3 *
Regular pass/\$56	11 1.	10 1.	1		4 1.	2 *	1 *	1	10 1.					5 2.	5 *
Regular pass/\$68	5 *	5 *			3 1.	1 *	1 *	1	4 *					2 1.	2 *
Regular pass/\$80	1 *	1 *			1 *				1 *						
Regular pass/\$92															
No response															
Monthly pass/express stamp	154 100.	132 100.	16 100.	6 100.	43 100.	43 100.	38 100.	13 100.	106 100.	12 100.	2 100.	10 100.	6 100.	47 100.	92 100.
Monthly pass/express stamp/no number	85 55.	68 52.	13 81.	4 67.	14 33.	31 72.	24 63.	5 38.	47 44.	9 75.	2 100.	8 80.	4 67.	17 36.	56 60.
Monthly pass/1 stamp	25 16.	23 17.	1 6.	1 17.	8 19.	5 12.	7 18.	1 8.	20 19.			1 10.	1 17.	9 19.	15 16.
Monthly pass/2 stamps	23 15.	21 16.	1 6.	1 17.	11 26.	3 7.	5 13.	3 23.	19 18.	2 17.		1 10.	1 17.	12 26.	10 11.
Monthly pass/3 stamps	12 8.	11 8.	1 6.		6 14.	3 7.	1 3.	1 8.	12 11.					5 11.	7 8.
Monthly pass/4 stamps	7 5.	7 5.			3 7.		1 3.	3 23.	7 7.					2 4.	5 5.
Monthly pass/5 stamps	2 1.	2 2.			1 2.	2 5.			2 2.					1 2.	1 1.
No response	85 55.	68 52.	13 81.	4 67.	14 33.	31 72.	24 63.	5 38.	47 44.	9 75.	2 100.	8 80.	4 67.	17 36.	56 60.

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10 What was the amount of your regular pass/What was the amount of your monthly pass?

BREAK TWO	TOTAL	FARE TYPE						INCOME								
	SAMPLE	TRANS FER	CASH	MONTHLY PASS	STUD CCIL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+	
Total	1782 100.	26 100.	46 100.	1782 100.	29 100.	38 100.	35 100.	356 100.	294 100.	239 100.	186 100.	120 100.	125 100.	86 100.	63 100.	
Regular Pass	1641 100.	23 100.	44 100.	1641 100.	26 100.	33 100.	28 100.	335 100.	275 100.	226 100.	174 100.	111 100.	111 100.	72 100.	52 100.	
Regular pass/no fare mention	341 21.	11 48.	17 39.	341 21.	9 35.	9 27.	14 50.	69 21.	51 19.	43 19.	32 18.	24 22.	21 19.	13 18.	10 19.	
Regular pass/\$32	1159 71.	10 43.	22 50.	1159 71.	6 23.	10 30.	10 36.	238 71.	199 72.	175 77.	130 75.	81 73.	80 72.	51 71.	32 62.	
Regular pass/\$44	8 *			8 *				2 *	1 *	1 *		1 *	1 *	1 *	1 *	
Regular pass/\$56	11 1.		1 2.	11 1.					1 *	1 *	1 *	1 *	2 *	3 4.	2 4.	
Regular pass/\$68	5 *			5 *				1 *					1 *	2 3.	1 2.	
Regular pass/\$80	1 *			1 *												
Regular pass/\$92																
No response																
Monthly pass/express stamp	154 100.	3 100.	2 100.	154 100.	3 100.	5 100.	7 100.	21 100.	20 100.	14 100.	12 100.	9 100.	17 100.	16 100.	13 100.	
Monthly pass/express stamp/no number	85 55.	2 67.	1 50.	85 55.	2 67.	4 80.	6 86.	18 86.	16 80.	10 71.	7 58.	3 33.	5 29.	3 19.	2 15.	
Monthly pass/1 stamp	25 16.	1 33.	1 50.	25 16.			1 14.	2 10.	1 5.	2 14.	3 25.	3 33.	4 24.	4 25.	3 23.	
Monthly pass/2 stamps	23 15.			23 15.				2 10.	2 10.	1 7.	1 8.	2 22.	5 29.	4 25.	3 23.	
Monthly pass/3 stamps	12 8.			12 8.						1 7.	1 8.	1 11.	2 12.	3 19.	3 23.	
Monthly pass/4 stamps	7 5.			7 5.									1 6.	3 19.	2 15.	
Monthly pass/5 stamps	2 1.			2 1.												
No response	85 55.	2 67.	1 50.	85 55.	2 67.	4 80.	6 86.	18 86.	16 80.	10 71.	7 58.	3 33.	5 29.	3 19.	2 15.	

FREQUENCIES IN 1000's  
(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10 What was the amount of your regular pass/What was the amount of your monthly pass?

BREAK THREE	TOTAL  -----AGE-----									---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	FX PRESS	LOCAL	
Total	1782 100.	50 100.	366 100.	506 100.	317 100.	181 100.	111 100.	28 100.	809 100.	833 100.	173 100.	1669 100.	
Regular Pass	1641 100.	45 100.	346 100.	478 100.	293 100.	166 100.	97 100.	24 100.	750 100.	769 100.	118 100.	1523 100.	
Regular pass/no fare mention	341 21.	10 22.	63 18.	96 20.	62 21.	38 20.	16 16.	7 29.	159 21.	144 19.	23 19.	319 21.	
Regular pass/\$32	1159 71.	6 13.	260 75.	358 75.	221 75.	124 75.	70 72.	3 13.	533 71.	548 71.	66 56.	1093 72.	
Regular pass/\$44	8 *		1 *	2 *	1 *	2 *	1 *		4 1.	3 *	5 4.	2 *	
Regular pass/\$56	11 1.		1 *	2 *	2 1.	3 2.	2 2.		5 1.	6 1.	9 8.	1 *	
Regular pass/\$68	5 *		1 *	1 *	1 *		2 2.		3 *	2 *	3 3.	2 *	
Regular pass/\$80	1 *										1 1.		
Regular pass/\$92													
No response													
Monthly pass/express stamp	154 100.	6 100.	21 100.	32 100.	27 100.	18 100.	15 100.	4 100.	66 100.	70 100.	62 100.	93 100.	
Monthly pass/express stamp/no number	85 55.	5 83.	12 57.	17 53.	10 37.	5 28.	9 60.	3 75.	35 53.	36 51.	19 31.	65 70.	
Monthly pass/1 stamp	25 16.		3 14.	4 13.	7 26.	3 17.	1 7.		11 17.	11 16.	15 24.	10 11.	
Monthly pass/2 stamps	23 15.		5 24.	4 13.	5 19.	4 22.	2 13.		10 15.	12 17.	16 26.	7 8.	
Monthly pass/3 stamps	12 8.		1 5.	3 9.	3 11.	3 17.	2 13.		6 9.	6 9.	8 13.	5 5.	
Monthly pass/4 stamps	7 5.			1 3.	1 4.	3 17.	2 13.		3 5.	4 6.	3 5.	4 4.	
Monthly pass/5 stamps	2 1.			2 6.					1 2.	1 1.	1 2.	2 2.	
No response	85 55.	5 83.	12 57.	17 53.	10 37.	5 28.	9 60.	3 75.	35 53.	36 51.	19 31.	65 70.	

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10a If you used a handicapped cash fare, or a Handicapped Pass, which of the following qualified you to do so?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC				TRIP PURPOSE				VEHICLE AVAILA BLE		
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDI CAL	SHOP PING	RECREA TION	YFS	NC
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Use crutches/walker/cane/etc.	68 1.	53 1.	7 1.	8 2.	15 1.	13 *	26 2.	7 1.	12 *	12 1.	11 3.	12 1.	9 2.	19 1.	47 1.
Deafness	58 1.	47 1.	6 1.	5 1.	13 1.	19 1.	10 1.	4 1.	20 1.	13 1.	5 1.	10 1.	8 2.	26 2.	25 1.
Health problem	42 1.	32 1.	4 1.	5 1.	18 1.	8 *	10 1.	1 *	6 *	3 *	5 1.	9 1.	5 1.	5 *	35 1.
Use wheelchair	31 *	25 *	3 *	3 1.	3 *	12 *	5 *	7 1.	9 *	10 1.	6 1.	4 *	5 1.	11 1.	16 *
Old age/Senior citizen/retired	4 *	4 *		1 *	1 *	1 *		3 1.		1 *	1 *	1 *		1 *	3 *
Other reason	101 2.	81 2.	11 2.	9 2.	25 2.	32 1.	18 1.	4 1.	33 1.	14 1.	13 3.	12 1.	10 2.	22 2.	68 1.
No response	6341 95.	5155 95.	689 96.	497 94.	1229 94.	2672 97.	1378 95.	456 95.	2912 97.	1129 96.	368 90.	763 94.	423 92.	1212 94.	4569 96.

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

## SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 10a If you used a handicapped cash fare, or a Handicapped Pass, which of the following qualified you to do so?

BREAK TWO	TOTAL	FARE TYPE						INCOME								
	SAMPLE	TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	408 100.	321 100.	331 100.	
Use crutches/walker/cane/etc.	68 1.	4 *	21 1.	6 *	13 1.	5 1.	68 20.	19 1.	22 2.	4 1.	6 1.	2 1.	2 *	2 1.	2 1.	
Deafness	58 1.	13 2.	14 1.	5 *	7 1.	6 1.	58 17.	19 1.	9 1.	5 1.	6 1.	2 1.	1 *	3 1.	4 1.	
Health problem	42 1.	2 *	2 *	1 *		2 *	42 12.	15 1.	9 1.	4 1.	2 *	1 *	1 *	2 1.	1 *	
Use wheelchair	31 *	2 *	9 *	3 *	12 1.	3 1.	31 9.	9 1.	3 *	3 *	2 *	4 1.	1 *		1 *	
Old age/Senior citizen/retired	4 *		1 *		1 *	3 1.	4 1.	2 *						1 *		
Other reason	101 2.	10 1.	20 1.	19 1.	7 1.	6 1.	101 30.	33 3.	22 2.	7 1.	3 1.	3 1.	6 1.	3 1.	3 1.	
No response	6341 95.	827 96.	2327 97.	1747 98.	965 96.	473 95.	35 10.	1218 93.	1036 94.	734 97.	551 97.	387 97.	437 98.	310 97.	320 97.	

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

## SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 10a. If you used a handicapped cash fare, or a Handicapped Pass, which of the following qualified you to do so?

BREAK THREE	TOTAL  -----AGE-----								---SEX---		FY	
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	FRESS	LCCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Use crutches/walker/cane/etc.	68 1.	11 2.	14 1.	10 1.	2 *	5 1.	5 2.	3 1.	24 1.	34 1.	6 1.	62 1.
Deafness	58 1.	6 1.	15 1.	9 1.	5 1.	2 *	5 2.	4 1.	13 1.	19 1.	6 1.	52 1.
Health problem	42 1.	1 *	3 *	7 *	9 1.	6 1.	13 4.	1 *	27 1.	17 1.	6 1.	35 1.
Use wheelchair	31 *	10 1.	10 1.	4 *	1 *	1 *			13 *	14 *	7 *	29 *
Old age/Senior citizen/retired	4 *			1 *				3 1.	2 *	1 *		4 *
Other reason	101 2.	8 1.	18 1.	23 1.	11 1.	14 3.	8 3.	4 1.	48 2.	43 1.	14 2.	87 1.
No response	6341 95.	662 95.	1580 96.	1502 97.	790 96.	399 93.	274 90.	347 96.	2763 95.	3077 96.	655 95.	5086 95.

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 11-13 How many motor vehicles (cars, trucks, vans) in working condition, are there in your household/How many licensed drivers are there in your household/Was a vehicle available today for you to use to make this trip?

BREAK ONE	TOTAL	TOTAL	TOTAL	ETHNIC				TRIP			PURPOSE			VEHICLE	
	SAMPLE	WEEK DAY	SATUR DAY	SUNDAY	WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	WFOI CAL	SHOP ING	RECREA TICN	YES	NO
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Number of motor vehicles in household															
None	971 15.	775 14.	116 16.	80 15.	293 22.	278 10.	278 19.	52 11.	409 14.	93 8.	72 18.	162 20.	86 19.	62 5.	664 18.
One	1844 28.	1562 29.	177 25.	105 20.	368 28.	784 28.	426 29.	140 29.	922 31.	351 30.	97 24.	193 24.	122 26.	806 30.	1335 28.
Two	1047 16.	882 16.	90 12.	75 14.	219 17.	414 15.	234 16.	117 24.	444 15.	298 25.	43 11.	122 15.	66 14.	329 22.	607 14.
Three	387 6.	327 6.	35 5.	25 5.	79 6.	141 5.	96 7.	41 9.	138 5.	129 11.	15 4.	35 4.	32 7.	130 10.	240 5.
Four or more	238 4.	190 4.	28 4.	20 4.	50 4.	87 3.	55 4.	21 4.	89 3.	78 7.	7 2.	27 3.	19 4.	84 6.	146 3.
No response	2158 32.	1662 31.	275 38.	222 42.	296 23.	1054 38.	358 25.	112 23.	990 33.	233 20.	173 43.	272 33.	137 30.	241 19.	1491 31.
Number of licensed drivers in household															
None	451 7.	353 7.	54 7.	44 8.	142 11.	160 6.	95 7.	25 5.	154 5.	44 4.	37 9.	99 12.	40 9.	34 3.	391 8.
One	1914 29.	1564 29.	219 30.	130 25.	392 30.	851 31.	425 29.	121 25.	919 31.	278 24.	118 29.	241 30.	134 29.	356 27.	1485 31.
Two	1619 24.	1363 25.	149 21.	106 20.	341 26.	598 22.	430 30.	145 30.	766 26.	382 32.	82 20.	145 18.	111 24.	418 32.	1161 24.
Three	732 11.	619 11.	69 10.	44 8.	143 11.	275 10.	185 13.	60 12.	329 11.	183 15.	28 7.	76 9.	46 10.	203 16.	503 11.
Four or more	433 7.	359 7.	42 6.	32 6.	71 5.	145 5.	138 10.	37 8.	180 6.	125 11.	11 3.	50 6.	35 8.	113 9.	303 6.
No response	1497 23.	1138 21.	188 26.	171 32.	214 16.	727 26.	175 12.	94 20.	644 22.	171 14.	130 32.	200 25.	95 21.	172 13.	920 19.
Was a vehicle available today for you to use to make this trip															
Yes, as driver	609 9.	525 10.	49 7.	35 7.	186 14.	164 6.	159 11.	56 12.	325 11.	91 8.	14 3.	61 8.	55 12.	609 47.	
Yes, as passenger	686 10.	561 10.	75 10.	50 9.	114 9.	283 10.	130 9.	98 20.	294 10.	175 15.	36 9.	72 9.	41 9.	686 53.	
No	4763 72.	3866 72.	515 71.	382 72.	951 73.	2105 76.	1112 77.	303 63.	2125 71.	834 71.	312 77.	607 75.	332 72.		4763 100.
No response	577 9.	437 8.	81 11.	60 11.	50 4.	204 7.	45 3.	25 5.	242 8.	78 7.	44 11.	72 9.	31 7.		

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 11-13 How many motor vehicles (cars, trucks, vans) in working condition, are there in your household/How many licensed drivers are there in your household/Was a vehicle available today for you to use to make this trip?

BREAK TWO	TOTAL SAMPLE	FARE TYPE						INCOME								
		TRANS PER	CASH	MONTH PASS	STUD COLL.	SENIOR PASS	HAND. PASS.	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.	
Number of motor vehicles in household																
None	971 15.	121 14.	325 14.	297 17.	98 10.	109 22.	71 21.	265 20.	224 20.	146 19.	96 17.	51 13.	39 9.	15 4.	10 3.	
One	1844 28.	235 27.	720 30.	471 26.	308 31.	111 22.	75 22.	262 20.	305 28.	247 33.	192 34.	157 39.	171 38.	114 36.	63 19.	
Two	1047 16.	154 18.	437 18.	212 12.	230 23.	34 7.	33 10.	108 8.	100 9.	86 11.	112 20.	92 23.	127 28.	107 33.	104 31.	
Three	387 6.	51 6.	137 6.	76 4.	104 10.	7 1.	18 5.	35 3.	32 3.	25 3.	26 5.	20 5.	10 10.	44 14.	71 21.	
Four or more	238 4.	34 4.	87 4.	44 2.	65 6.	8 2.	18 5.	21 2.	23 2.	13 2.	14 2.	15 4.	14 3.	18 6.	59 18.	
No response	2158 32.	262 31.	688 29.	682 38.	202 20.	230 46.	125 37.	625 48.	416 38.	239 32.	130 23.	61 15.	53 12.	24 7.	23 7.	
Number of licensed drivers in household																
None	451 7.	48 6.	114 5.	138 8.	50 5.	84 17.	47 14.	163 12.	94 9.	56 7.	32 6.	15 4.	14 3.	6 2.	5 2.	
One	1914 29.	248 29.	704 29.	576 32.	251 25.	128 26.	88 25.	390 30.	391 36.	300 40.	194 34.	129 32.	117 26.	67 21.	35 11.	
Two	1619 24.	216 25.	646 27.	374 21.	313 31.	69 14.	60 18.	195 15.	207 19.	187 25.	180 32.	137 34.	168 38.	125 39.	114 34.	
Three	732 11.	106 12.	302 13.	174 10.	139 14.	15 3.	31 9.	75 6.	88 8.	57 8.	77 14.	54 14.	80 18.	64 21.	94 28.	
Four or more	433 7.	69 8.	163 7.	94 5.	91 9.	11 2.	24 7.	47 4.	40 4.	30 4.	29 5.	30 8.	35 8.	44 14.	62 19.	
No response	1497 23.	170 20.	465 19.	425 24.	162 16.	191 38.	94 28.	446 34.	281 26.	128 17.	57 10.	33 8.	32 7.	11 3.	21 6.	
Was a vehicle available today for you to use to make this trip																
Yes, as driver	609 9.	63 7.	227 9.	180 10.	67 7.	57 11.	35 10.	45 3.	57 5.	68 9.	78 14.	64 16.	75 17.	60 19.	60 28.	
Yes, as passenger	686 10.	89 10.	240 10.	154 9.	161 16.	44 9.	51 15.	130 10.	102 9.	79 10.	60 11.	41 11.	34 8.	39 12.	46 14.	
No	4763 72.	644 75.	1756 73.	1285 72.	715 71.	335 67.	222 65.	1030 78.	881 80.	572 75.	409 72.	283 71.	330 74.	214 66.	201 61.	
No response	577 9.	61 7.	169 7.	153 9.	62 6.	62 12.	24 8.	107 8.	59 5.	36 5.	22 4.	9 2.	7 2.	3 1.	4 1.	

FREQUENCIES IN 1000's



## SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 11-13 How many motor vehicles (cars, trucks, vans) in working condition, are there in your household/How many licensed drivers are there in your household/Was a vehicle available today for you to use to make this trip?

BREAK THREE	TOTAL (-----AGE-----)								SEX			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LCCPL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Number of motor vehicles in household												
None	971 15.	36 5.	201 12.	286 16.	149 18.	76 18.	63 21.	93 26.	426 15.	484 15.	90 13.	881 15.
One	1844 28.	192 28.	487 30.	473 30.	224 27.	113 26.	81 26.	77 21.	764 26.	971 30.	195 28.	1648 28.
Two	1047 16.	190 27.	346 21.	190 12.	100 12.	57 13.	33 11.	21 6.	511 18.	482 15.	140 20.	908 15.
Three	387 6.	95 14.	127 8.	67 4.	25 3.	17 4.	17 6.	5 1.	200 7.	165 5.	59 9.	328 6.
Four or more	238 4.	68 10.	69 4.	43 3.	14 2.	8 2.	4 1.	6 2.	124 4.	95 3.	31 4.	207 3.
No response	2158 32.	116 17.	410 25.	537 35.	307 37.	157 37.	108 35.	160 44.	879 30.	1008 31.	174 25.	1984 33.
Number of licensed drivers in household												
None	451 7.	21 3.	80 5.	90 6.	50 7.	38 9.	84 14.	69 19.	170 6.	254 8.	38 6.	413 7.
One	1914 29.	159 23.	453 28.	486 31.	279 34.	144 34.	89 29.	101 28.	789 27.	1003 31.	189 27.	1725 29.
Two	1619 24.	243 35.	418 25.	413 27.	198 24.	79 19.	47 15.	45 12.	786 27.	737 23.	203 29.	1416 24.
Three	732 11.	116 17.	257 16.	142 9.	59 7.	49 11.	32 10.	10 3.	357 12.	332 10.	96 14.	636 11.
Four or more	433 7.	71 10.	159 10.	103 7.	21 3.	18 4.	10 3.	7 2.	237 8.	168 5.	51 7.	382 6.
No response	1497 23.	88 13.	274 17.	322 21.	201 25.	100 23.	84 27.	131 36.	566 19.	710 22.	112 16.	1385 23.
Was a vehicle available today for you to use to make this trip												
Yes, as driver	609 9.	37 5.	109 7.	166 11.	103 13.	50 12.	34 11.	39 11.	342 12.	234 7.	114 17.	456 8.
Yes, as passenger	686 10.	126 18.	175 11.	129 8.	73 9.	41 10.	33 11.	25 7.	283 10.	345 11.	74 11.	613 10.
No	4763 72.	493 71.	1258 77.	1152 74.	582 71.	302 71.	217 71.	247 68.	2081 72.	2368 74.	456 66.	4307 72.
No response	577 9.	42 6.	97 6.	107 7.	60 7.	35 8.	21 7.	51 14.	194 7.	251 8.	44 6.	533 9.

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Question 14 To which ethnic group do you belong?

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC			TRIP		PURPOSE			VEHICLE		
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MEDI CAL	SHOP PING	RECREA TION	AVAILA BLE	TYPE
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Hispanic/Latino	2757 41.	2215 41.	303 42.	239 45.		2757 100.			1401 47.	493 37.	185 45.	292 36.	135 29.	447 34.	2105 48.
Black	1447 22.	1169 22.	170 24.	109 21.			1447 100.		607 20.	279 24.	79 19.	172 21.	113 25.	289 22.	1112 23.
White/Caucasian	1303 20.	1083 20.	136 19.	85 16.	1303 100.				536 18.	183 15.	77 19.	214 26.	136 30.	300 23.	951 20.
Asian/Pacific Islander	482 7.	407 8.	35 5.	40 8.				482 100.	203 7.	152 13.	20 5.	56 7.	24 5.	154 12.	303 6.
American Indian/Aleut	104 2.	87 2.	10 1.	7 1.					36 1.	25 2.	5 1.	18 2.	15 3.	16 1.	82 2.
Other	142 2.	119 2.	14 2.	9 2.					52 2.	40 3.	6 1.	13 2.	14 3.	37 3.	98 2.
No response	409 6.	318 6.	52 7.	40 8.					155 5.	61 5.	35 9.	47 6.	25 5.	52 6.	112 2.

FREQUENCIES IN 1000's

## SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 15+16 What is the total number of persons living in your household/How many are employed?

BREAK ONE	TOTAL	TOTAL	TOTAL	TOTAL	ETHNIC				TRIP PURPOSE			VEHICLE				
	SAMPLE	WEEK DAY	SATUR DAY	SUNDAY	WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	WFLI CAI	SHOP ING	RECREA TICK	AVAILA YES	TYPE AC	
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	402 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.	
Number of people living in household																
One	707 11.	558 10.	84 12.	65 12.	354 27.	101 4.	165 11.	34 7.	279 9.	35 3.	62 15.	139 17.	77 17.	108 8.	555 12.	
Two	1083 16.	893 17.	109 15.	81 15.	355 27.	302 11.	270 19.	84 17.	527 18.	127 11.	69 17.	145 18.	76 16.	237 18.	803 17.	
Three	1008 15.	833 15.	108 15.	68 13.	269 16.	415 15.	258 18.	69 14.	529 18.	171 14.	52 13.	90 11.	64 14.	193 15.	759 16.	
Four	1091 16.	909 17.	109 15.	73 14.	156 12.	545 20.	249 17.	83 17.	520 17.	237 20.	51 13.	127 16.	58 13.	224 17.	820 17.	
Five	804 12.	662 12.	83 12.	58 11.	77 6.	449 16.	159 11.	68 14.	332 11.	194 16.	43 11.	94 12.	88 10.	161 12.	595 12.	
Six	521 8.	419 8.	53 7.	40 9.	37 3.	307 11.	110 8.	40 8.	232 8.	121 10.	32 8.	64 8.	30 7.	86 7.	409 9.	
Seven	260 4.	206 4.	29 4.	24 5.	17 1.	167 6.	42 3.	22 5.	110 4.	69 6.	14 4.	26 3.	13 3.	53 4.	195 4.	
Eight	179 3.	136 3.	22 3.	21 4.	17 1.	117 4.	24 2.	11 2.	68 2.	52 4.	8 2.	16 2.	14 1.	29 2.	140 3.	
Nine or more	208 3.	169 3.	23 3.	15 3.	15 1.	138 5.	25 2.	14 3.	87 3.	45 4.	17 4.	17 2.	16 3.	48 4.	148 3.	
No response	783 12.	610 11.	100 14.	73 14.	68 5.	218 8.	146 10.	56 12.	304 10.	131 11.	54 13.	94 12.	65 14.	156 12.	327 7.	
Number of people employed in household																
One	1452 22.	1195 22.	156 22.	101 19.	368 28.	506 18.	389 27.	91 19.	673 23.	245 21.	86 21.	192 24.	115 25.	264 20.	1117 23.	
Two	1861 28.	1547 29.	184 26.	129 24.	355 27.	854 31.	404 28.	142 29.	992 33.	367 31.	84 21.	172 21.	103 22.	405 31.	1369 29.	
Three	888 13.	719 13.	93 13.	76 14.	115 9.	485 18.	163 11.	63 13.	476 16.	171 14.	25 6.	83 10.	57 12.	180 14.	669 14.	
Four or more	665 10.	524 10.	81 11.	60 11.	71 5.	377 14.	107 7.	69 14.	346 12.	129 11.	28 7.	67 8.	36 8.	144 11.	485 10.	
No response	1509 23.	1190 22.	178 25.	141 27.	281 22.	488 18.	309 21.	101 21.	491 16.	236 20.	149 37.	226 28.	118 28.	270 21.	894 19.	

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 15+16 What is the total number of persons living in your household/how many are employed?

BREAK TWO	TOTAL	FARE TYPE						INCOME								
	SAMPLE	TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+	
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.	
Number of people living in household																
One	707 11.	71 8.	160 7.	225 13.	32 3.	177 35.	71 21.	180 14.	161 15.	111 15.	79 14.	45 11.	34 8.	13 4.	9 3.	
Two	1083 16.	129 15.	377 16.	326 18.	103 10.	132 26.	54 16.	185 14.	193 17.	132 17.	109 19.	98 25.	100 22.	74 23.	46 14.	
Three	1008 15.	132 15.	390 16.	292 16.	140 14.	44 9.	36 11.	177 13.	181 16.	117 15.	107 19.	63 16.	74 17.	56 17.	73 22.	
Four	1091 16.	168 20.	429 18.	300 17.	190 19.	27 5.	29 9.	209 16.	174 16.	134 18.	95 17.	65 16.	82 18.	65 20.	73 22.	
Five	804 12.	104 12.	320 13.	197 11.	174 17.	22 4.	19 6.	157 12.	133 12.	97 13.	67 12.	45 11.	51 11.	42 13.	45 14.	
Six	521 8.	62 7.	204 9.	126 7.	119 12.	12 2.	22 6.	107 8.	74 9.	56 7.	28 5.	29 7.	46 10.	24 7.	25 9.	
Seven	260 4.	39 5.	110 5.	48 3.	65 6.	4 1.	11 3.	65 5.	32 3.	28 4.	26 5.	14 4.	18 4.	13 4.	8 2.	
Eight	179 3.	26 3.	79 3.	39 2.	34 3.	4 1.	6 2.	45 3.	25 2.	24 3.	9 1.	8 2.	11 2.	9 3.	8 2.	
Nine or more	208 3.	24 3.	85 4.	49 3.	45 4.	5 1.	17 5.	49 4.	36 3.	9 1.	19 3.	14 4.	15 3.	7 2.	11 3.	
No response	783 12.	103 12.	240 10.	181 10.	103 10.	72 14.	73 21.	140 11.	69 6.	49 6.	33 6.	16 4.	18 4.	18 6.	29 9.	
Number of people employed in household																
One	1452 22.	181 21.	513 21.	452 25.	209 21.	90 18.	71 21.	302 23.	298 27.	237 31.	166 29.	97 24.	51 20.	39 12.	31 9.	
Two	1861 28.	245 29.	745 31.	522 29.	297 30.	69 14.	53 16.	289 22.	297 27.	237 31.	189 33.	150 38.	166 37.	133 41.	103 31.	
Three	888 13.	132 15.	351 15.	256 14.	144 14.	15 3.	28 8.	151 11.	125 11.	81 11.	85 15.	56 14.	80 18.	65 20.	83 25.	
Four or more	665 10.	94 11.	277 12.	160 9.	126 13.	13 3.	26 8.	131 10.	87 8.	53 7.	34 6.	44 11.	54 12.	52 16.	66 20.	
No response	1509 23.	176 21.	447 19.	350 20.	200 20.	226 45.	123 36.	337 26.	226 21.	127 17.	183 15.	41 10.	57 13.	30 9.	43 13.	

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 14 To which ethnic group do you belong?

	BREAK TWO	TOTAL SAMPLE	FARE TYPE					INCOME								
			TRANS PER	CASH	MONTH PASS	STUD COIL	SENIOR PASS	HAND PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+
Total		6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	399 100.	448 100.	321 100.	331 100.
Hispanic/Latino		2757 41.	352 41.	1105 46.	794 45.	425 42.	121 24.	95 28.	743 57.	572 52.	334 44.	201 35.	133 33.	118 26.	69 21.	65 20.
Black		1447 22.	225 26.	514 21.	393 22.	233 23.	57 11.	82 24.	738 18.	227 21.	157 21.	162 28.	108 26.	122 27.	91 28.	91 27.
White/Caucasian		1303 20.	151 18.	454 19.	316 18.	119 12.	211 42.	81 24.	184 14.	190 17.	150 20.	126 22.	102 26.	134 30.	108 34.	124 37.
Asian/Pacific Islander		482 7.	51 6.	121 5.	127 7.	133 13.	57 11.	26 8.	64 5.	52 5.	66 9.	56 10.	38 10.	49 11.	40 12.	30 9.
American Indian/Aleut		104 2.	13 2.	44 2.	23 1.	19 2.	7 1.	11 3.	31 2.	12 1.	10 1.	7 1.	4 1.	7 2.	2 1.	8 2.
Other		142 2.	23 3.	46 2.	28 2.	29 3.	10 2.	19 6.	13 1.	26 2.	19 3.	11 2.	7 2.	10 2.	7 2.	10 3.
No response		409 6.	43 5.	110 5.	101 6.	47 5.	35 7.	25 7.	43 3.	23 2.	22 3.	7 1.	11 3.	8 2.	4 1.	3 1.

FREQUENCIES IN 1000's

Question 14 To which ethnic group do you belong?

BREAK THREE	TOTAL SAMPLE	AGE							SEX			
		LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LCCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	817 100.	427 100.	306 100.	363 100.	2965 100.	3205 100.	689 100.	5957 100.
Hispanic/Latino	2757 41.	254 36.	818 50.	730 47.	336 41.	153 38.	90 29.	70 19.	1215 42.	1316 41.	239 35.	2519 42.
Black	1447 22.	175 25.	340 21.	380 24.	183 22.	78 18.	54 18.	43 12.	601 21.	753 23.	115 17.	1332 22.
White/Caucasian	1303 20.	123 18.	233 14.	238 15.	172 21.	119 28.	97 32.	182 50.	617 21.	617 19.	211 31.	1092 18.
Asian/Pacific Islander	482 7.	57 8.	118 7.	105 7.	59 7.	27 6.	35 11.	34 9.	211 6.	211 7.	69 10.	413 7.
American Indian/Aleut	104 2.	23 3.	28 2.	12 1.	12 1.	5 1.	9 3.	2 1.	56 2.	40 1.	9 1.	95 2.
Other	142 2.	27 4.	32 2.	28 2.	12 1.	8 2.	5 2.	6 2.	55 2.	75 2.	14 2.	129 2.
No response	409 6.	39 6.	72 4.	62 4.	45 5.	28 7.	16 5.	26 7.	129 4.	172 5.	31 4.	378 6.

FREQUENCIES IN 1000's

## SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 15+16 What is the total number of persons living in your household/total  
many are employed?

BREAK THREE	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LOCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	819 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Number of people living in household												
One	707 11.	3 *	56 3.	154 10.	98 12.	72 17.	84 27.	154 42.	340 12.	319 10.	81 12.	627 11.
Two	1083 16.	44 6.	215 13.	290 19.	143 17.	92 22.	74 24.	99 27.	463 16.	549 17.	112 16.	972 16.
Three	1008 15.	100 14.	277 17.	272 17.	142 17.	56 13.	39 13.	25 7.	419 14.	532 17.	122 18.	887 15.
Four	1091 16.	143 20.	319 19.	280 18.	139 17.	65 15.	32 10.	18 5.	477 16.	553 17.	124 18.	967 16.
Five	804 12.	133 19.	220 13.	179 12.	114 14.	49 11.	15 5.	9 2.	355 12.	396 12.	81 12.	723 12.
Six	521 8.	88 13.	181 11.	112 7.	56 7.	18 4.	12 4.	9 2.	243 8.	250 8.	42 6.	478 8.
Seven	260 4.	58 8.	87 5.	52 3.	24 3.	10 2.	2 1.	2 1.	121 4.	122 4.	27 4.	233 4.
Eight	179 3.	33 5.	59 4.	38 2.	13 2.	8 2.	8 1.	1 *	78 3.	89 3.	18 3.	161 3.
Nine or more	208 3.	33 5.	83 5.	42 3.	13 2.	8 2.	3 1.	6 2.	94 3.	98 3.	19 3.	188 3.
No response	783 12.	62 9.	142 9.	136 9.	78 10.	50 12.	40 13.	39 11.	314 11.	298 9.	62 9.	720 12.
Number of people employed in household												
One	1452 22.	131 19.	241 15.	409 26.	247 30.	130 30.	99 32.	53 15.	629 22.	730 23.	151 22.	1302 22.
Two	1861 28.	219 31.	494 30.	505 32.	246 30.	109 25.	58 19.	39 11.	795 27.	953 30.	211 31.	1649 28.
Three	888 13.	125 18.	336 20.	200 13.	74 9.	46 11.	23 8.	6 2.	437 15.	399 12.	97 14.	791 13.
Four or more	665 10.	78 11.	268 16.	151 10.	49 6.	24 6.	13 4.	8 2.	335 12.	290 9.	71 10.	554 10.
No response	1509 23.	130 19.	261 16.	263 17.	169 21.	98 23.	88 29.	183 50.	606 21.	685 21.	132 19.	1377 23.

FREQUENCIES IN 1000's

(\*= PERCENT LESS THAN .5)

SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 17 What is the total yearly income of your household?

BREAK ONE	TOTAL	ICIAL	TOTAL	TOTAL	ETHNIC			TRIP			RECREATION			VEHICLE	
	SAMPLE	WEEK DAY	SATUR DAY	SUNDAY	WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	WEEK CAL	SCHOOL INC	RECREATION	AVAILABLE YES	AVAILABLE NO
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	467 100.	812 100.	461 100.	1256 100.	4763 100.
1. Less than \$5,000	1315 20.	1041 19.	149 21.	126 24.	184 14.	743 27.	238 16.	64 13.	530 18.	185 16.	111 27.	169 21.	100 22.	176 14.	1030 22.
2. \$5,000-\$9,999	1101 17.	886 16.	127 18.	88 17.	190 15.	572 21.	227 16.	52 11.	491 16.	174 15.	79 19.	158 19.	70 15.	159 12.	881 18.
3. \$10,000-\$14,999	758 11.	613 11.	84 12.	60 11.	150 12.	334 12.	157 11.	66 14.	391 13.	108 9.	45 11.	91 11.	47 10.	147 11.	572 12.
4. \$15,000-\$19,999	569 9.	481 9.	56 8.	33 6.	126 10.	201 7.	162 11.	56 12.	288 10.	99 8.	28 7.	54 7.	35 8.	137 11.	409 9.
5. \$20,000-\$24,999	398 6.	331 6.	41 6.	27 5.	102 8.	133 5.	104 7.	38 8.	204 7.	65 5.	24 6.	45 6.	27 6.	106 8.	283 6.
6. \$25,000-\$34,999	448 7.	376 7.	41 6.	32 6.	134 10.	118 4.	122 8.	49 10.	240 8.	86 7.	16 4.	56 7.	34 7.	110 7.	330 7.
7. \$35,000-\$49,999	321 5.	274 5.	26 4.	22 4.	108 8.	69 3.	91 6.	40 8.	169 6.	64 5.	10 2.	36 4.	19 4.	99 8.	218 5.
8. \$50,000-\$74,999	192 3.	172 3.	13 2.	8 2.	74 6.	36 1.	58 4.	16 3.	100 3.	40 3.	8 2.	14 2.	16 3.	75 6.	114 2.
9. \$75,000 or more	139 2.	118 2.	11 2.	10 2.	50 4.	29 1.	34 2.	14 3.	52 2.	49 4.	2 4.	12 1.	15 3.	50 4.	87 2.
No response	1404 21.	1107 21.	175 24.	122 23.	185 14.	522 19.	256 18.	87 18.	526 18.	309 26.	85 21.	172 21.	97 21.	236 18.	838 18.
Average	3.39	3.46	3.13	3.08	4.14	2.73	3.75	4.07	3.55	3.79	2.74	3.17	3.46	4.17	3.25

FREQUENCIES IN 1000's

(\* = PERCENT LESS THAN .5)



SOUTHERN CALIFORNIA TRANSPORTATION

(MAY/JUNE, 1986)

Question 17 What is the total yearly income of your household?

BREAK TWO	TOTAL SAMPLE	FARE TYPE						INCOME							
		TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000-9999	10K-14999	15K-19999	20K-24999	25K-34999	35K-49999	50K+
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.
1. Less than \$5,000	1315 20.	169 20.	495 21.	356 20.	170 17.	108 22.	110 32.	1315 100.							
2. \$5,000-\$9,999	1101 17.	122 14.	412 17.	297 16.	152 15.	118 23.	72 21.	1101 100.							
3. \$10,000-\$14,999	758 11.	102 12.	250 10.	239 13.	105 10.	59 12.	25 7.			758 100.					
4. \$15,000-\$19,999	569 9.	73 9.	196 8.	186 10.	79 8.	36 7.	19 6.				569 100.				
5. \$20,000-\$24,999	398 6.	45 5.	151 6.	129 7.	62 6.	23 5.	12 4.					398 100.			
6. \$25,000-\$34,999	448 7.	76 9.	158 7.	125 7.	61 6.	26 5.	11 3.						448 100.		
7. \$35,000-\$49,999	321 5.	44 5.	130 5.	86 5.	44 4.	13 3.	12 4.							321 100.	
8. \$50,000-\$74,999	192 3.	30 4.	88 4.	44 2.	26 3.	4 1.	4 1.								192 58.
9. \$75,000 or more	139 2.	22 3.	52 2.	19 1.	35 3.	9 2.	7 2.								139 42.
No response	1404 21.	175 20.	462 19.	313 19.	273 27.	106 21.	67 20.								
Average	3.39	3.57	3.44	3.32	3.56	2.89	2.61	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.42

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)  
 Question 17 What is the total yearly income of your household?

	TOTAL  -----AGE-----								---SEX---			
	SAMPLE	LT 10	10-24	25-34	35-44	45-54	55-64	65+	MALE	FFEMALE	FX PRESS	LOCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	919 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
1. Less than \$5,000	1315 20.	107 15.	353 22.	322 21.	161 20.	90 21.	55 18.	75 21.	520 18.	686 21.	105 15.	1210 20.
2. \$5,000-\$9,999	1101 17.	65 9.	263 16.	283 18.	148 18.	70 16.	51 17.	94 26.	469 16.	555 17.	95 14.	1006 17.
3. \$10,000-\$14,999	758 11.	50 7.	171 10.	202 13.	117 14.	49 11.	40 13.	52 14.	362 12.	351 11.	73 11.	685 11.
4. \$15,000-\$19,999	569 9.	36 5.	140 9.	161 10.	77 9.	45 11.	26 8.	31 9.	266 9.	273 9.	59 9.	511 9.
5. \$20,000-\$24,999	398 6.	36 5.	94 6.	108 7.	50 6.	32 7.	26 8.	12 3.	187 6.	189 6.	88 7.	350 6.
6. \$25,000-\$34,999	448 7.	42 6.	127 8.	101 6.	59 7.	31 7.	24 8.	16 4.	239 8.	183 6.	10. 10.	377 6.
7. \$35,000-\$49,999	321 5.	38 5.	70 4.	81 5.	45 5.	24 6.	21 7.	12 3.	173 6.	131 4.	56 8.	265 4.
8. \$50,000-\$74,999	192 3.	26 4.	46 3.	38 2.	35 4.	17 4.	8 3.	4 1.	114 4.	70 2.	39 6.	153 3.
9. \$75,000 or more	139 2.	47 7.	32 2.	20 1.	10 1.	6 1.	6 2.	3 1.	86 3.	43 1.	19 3.	120 2.
No response	1404 21.	251 36.	395 21.	240 15.	117 14.	64 15.	49 16.	63 17.	489 17.	723 23.	123 18.	1280 21.
Average	3.39	4.16	3.34	3.29	3.43	3.46	3.58	2.82	3.67	3.16	4.05	3.31

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Questionnaire version/Time of Day/Day of Week

BREAK ONE	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	ETHNIC			TRIP PURPOSE			VEHICLE				
					WHITE	HIS PANIC	BLACK	ASIAN	WORK	SCHOOL	MECI CAL	SHCP INC	RECREA TICN	AVAILABLE YES	UNAVAIL NC
Total	6646 100.	5398 100.	721 100.	527 100.	1303 100.	2757 100.	1447 100.	482 100.	2991 100.	1182 100.	407 100.	812 100.	461 100.	1296 100.	4763 100.
Questionnaire version															
1. English	4817 72.	3990 74.	486 67.	341 65.	1260 97.	1169 42.	1438 99.	470 98.	1971 66.	1056 89.	268 66.	606 75.	397 86.	1055 81.	3448 72.
2. Spanish	1829 28.	1408 26.	235 33.	186 35.	43 3.	1588 58.	9 1.	12 2.	1020 34.	127 11.	140 34.	205 25.	65 14.	241 19.	1315 28.
Day of Week															
Weekday	5398 81.	5398 100.			1083 83.	2215 80.	1169 81.	407 88.	2578 86.	1136 96.	371 91.	527 65.	264 57.	1086 84.	3866 81.
Saturday	721 11.		721 100.		136 18.	303 11.	170 12.	35 7.	259 9.	34 3.	27 7.	179 22.	94 20.	124 10.	515 11.
Sunday	527 8.			527 100.	85 7.	239 9.	109 8.	40 8.	154 5.	13 1.	9 2.	106 13.	104 23.	85 7.	382 8.

FREQUENCIES IN 1000's

SOUTHERN CALIFORNIA TRANSPORTATION (MAY/JUNE, 1986)

Questionnaire version/Time of Day/Day of Week

BREAK TWO

	TOTAL SAMPLE	FARE TYPE						INCOME								
		TRANS FER	CASH	MONTHLY PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 29999	30K- 34999	35K- 39999	40K+
Total	6646 100.	857 100.	2394 100.	1702 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	398 100.	448 100.	321 100.	331 100.	
Questionnaire version																
1. English	4817 72.	634 74.	1557 65.	1206 68.	889 88.	399 80.	287 84.	735 56.	707 64.	570 75.	469 82.	351 88.	413 92.	298 91.	317 96.	
2. Spanish	1829 28.	223 26.	837 35.	576 32.	117 12.	99 20.	53 16.	581 44.	394 36.	188 25.	100 18.	47 12.	35 8.	24 7.	14 5.	
Day of Week																
Weekday	5398 81.	682 80.	1925 80.	1456 82.	849 84.	399 80.	269 79.	1041 79.	886 80.	613 81.	481 85.	331 83.	376 84.	274 85.	290 88.	
Saturday	721 11.	96 11.	261 11.	198 11.	92 9.	59 12.	37 11.	149 11.	127 12.	84 11.	56 10.	41 10.	41 9.	26 8.	23 7.	
Sunday	527 8.	80 9.	208 9.	127 7.	66 7.	40 8.	34 10.	126 10.	88 8.	60 8.	33 6.	27 7.	32 7.	22 7.	18 5.	

FREQUENCIES IN 1000's

Questionnaire version/Time of Day/Day of Week

BREAK THREE

TOTAL |-----AGE-----|

|---SEX---|

SAMPLE LT 18 18-24 25-34 35-44 45-54 55-64 65+

MALE FEMALE EX PRESS LOCAL

	LT	18	18-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	EX PRESS	LOCAL
Total	6646	698	1640	1556	819	427	306	363	2905	3205	689	5957
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Questionnaire version												
1. English	4817	638	1171	1003	519	299	241	314	2129	2363	538	4279
	72.	91.	71.	64.	63.	70.	79.	87.	73.	74.	78.	72.
2. Spanish	1829	60	470	552	299	129	64	48	776	842	150	1678
	28.	9.	29.	35.	37.	30.	21.	13.	27.	26.	22.	28.
Day of Week												
Weekday	5398	570	1337	1265	669	356	251	296	2346	2646	605	4793
	81.	82.	82.	81.	82.	83.	82.	82.	81.	83.	88.	80.
Saturday	721	77	164	165	90	44	27	38	309	327	45	676
	11.	11.	10.	11.	11.	10.	9.	10.	11.	10.	7.	11.
Sunday	527	50	139	126	60	27	27	28	250	231	39	488
	8.	7.	8.	8.	7.	6.	9.	8.	9.	7.	6.	8.

FREQUENCIES IN 1000's

BREAK ONE	Strata													VEHICLE	
	TOTAL SAMPLE	TOTAL WEEK DAY	TOTAL SATUR DAY	TOTAL SUNDAY	WHITE	ETHNIC PANIC	BLACK	ASIAN	WORK	SCHOOL	TRIP PURPOSE CAL	SHOP ING	RECREA TICN	AVAILABLE YES	NC
Total	6646	5398	721	527	1303	2757	1447	482	2991	1182	407	812	461	1296	4763
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Strata															
1. Local1	4233	3537	358	337	671	1852	1005	296	1925	715	280	519	277	780	3084
	64.	66.	50.	64.	51.	67.	69.	61.	64.	60.	69.	64.	60.	60.	65.
2. Local2	1416	1041	242	132	343	547	267	99	596	260	80	206	108	278	997
	21.	19.	34.	25.	26.	20.	18.	21.	20.	22.	20.	25.	23.	21.	21.
3. Local3	309	214	75	17	79	119	60	18	120	72	19	38	23	51	231
	5.	4.	10.	4.	6.	4.	4.	4.	4.	6.	5.	5.	5.	4.	5.
4. Express	689	605	45	39	211	239	115	69	350	137	28	50	54	187	456
	10.	11.	6.	7.	16.	9.	8.	14.	12.	12.	7.	6.	12.	14.	10.
Density															
Light (less than 50/hour)	634	634			191	220	114	58	329	151	26	41	39	157	438
	10.	12.			15.	8.	8.	12.	11.	13.	6.	5.	6.	12.	9.
Medium (50-99/hour)	3894	2646	721	527	838	1585	806	293	1711	636	199	543	307	740	2799
	59.	49.	100.	100.	64.	57.	56.	61.	57.	54.	49.	67.	67.	57.	59.
Heavy (100+/hour)	2117	2117			274	952	527	110	951	395	182	229	115	399	1525
	32.	39.			21.	35.	36.	27.	32.	33.	45.	28.	25.	31.	32.

FREQUENCIES IN 1000's

Strata

	TOTAL SAMPLE	FARE TYPE					INCOME									
		TRANS FER	CASH	MONTH PASS	STUD COLL	SENIOR PASS	HAND. PASS	LT 5000	5000- 9999	10K- 14999	15K- 19999	20K- 24999	25K- 34999	35K- 49999	50K+	
BREAK TWO																
Total	6646 100.	857 100.	2394 100.	1782 100.	1006 100.	499 100.	340 100.	1315 100.	1101 100.	758 100.	569 100.	399 100.	448 100.	321 100.	331 100.	
Strata																
1. Local1	4233 64.	542 63.	1474 62.	1204 68.	630 63.	317 64.	193 57.	899 68.	743 67.	497 66.	374 66.	233 59.	265 59.	182 57.	175 53.	
2. Local2	1416 21.	180 21.	521 22.	341 19.	221 22.	112 22.	93 27.	257 20.	221 20.	155 20.	112 20.	98 25.	89 20.	66 21.	81 24.	
3. Local3	309 5.	42 5.	116 5.	65 4.	60 6.	20 4.	17 5.	54 4.	42 4.	34 4.	25 4.	19 5.	23 5.	18 6.	17 5.	
4. Express	689 10.	94 11.	283 12.	173 10.	96 10.	50 10.	37 11.	105 8.	95 9.	73 10.	59 10.	48 12.	71 16.	56 17.	58 18.	
Density																
Light (less than 50/hour)	634 10.	79 9.	262 11.	151 8.	96 10.	36 7.	31 9.	93 7.	84 8.	60 8.	52 9.	46 12.	60 13.	55 17.	55 18.	
Medium (50-99/hour)	3894 59.	506 59.	1450 61.	1000 56.	579 58.	288 58.	213 63.	761 58.	643 58.	442 58.	321 56.	242 61.	275 61.	189 59.	192 58.	
Heavy (100+/hour)	2117 32.	272 32.	682 28.	631 35.	332 33.	174 35.	96 28.	461 35.	373 34.	255 34.	196 34.	110 28.	112 28.	77 24.	81 24.	

FREQUENCIES IN 1000's

BREAK THREE	Strata								SEX			
	TOTAL SAMPLE	LT 10	10-24	25-34	35-44	45-54	55-64	65+	MALE	FEMALE	FX PRESS	LCCAL
Total	6646 100.	698 100.	1640 100.	1556 100.	817 100.	427 100.	306 100.	363 100.	2905 100.	3205 100.	689 100.	5957 100.
Strata												
1. Local1	4233 64.	390 56.	1055 64.	1017 65.	516 63.	269 63.	203 66.	242 67.	1850 64.	2033 63.		4233 71.
2. Local2	1416 21.	185 27.	340 21.	298 19.	177 22.	94 22.	61 20.	67 18.	600 21.	690 22.		1416 24.
3. Local3	309 5.	59 8.	74 5.	60 4.	32 4.	18 4.	12 4.	15 4.	129 4.	157 5.		309 5.
4. Express	689 10.	64 9.	171 10.	181 12.	94 11.	46 11.	30 10.	38 10.	326 11.	324 10.	689 100.	
Density												
Light (less than 50/hour)	634 10.	88 13.	151 9.	149 10.	85 10.	39 9.	29 9.	27 7.	293 10.	305 10.	420 61.	214 4.
Medium (50-99/hour)	3874 59.	401 57.	965 59.	914 59.	507 62.	244 57.	186 61.	202 56.	1742 60.	1830 57.	262 38.	3632 61.
Heavy (100+/hour)	2117 32.	209 30.	525 32.	493 32.	227 28.	144 34.	91 30.	134 37.	870 30.	1070 33.	6 1.	2111 35.

FREQUENCIES IN 1000's



AUG 19 1986

## 1.0 INTRODUCTION

### 1.1 Purpose

This report has been prepared to provide a summary of the results of the 1986 On-Board Survey of RTD Riders. Although detailed data are available in a two-volume set (comprised of a report of the methodology and one of the computer-generated data tables) as well as a data tape, this report is intended to serve as an easy reference source for the more commonly raised questions about RTD rider demographics and travel behavior.

### 1.2 Report Outline

Chapter One discusses the Study purpose and presents some conclusions derived from the results.

Chapter Two summarizes the various demographic characteristics of riders. Chapter Three describes trip-related characteristics of riders. Where significant differences appear, these statistics are presented by the different rider demographics. Also, where available, comparable data from prior studies are presented to show longer term trends. These chapters should prove especially useful in responding to questions from the media and various community outreach groups about the composition of the RTD population. From the operational side, these data help in understanding how changing demographics may impact RTD service. In Chapter Four, a brief summary of the methodology is presented, as well as a copy of the survey questionnaire.

### 1.3 Conclusions

The data obtained from the 1986 On-Board Survey -- by themselves as well as in comparison with data from prior on-board surveys -- lead to several conclusions, with some far reaching implications for RTD services.

- The aging of the rider population suggests that the ridership mix is changing, with fewer young people using RTD. This may have some negative implications for RTD's future. Fewer young riders suggests an erosion of our future ridership base.
- A second implication of the changing age mix has to do with the service mix offered by RTD. Is the service provided meeting the needs of the older population, therefore more of them are riding; or, is the population getting older because younger

riders' needs are not being met so they are not using the service?

- There has been a sharp increase in minority riders. Hispanic ridership shows the greatest increase going from 26% of weekday ridership in 1983 to 41% in 1986. Black ridership declined by six percentage points. But, the most alarming decrease was noted in white ridership which dropped to 20% in 1986 from 36% in 1983. These changes in ethnicity suggests various service implications; among them:

- A greater than ever need to have Spanish language versions of all informational or promotional materials.
- The relative lack of growth of the Asian ridership, despite the increase of the Asian population, suggests consideration be given to providing information in some Asian languages.
- The serious erosion of the white ridership base suggests the needs of this group are not being met.
- The heavier use of RTD service on Sundays by Hispanics implies there may be opportunities for providing more service on Sundays to shopping and recreation areas patronized by Hispanics.
- Hispanic riders have the highest incidence of cash/ticket/token use. Given their lower income levels, the District may wish to consider introducing a weekly or bi-weekly pass fare which is more affordable for lower income riders.
- White and Asian riders have the highest incidence of Senior Citizen pass use. Given that these two groups are also the highest income groups, the District may wish to reevaluate the deep discounts it provides to senior citizens.

- The proportion of riders with a vehicle, or access to a vehicle has declined over the past three years, while the number of buses required to complete a trip has increased. It may be concluded that RTD is losing riders from the ranks of the discretionary rider because the number of transfers required to complete a trip has become onerous. This is the very group of riders that the District has been attempting to woo. If they stop using RTD, the District would eventually return to being the transit provider for the elderly, the poor and the transit dependent -- a stereotype RTD has been trying to shed for several years.

## 2.0 DEMOGRAPHICS OF RTD RIDERS

### 2.1 Age of Riders

Although, in comparison with 1980 Census data, the median age of RTD riders has been consistently younger, there has been a gradual aging of the RTD rider population. The earlier on-board surveys of 1978 and 1981 showed the median age of the weekday rider increasing from 26 to 27.4 years. The more recent on-board surveys of 1983 and 1986 show that median age has risen to above 28 years. By comparison, the median age of Los Angeles County in 1980 was over 30.

While this increase could well be a reflection of the general aging of the population at large, it could also be an indication that RTD's ridership mix is indeed changing.

More significant than the overall age is the age of specific subgroups of riders. While the mean age of white riders has remained at 39 from 1983 to 1986, the mean age of Hispanic and Black riders has increased to 30 in 1986 from 29 in 1983. Comparable age data for Asians were not available from the 1983 survey. The mean age of Asian riders in 1986 is 33. A higher proportion of White riders are 65 and older. More than half the Hispanic riders are under 30 years of age. (Table 1).

### 2.2 Rider Gender

Prior surveys have indicated that women are in the majority among RTD riders. The 1986 survey confirms that this phenomenon still prevails, but to a lesser extent. In 1978 over 58% of the riders were females. In 1981, the percentage of female riders declined to 53.5%. In 1986, this proportion has declined even further, to 52%.

Rider gender mix varies by ethnicity, trip purpose and availability of a vehicle for the trip. Thus, it is seen that while among Whites and Asians there is an equal proportion of males and females, among Hispanics, and more so among Blacks, female riders outnumber male riders. (Table 2).

Two-thirds of the riders on medical trips are female. Females are also in the majority on school and shopping trips. On recreational trips, however, 60% of the riders are male. Males and females are equally represented on work-related trips. (Table 3). Among those riders who had a vehicle available for "this" trip, over one-half are male. Among riders who had no vehicle available for "this" trip, more than half are female.

TABLE 1

## RIDER AGE BY ETHNIC GROUP

	<u>Total Riders</u>	<u>White</u>	<u>Hispanic</u>	<u>Black</u>	<u>Asian</u>
AGE:					
Less than 15	2%	2%	2%	3%	3%
15 - 19	16	12	16	18	20
20 - 29	30	23	37	29	24
30 - 39	18	15	19	21	18
40 - 49	9	10	8	7	9
50 - 59	5	8	4	4	5
60 - 64	2	4	1	2	4
65 & older	6	14	2	2	7
No response	12	11	11	13	10
Average Age (mean)	32.2	39.0	29.7	30.3	33.3

TABLE 2

## RIDER SEX BY ETHNIC GROUP

	<u>Male</u>	<u>Female</u>
White	50%	50
Hispanic	48%	52
Black	44%	56
Asian	50%	50
All Riders	48%	52

TABLE 3

## TRIP PURPOSE BY RIDER SEX

	<u>Male</u>	<u>Female</u>
Work	50%	50
School	46%	54
Shopping	41%	59
Recreation	60%	40
Medical	23%	67
All Riders	48%	52

### 2.3 Ethnic Background of Riders

During the past 30 years, the ethnic composition of Los Angeles County has changed dramatically. In 1950, more than 86% of the County's residents were White; Blacks and Hispanics comprised less than 7% each of the population. The 1980 Census showed that Whites comprised only 53% of Los Angeles County's population, with Hispanics accounting for 28%, Blacks for 13% and Asians for 6%.

Today, with the large influx of Asians which occurred during the early 1980's, these proportions are probably further changed. Even so, the ethnic composition of RTD riders differs significantly from that of the County population. Minority riders predominate to a greater extent than their representation in the general population would warrant. Only 20% of all RTD weekday riders are White. More than 40% are Hispanic and 22% are Black. Eight percent are Asian. The proportion of Hispanic riders is higher on Sundays than on weekdays or Saturdays. (Table 4).

Ethnic composition of riders also varies by income level. More than half the riders with an annual household income of under \$10,000 are Hispanic. More than one-third of those whose annual household income is \$35,000 or more are White.

ANNUAL HOUSEHOLD INCOME OF ETHNIC GROUPS

	Under \$10,000	\$10,000- \$19,999	\$20,000- \$34,999	\$35,000- \$49,999	\$50,000 & Over
White	16%	21%	28%	34%	37%
Hispanic	54	40	30	21	20
Black	19	24	27	28	27
Asian	6	9	10	12	9
Other	3	4	3	3	5
No response	3	2	2	1	1



TABLE 4

## ETHNICITY OF RTD RIDERS

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
White	20%	19%	16%
Hispanic	41	42	45
Black	22	24	21
Asian	8	5	8
Other	4	3	3
No Response	6	7	8

## 2.4 Annual Household Income

The 1986 survey found an income pattern similar to that seen in the 1983 survey. Namely, that Whites have the highest average income, followed by Asians and Blacks, with Hispanics still averaging the lowest annual household income. The table below shows the relative annual income of the four ethnic groups for the two survey years:

### ANNUAL HOUSEHOLD INCOME (AVERAGE)

	<u>1983</u> <u>ON BOARD</u> <u>SURVEY</u>	<u>1986</u> <u>ON BOARD</u> <u>SURVEY</u>	<u>PERCENT</u> <u>CHANGE</u>
WHITE	\$17,000	\$23,200	+37%
ASIAN	16,500	21,780	+32
BLACK	13,000	19,750	+52
HISPANIC	10,500	12,569	+20

The income levels seen for the various ethnic groups becomes even more differentiated as the number of persons per household, is compared. With an average of 4.6 persons in the household, Hispanics average \$2,732 per person in the household. In contrast, Whites, with 2.7 persons per household, average \$8,592 per capita. The comparable numbers for Blacks and Asians are \$5,486 and \$5,445, respectively.

Annual household income also varies by day of week. Weekday riders average \$17,890 in annual household income. On Saturday and Sunday, average annual household income is \$15,300 and \$15,220, respectively. (Table 5).

There is a considerable difference between the annual household income of male riders and female riders. The average annual household income of male riders is \$19,610. The comparable figure for female riders is \$15,510.

TABLE 5

## HOUSEHOLD INCOME BY DAY OF WEEK

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
Less than \$5,000	19%	21%	24%
\$ 5,000 - \$ 9,999	16	18	17
\$10,000 - \$14,999	11	12	11
\$15,000 - \$19,999	9	8	6
\$20,000 - \$24,999	6	6	5
\$25,000 - \$34,999	7	6	6
\$35,000 - \$49,999	5	4	4
\$50,000 - \$74,999	3	2	2
\$75,000 or more	2	2	2
No Response	21	24	23
Average Income	\$17,890	\$15,300	\$15,220

## 2.5 Household Size and Number Employed

Overall, 11% of all RTD riders live alone. Major variations are seen by ethnic group. Whereas 27% of Whites live alone, only 4% of Hispanics, 7% of Asians and 11% of Blacks live in one-person households.

By the same token, Hispanics are seen to have the largest households, averaging 4.6 persons per household. Whites have the smallest households with an average of 2.7 persons. Blacks and Asians are between these two extremes with 3.6 and 4.0 persons per household, respectively.

Not surprisingly perhaps, there is a direct correlation between age and single person households. That is, the older the rider, the more likely s(he) is to be living alone.

Overall, there are an average of 2.5 persons employed per rider household. Once again, the greatest variations are seen by ethnic group. In this instance, Hispanics and Asians, with the largest average households, also have the highest number of employed persons per household -- 2.7 among Hispanics and 2.6 among Asians. Blacks average 2.3 employed persons and Whites average 2.2 employed persons per household.

There is also a strong correlation between annual household income and average number of employed persons in the household. The \$10,000 - \$14,999 annual household income group averages the lowest number of employed persons -- 2.3. As income increases from this level, so does the average number of employed persons. At the \$50,000 or more income level, the average number of employed persons per household has risen to 3.1.

*or Availability*

2.6 Ownership of Automobile

Overall, 15% of RTD riders have no automobile (or other private vehicle) in the household. Automobile ownership is directly correlated to income. Namely, as income increases, so does the proportion of riders who own an automobile. Thus, while those with an annual income of less than \$5,000 have, on the average, just under one car per household, those in the \$50,000 or more income bracket average well over two cars per household. (Table 6).

*invalid  
conclusion*

Ownership of automobiles varies inversely with age. As age increases, car ownership decreases. The summary table below illustrates this:

AVERAGE NUMBER OF CARS BY AGE

Under 18	1.94
18 - 24	1.49
25 - 34	1.20
35 - 54	1.11
55 - 64	1.08
65 and older	.78
Total Sample	1.33

TABLE 6

## MOTOR VEHICLES IN HOUSEHOLD BY INCOME

	<u>No Vehicles</u>	<u>One</u>	<u>Two</u>	<u>Three</u>	<u>Four Or More</u>	<u>Average</u>
Under \$ 5,000	20%	20	8	3	2	.97
\$ 5,000 - \$ 9,999	20%	28	9	3	2	1.01
\$10,000 - \$14,999	19%	33	11	3	2	1.05
\$15,000 - \$19,999	17%	34	20	5	2	1.25
\$20,000 - \$24,999	13%	39	23	5	4	1.37
\$25,000 - \$34,999	9%	38	28	10	3	1.55
\$35,000 - \$49,999	5%	36	33	14	6	1.79
\$50,000 and over	3%	19	31	21	18	2.34

### 3.0 TRIP-RELATED CHARACTERISTICS

#### 3.1 Type of Fare Paid

Half of all weekday riders use a pass of some type for their rides. It is difficult to compare results from the 1986 survey with those of 1983 and 1981 because the fare data for 1983 were from a fare check, while in 1986 the data are supplied by the rider. In the 1981 survey, the use of transfers was combined with the cash/ticket/token fare category. Nevertheless, there is a high degree of consistency among the results of the three surveys. There has been very little change in the proportion using a regular monthly pass, or a senior citizen pass. Use of student and college/vocational passes was higher in 1983 than in 1981 or 1986. The following table presents a summary of the fare data from the three surveys:

TYPE OF FARE PAID BY WEEKDAY RIDERS

	SURVEY YEAR		
	<u>1986</u>	<u>1983*</u>	<u>1981</u> #
Cash/Ticket/Token	36%	39%	48%
Transfer	13	**	-
Regular Monthly Pass	25	23	23
Student Pass	12	16	11
Senior Citizen Pass	7	7	7
College/Vocational Pass	4	6	5
Handicapped Pass	1	2	2
Other	4	5	5

\* Data from fare check

\*\* Transfers not broken out

# Transfers combined with cash/ticket/token category

Fare payment method varies by ethnic group. Cash fares are much more common among Hispanic riders than any other group. Asians have a disproportionately greater use of student and college/vocational passes, while Whites have a higher incidence of senior citizen pass use. (Table 7).

Fare payment method shows differences by time of day. Those who use a student pass or regular or express monthly pass are more likely to ride during the peak hours. Those who use a cash/ticket/token fare, a handicapped pass and especially a college/vocational pass, or senior citizen pass, are more likely to ride during off-peak hours.

WEEKDAY HOURS

	<u>PEAK</u>	<u>OFF-PEAK</u>	<u>NO RESPONSE</u>	<u>TOTAL</u>
Cash/ticket/token	46%	54	-	100%
Handicapped pass	43%	55	2	100%
College/vocational pass	38%	62	-	100%
Senior Citizen pass	33%	66	1	100%
Regular monthly pass	54%	46	-	100%
Express monthly pass	67%	31	2	100%
Student pass	60%	40	-	100%

As might have been suspected, student and college/vocational pass users report the lowest average age -- 20.9 -- while senior citizen pass users have the highest average age -- 64. Regular pass users and handicapped pass users are older than the average rider with mean ages of 34.0 and 35.7, respectively. Cash users are younger than average, with a mean age of 29.7.

By income categories, handicapped pass users have the lowest average income of all fare method groups -- \$12,620 annual household income. They are followed by senior citizen pass users who average \$13,720 a year. The highest annual income is reported by cash users, \$17,906. Regular pass users are next with an average annual income of \$16,238.

3.2 Mode of Access/Mode of Egress

Two-thirds of weekday RTD riders access the bus on foot. The proportions walking to the bus are higher for Saturday (70%) and Sunday (69%). Of those who walk to the bus, 83% have to walk less than four blocks.

Overall, 25% of riders transfer to the bus from another RTD line; 2% report transferring from another bus system. Although only 4% access the bus by auto, either as a driver or as a passenger, 9% of those on express lines access by auto (Table 8).

These access mode data, which are for boarding patrons, closely parallel those for patrons alighting from the bus. Thus, upon leaving the bus, 65% of weekday riders report they will walk, 26% will transfer to another RTD line and 2% will drive or be driven to their final destination.



TABLE 7

FARE PAYMENT METHOD BY ETHNIC GROUP  
(FOR BOARDING THIS BUS)

	<u>All Riders</u>	<u>White</u>	<u>Hispanic</u>	<u>Black</u>	<u>Asian</u>
Cash/Ticket/Token	36%	35%	40%	36%	25%
Regular Pass	25	21	27	25	24
Transfer	13	12	13	16	11
Student Pass	11	7	12	11	18
Senior Pass	8	16	4	4	12
College/Vocational Pass	4	2	4	5	11
Express Pass	2	3	2	3	3
Handicapped Pass	1	2	1	1	1
Other	2	4	1	3	*
No Response	3	1	2	2	2

\* Less than 0.5%

TABLE 8

## MODE OF ACCESS TO BUS

	<u>WEEKDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>
Walked - total	67%	70%	69%
Less than 1 block	23%	24%	26%
1 - 3 blocks	60	58	57
4 - 7 blocks	14	15	15
More than 7 blocks	3	3	2
Transferred from another RTD line	25	22	24
Drove/was driven	4	3	3
Transferred from another bus system	2	2	1
Other	*	1	1
No response	2	2	2

\* Less than 0.5%



Vehicle availability varies by ethnic group. Asians are more likely to have a vehicle available than any other ethnic group; Hispanics are least likely to have a vehicle available for the trip.

VEHICLE AVAILABILITY BY ETHNIC GROUP

	<u>Yes, As Driver</u>	<u>Yes, As Passenger</u>	<u>No</u>	<u>Total</u>
Total riders	10%	11	79	100%
White	15%	9	76	100%
Hispanic	6%	11	83	100%
Black	11%	9	80	100%
Asian	12%	22	66	100%

Vehicle availability increases as income increases. Riders on express lines are more likely to have a vehicle available for the trip than those on local lines.

3.4 Trip Purpose

Overall, work predominates as the major trip purpose. School is a distant second, followed by shopping. There has been a decrease in weekday work-related trips since the 1983 survey, but an increase in Sunday work-related trips. The sharpest change, however, is seen in the decrease from 1983 levels in recreation/visiting trips, especially on Sundays.

\*RIDERSHIP BY TRIP PURPOSE -- 1983 VS 1986

	<u>Weekday</u>		<u>Saturday</u>		<u>Sunday</u>	
	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>
Work	50%	54%	38%	36%	31%	22%
School	22	21	5	1	2	1
Shopping	10	11	26	29	21	23
Medical	7	3	4	2	2	2
Recreation/Visiting	4	8	13	19	21	36
Other	3	11	3	16	5	21

\* Totals are greater than 100% because of double counting of trips which are not home-based.

### 3.5 Number of Buses Required for Trip

There has been a noticeable increase in the number of buses required to complete a trip since the 1983 survey. In 1983, the majority of linked trips on weekdays and Saturdays required only one bus. In comparison, 1986 data show that the majority of riders required more than one bus to complete their trips. The table below shows the results from the two time periods:

NUMBER OF BUSES REQUIRED TO COMPLETE TRIP

	<u>Weekday</u>		<u>Saturday</u>		<u>Sunday</u>	
	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>	<u>1986</u>	<u>1983</u>
One	43%	54%	47%	52%	46%	48%
Two	39	39	36	42	37	43
Three	12	6	11	5	11	8
Four or more	6	1	6	1	6	1
Total	100%	100%	100%	100%	100%	100%
Average	1.80	1.54	1.75	1.54	1.76	1.64

#### 4.0 METHODOLOGY

The 1986 SCRTD On-Board Survey was conducted by Market Opinion Research (MOR). A detailed report of the methodology was prepared by MOR and is available for reference. For this report, only a brief review is presented below.

#### 4.1 Sample

SCRTD provided MOR with three separate samples of half-day bus runs. A total of 200 weekday, 100 Saturday and 100 Sunday half-day runs were stratified by three ridership levels and four service levels.

The total sample yielded 1,542 trips as follows:

Total weekday trips sampled	751
Total Saturday trips sampled	409
Total Sunday trips sampled	382

#### 4.2 Questionnaire

A draft questionnaire was provided by SCRTD. MOR formatted the questionnaire on 12 x 11 inch light card stock, folded to 6 x 11 inchs. One panel contained the English version of the questions, the other panel had the Spanish version. A business reply mail permit and SCRTD's address were on the reverse side to allow mail backs.

Each questionnaire was sequentially numbered. These numbers were used for control of interviewer assignments, for identifying the numbers of questionnaires completed, refused, not distributed or carried off the bus.

#### 4.3 Interviewing

All interviewers were trained by MOR and attended a 2-3 hour briefing session prior to the start of the survey. After completing two initial assignments, they each attended a debriefing session of 1-2 hours. All information was repeated in Spanish for the Spanish-speaking interviewers. Approximately 30% of interviewers were Spanish-speaking.

Interviewers were responsible for several activities in addition to distributing and collecting questionnaires on board their assigned bus. They kept a tally of total boardings, sum of eligible male riders, sum of eligible female riders, sum of children under 12 (ineligible) and sum of blind or other disabled person unable to respond to the questionnaire (ineligible). Also, they tallied the number of boardings by blacks, whites, Hispanics, Asians and Other ethnic categories.



Check if you have already filled out one of these forms.

Line Number \_\_\_\_\_

Time got on bus \_\_\_\_\_  a.m.  p.m.

RTD needs your answers to these questions to help us improve service to you. PLEASE FILL THIS OUT WHILE YOU ARE ON THIS RIDE. Do not leave any of the questions blank. Your answers will be confidential. Return this form at the front or rear doors of the bus, or give it to the person who handed it to you. THANK YOU. We want to make RTD service better for you.

1. How did you get to THIS BUS?

- 1 Walked blocks, 2 Drove Paid parking fee of \$, 3 Was driven, 4 Transferred from RTD line #, 5 Transferred from other bus system, 6 Other

2. FROM WHERE did you come before you got on this bus? (Check one only)

- 1 Home, 2 Work, 3 School, 4 Medical, 5 Shopping, 6 Recreation, 7 Other

3. What is the address of the place you checked in Question 2 above? (If you don't know the address, WRITE IN THE NEAREST CROSS-STREETS.)

Number Street City Zip Code

4. After you get OFF THIS BUS, you will:

- 1 Walk blocks, 2 Drive: Pay parking fee of \$, 3 Be driven, 4 Transfer to RTD line #, 5 Transfer to other bus system, 6 Other

5. Where are you GOING TO? (Check one only)

- 1 Home, 2 Work, 3 School, 4 Medical, 5 Shopping, 6 Recreation, 7 Other

6. What is the address of the place you checked in Question 5 above? (If you don't know the address, WRITE IN THE NEAREST CROSS-STREETS.)

Number Street City Zip Code

7. Please write in the line numbers of ALL the buses you will ride to get from the place in Question 2 to the place in Question 5.

Line number of 1st bus, Line number of 2nd bus, Line number of 3rd bus, Line number of 4th bus

8. What is your age? \_\_\_\_\_

9. Are you 1 Male 2 Female

10. What type of fare did you use to get on THIS bus? (Check as many as apply)

- 1 Used a transfer, 2 Cash/ticket/token fare of \$, 3 Senior Citizen Pass of \$, 4 Student Pass of \$, 5 College/Vocational Pass of \$, 6 Regular Monthly Pass of \$, 7 Monthly Pass with Express Stamp, 8 Other, 9 Handicapped pass of \$

a. If you used a handicapped cash fare, or a Handicapped Pass, which of the following qualified you to do so?

- 1 Deafness, 2 Use crutches/walker/cane/etc., 3 Use a wheelchair, 4 Other reason

11. How many motor vehicles (cars, trucks, vans) IN WORKING CONDITION, are there in your household? \_\_\_\_\_

12. How many licensed drivers are there in your household? \_\_\_\_\_

13. Was a vehicle available today for you to use to make this trip?

- 1 Yes, as driver, 2 Yes, as passenger, 3 No

14. To which ethnic group do you belong?

- 1 White/Caucasian, 2 Hispanic/Latino, 3 Black, 4 Asian/Pacific Islander, 5 American Indian/Aleut, 6 Other

15. What is the total number of persons living in your household? (Count yourself too) \_\_\_\_\_

16. How many are employed? \_\_\_\_\_

17. What is the total yearly income of your household?

- 1 Less than \$5,000, 2 \$5,000-\$9,999, 3 \$10,000-\$14,999, 4 \$15,000-\$19,999, 5 \$20,000-\$24,999, 6 \$25,000-\$34,999, 7 \$35,000-\$49,999, 8 \$50,000-\$74,999, 9 \$75,000 or more



Ponga una "X" aquí si ya ha llenado cuestionario como este.

Número de línea \_\_\_\_\_

Hora al abordar el autobús \_\_\_\_\_

RTD necesita sus respuestas a estas preguntas para ayudarnos a mejorar nuestro servicio. Por favor, llene esto mientras hace este viaje. No deje ninguna pregunta en blanco. Sus respuestas serán en confidencia. Devuelva este cuestionario en la parte delantera ó trasera del autobús, ó devuélvalo a la persona que se lo entregó a usted. Gracias. El deseo de RTD es el de servirle mejor.

**1. ¿Como llegó a ESTE autobús?**

- 1  Caminé \_\_\_\_\_ cuadras
- 2  Manejando auto; pagué estacionamiento de \$ \_\_\_\_\_
- 3  Me trajeron por auto
- 4  Transbordé de línea RTD # \_\_\_\_\_
- 5  Transbordé de otro sistema de autobuses \_\_\_\_\_
- 6  Otro modo \_\_\_\_\_

**2. ¿De DONDE VENÍA antes de tomar este autobús? (Marque sino una respuesta)**

- 1  Hogar
- 2  Trabajo
- 3  Escuela
- 4  Doctor o centro médico
- 5  Compras
- 6  Recreación
- 7  Otro lugar \_\_\_\_\_

**3. ¿Cual es la dirección del lugar indicado en pregunta # 2? (Si Ud. no sabe la dirección, INDIQUE EL CRUCE DE CALLES MAS CERCANO A ESE PUNTO.)**

Número \_\_\_\_\_ Calle \_\_\_\_\_

Ciudad \_\_\_\_\_ Código Postal \_\_\_\_\_

**4. Al apearse de ESTE AUTOBÚS, Ud.**

- 1  Caminará \_\_\_\_\_ cuadras
- 2  Manejará auto, pago de estacionamiento de \$ \_\_\_\_\_
- 3  Le llevarán por auto
- 4  Transbordaré a línea RTD # \_\_\_\_\_
- 5  Transbordaré a otro sistema de autobuses \_\_\_\_\_
- 6  Otro modo \_\_\_\_\_

**5. ¿Hacia DONDE se dirige? (Marque sino una respuesta)**

- 1  Hogar
- 2  Trabajo
- 3  Escuela
- 4  Doctor o centro médico
- 5  Compras
- 6  Recreación
- 7  Otro lugar \_\_\_\_\_

**6. ¿Cual es la dirección del lugar indicado en pregunta #5? (Si Ud. no sabe la dirección, INDIQUE EL CRUCE DE CALLES MAS CERCANO A ESE PUNTO.)**

Número \_\_\_\_\_ Calle \_\_\_\_\_

Ciudad \_\_\_\_\_ Código Postal \_\_\_\_\_

**7. Por favor escriba números de las líneas de autobuses que Ud. usará para llegar del lugar en pregunta #2 al lugar mencionado en pregunta #5.**

Número de línea de 1er autobús \_\_\_\_\_ Número de línea de 3er autobús \_\_\_\_\_

Número de línea de 2do autobús \_\_\_\_\_ Número de línea de 4to autobús \_\_\_\_\_

**8. ¿Que edad tiene Ud.?** \_\_\_\_\_  
(por favor especifique)

**9. Ud. es:** 1  Hombre 2  Mujer

**10. ¿Que tipo de Tarifa utilizó para subir este autobús? (Marque todas las respuestas que le aplican)**

- 1  Utilicé un boleto de transbordo
- 2  Dinero en efectivo, boleto o token de \$ \_\_\_\_\_
- 3  Pase de persona mayor de edad, de \$ \_\_\_\_\_
- 4  Pase estudiantil, de \$ \_\_\_\_\_
- 5  Pase de universidad/vocacional, de \$ \_\_\_\_\_
- 6  Pase mensual regular, de \$ \_\_\_\_\_
- 7  Pase mensual con estampilla expreso de \_\_\_\_\_
- 8  Otro \_\_\_\_\_
- 9  Pase de persona incapacitada, de \$ \_\_\_\_\_

**a. ¿Si Ud. usó pasaje o pase de persona incapacitada, cual de los siguientes le calificó a Ud. por la tarifa?**

- 1  Incapacidad de oído
- 2  Uso muleta/bastón/caminador
- 3  Uso silla de ruedas
- 4  Otro razón \_\_\_\_\_

**11. ¿Cuantos vehiculos de motor (autos, camiones, camionetas) en buenas condiciones se usan en su hogar?** \_\_\_\_\_

**12. ¿Cuantos personas con licencia de conducir hay en su hogar?** \_\_\_\_\_

**13. ¿Tenia un vehiculo disponible para realizar éste viaje?**

- 1  Si, como conductor
- 2  Si, como pasajero
- 3  No

**14. ¿A que grupo étnico pertenece Ud.?**

- 1  Blanco/Caucásico
- 2  Hispano/Latino
- 3  Negro
- 4  Asiático/de Las Islas del Pacifico
- 5  Indio Americano
- 6  Otro \_\_\_\_\_

**15. ¿Cual es el número total de personas que viven en su hogar? (incluyendose a si mismo)** \_\_\_\_\_

**16. ¿Cuantas estan empleadas?** \_\_\_\_\_

**17. ¿Cual es el ingreso total anual en su hogar?**

- 1  Menos de \$5,000
- 2  \$5,000 a \$9,999
- 3  \$10,000 a \$14,999
- 4  \$15,000 a \$19,999
- 5  \$20,000 a \$24,999
- 6  \$25,000 a \$34,999
- 7  \$35,000 a \$49,999
- 8  \$50,000 a \$74,999
- 9  \$75,000 o mas



bus, doblarlo dejando la dirección en la parte de  
afuera y depositarlo en un buzón postal.



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 42087 LOS ANGELES, CA

*POSTAGE WILL BE PAID BY ADDRESSEE*

**SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT**

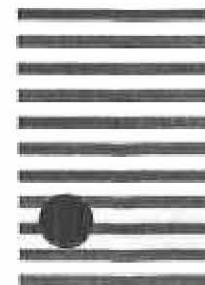
**Attn: Market Research  
425 S. Main Street  
Los Angeles, CA 90013**

**If you forgot to return this on the bus, fold with  
the address out, tape and drop in a mailbox.**

**Si olvido devolver este cuestionario en el auto-  
bús, doblelo dejando la direccion en la parte de  
afuera y depositelo en un buzón postal.**



**NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES**



**BUSINESS REPLY MAIL**  
FIRST CLASS PERMIT NO. 42087 LOS ANGELES, CA

#### 4.4 Response Rate

The total count of eligible respondents was 77,392. Of that total, 37,227 were males (48.1%) and 40,165 were females (51.9%). In addition, 8,425 non-eligible boardings were tallied, of which 7,203 were children under 12 and 1,222 were blind or other disabled who were unable to respond.

A total of 67,150 questionnaires was distributed. The following table shows the results of this distribution:

Total eligible respondents	77,392
Total questionnaires distributed	67,150
Completed questionnaires returned	24,145
Incomplete questionnaires returned	3,460
Refusals	20,406
Missing questionnaires (carried off bus)	19,139
Completed questionnaires as % of distribution	36.0%
Incomplete questionnaires as % of distribution	5.1
Refusals as % of distribution	30.4
Missing questionnaires as % of distribution	28.5
	<u>100.0%</u>
Completed questionnaires as % of eligible respondents	31.2%

## TAPE SPECIFICATION FOR RTD OUTPUT FILE

Sorted in Bus Line/Bus Run sequence (fields 286 thru 291);  
 NON- label, density 6250, 9 track; Block size = 8575;  
 Number of records = 24,145

Field description for RTD record follows, see questionnaire  
 for preassigned codes.

Position	(Width)	Field Name - Description
1 - 5	(5)	RESPNO - MOR Data Entry Control
	6	(1) VERSION - 1 = English; 2 = Spanish
7 - 12	(6)	QNAIRENO - Number printed on questionnaire
13 - 15	(3)	QLINENUM - MOR Internal Use Only
16 - 19	(4)	TIME - Time got on bus
	20	(1) AMPM - 1 = AM; 2 = PM
	21	(1) Q1
22 - 23	(2)	Q1BLOCK - Walked number of Blocks
24 - 27	(4)	Q1PAID - Dollars/Cents (DCC) Parking Fee Paid
28 - 30	(3)	Q1RTD - RTD Line Transferred From
	31	(1) Q1BUS - Other Bus System Transferred From
32 - 33	(2)	EXTRA/FILLER
34 - 35	(2)	Q2
36 - 41	(6)	Q3STRNO - Street Number
42 - 75	(34)	Q3STRNAM - Street Name
	76	(1) EXTRA/FILLER
77 - 80	(4)	JOBID - MOR Job Identification
81 - 105	(25)	Q3CITY
106 - 109	(4)	EXTRA/FILLER
110 - 114	(5)	Q3ZIP
	115	(1) Q4
116 - 117	(2)	Q4BLOCK - Walked number of blocks
118 - 121	(4)	Q4PAID - Dollar/Cents (DCC) Parking Fee Paid
122 - 124	(3)	Q4RTD - RTD Bus Line Transferred TO
	125	(1) Q4BUS - Other Bus System Transferred TO
126 - 127	(2)	EXTRA/FILLER

## Record Layout RTD (CONT'D - G86087)

Position	(Width)	Field Name	Description
128 - 129	(2)	Q5	
130 - 160	(31)	EXTRA/FILLER	
161 - 166	(6)	Q6STRNO	Street Number
167 - 200	(34)	Q6STRNAM	Street Name
201 - 225	(25)	Q6CITY	
226 - 229	(4)	EXTRA/FILLER	
230 - 234	(5)	Q6ZIP	
235 - 240	(6)	EXTRA/FILLER	
241 - 243	(3)	Q7M1	First Mention
244 - 246	(3)	Q7M2	Second Mention
247 - 249	(3)	Q7M3	Third Mention
250 - 252	(3)	Q7M4	Forth Mention
253 - 254	(2)	AGE	
255	(1)	SEX	
256	(1)	Q10M1	First Mention
257	(1)	Q10M2	Second Mention
258	(1)	Q10M3	Third Mention
259 - 261	(3)	CASH	Cash Fare Q12/Code 2
262 - 263	(2)	SENIOR	Senior Pass Cost Q12/Code 3
264 - 265	(2)	STUDENT	Student Pass Cost Q12/Code 4
266 - 267	(2)	COLLEGE	College Pass Cost Q12/Code 5
268 - 269	(2)	REGPASS	Regular Pass Cost Q12/Code 6
270	(1)	MONPASS	Number of Express Stamps Q12/Code 7
271 - 272	(2)	OTHFARE	10 = Employee Pass/11 = Yearly Pass
273 - 274	(2)	HANDICA	Handicapped Pass Cost Q12/Code 9
275	(1)	Q10A	
276	(1)	EXTRA/FILLER	
277	(1)	Q11	

## Record Layout RTD (CONT'D - G86087)

Position	(Width)	Field Name - Description
278	(1)	Q12
279	(1)	Q13
280	(1)	Q14
281	(1)	EXTRA/FILLER
282 - 283	(2)	Q15
284	(1)	Q16
285	(1)	Q17
286 - 288	(3)	LINENUM - Line Number
289 - 291	(3)	BUSRUN - Bus Run
292 - 294	(3)	CLUSTER - Record Number of Half Run in Field Report
295 - 299	(5)	Q3X COORD - Geo Code
300 - 304	(5)	Q3Y COORD - Geo Code
305 - 309	(5)	Q6X COORD - Geo Code
310 - 314	(5)	Q6Y COORD - Geo Code
315 - 318	(4)	EXTRA/FILLER
319	(1)	GEOCODE FLAG - 1 = No Hit Both Addr 2 = No Hit One Addr/Match One Addr 3 = Match Both Addr Blank = No Hit Both Addr
320	(1)	RUNCNTRL - MOR Internal Use Only
321	(1)	EXTRA/FILLER
322	(1)	V9 - SAMPDAY - 1 = Weekday 2 = Saturday 3 = Sunday
323	(1)	EXTRA/FILLER
324	(1)	V10 - STRATA - 1 = Local1 2 = Local2 3 = Local3 4 = Express

## Record Layout RTD (CONT'D - G86087)

Position	(Width)	Field Name & Description
325	(1)	EXTRA/FILLER
326	(1)	V11 - DENSITY - L = Light M = Medium H = Heavy
327	(1)	EXTRA/FILLER
328	(4)	STRATA WEIGHT
332	(1)	EXTRA/FILLER
333	(4)	RESPON WEIGHT - Respondent Weight
337	(1)	EXTRA/FILLER
338	(4)	TOTAL WEIGHT
342	(1)	EXTRA/FILLER
343	(1)	TOD - MOR Internal Use Only
344	(5)	Total Weight adjusted for missing O-D's - missing O-D's = 0