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MARKET IMPACT SURVEY

A STUDY OF THE EFFECTS OF THE JULY, 1978 FARE INCREASE

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INTRODUCTION

In March of 1978 SCRTD was anticipating a "serious shortfall in the budget ...on the order of $20 million"[1] for fiscal year 1978-1979. Inflationary cost increases and Proposition 13 were putting the economic squeeze on SCRTD. Even a steadily rising ridership base could not produce enough additional farebox revenue to offset the increased cost of keeping the buses on the streets.

After consideration of six alternative new fare structures, the SCRTD Board of Directors voted to increase the base fare 12.5% (from 40¢ to 45¢) and the senior citizen fare 50% (from 10¢ to 15¢). The basic monthly pass was to cost 11.1% more, going from $18 to $20. The student monthly pass was raised from $12 to $14, a 16.7% increase. The senior citizen and handicapped rider monthly passes were to remain at $4, a price which had been in effect since 1974 (since 1967 the price of the senior citizen pass had been $9 per month). The charge for each express "step" remained unchanged at 20¢.

The management of SCRTD did not introduce a fare increase without concern for its effects on both ridership levels and on various socioeconomic groups, especially the poor and the elderly. Out of this concern evolved the Planning Department's request that the Market Research Unit conduct

a Market Impact Survey "to profile the characteristics and ... the mode choice behavior of our current patronage... followed with a post-change survey and analysis."[2]

A small-scale study, based on a non-statistical sample of before and after fare checks, had been conducted by the Service Analysis Section after the fare increase in July, 1977. The results indicated "a 6% decline in ridership" in July.[3] The Market Impact Survey is an extensive study based on a large statistically-selected sample. Its findings should provide a more insightful understanding into the longer-term effects of a fare increase.

SUMMARY OF FINDINGS

Some statistically significant changes in ridership profiles did occur after the July, 1978 fare increase, but all appear to be related to variables other than higher fares. None seem directly attributable to the fare increase.

Finding:	Use of the monthly student pass was significantly lower in September.
Finding:	The proportion of riders paying cash fares was significantly higher in September.
Implications:	Because schools are not in session for the full month of September, students tend to pay cash fares during that month and buy their first student pass of the school year in October.
Finding:	There was a significant decline in the use of the senior citizen monthly pass.
Finding:	There was a significant decline in the proportion of riders paying senior citizen discount cash fares.
Finding:	The proportion of elderly riders 62 or older dropped significantly.
Finding:	Sales of senior citizen monthly passes were 18% higher in September than in May.
Finding:	Temperatures during the week of the September survey ranged from 98 to 107 degrees.
Implications:	The hot weather in September probably had more effect on senior citizen ridership during the week of the survey than did the fare increase.
Finding:	There was a significant drop in the proportion of shopping and medical trips.
Finding:	There was a significant drop in the proportion of infrequent riders.

Implications: September's extremely hot weather probably played a role in the postponement of discretionary trips, especially among infrequent riders.

Finding: The Market Impact Survey detected no decrease in the number of boardings after the fare increase.

Finding: Planning Department estimates of boardings based on farebox revenues indicate a 10% increase on survey days.

Implications: The fare increase had no discernible effect on the number of boardings.

A general profile of ridership profiles can be drawn from the data obtained by the Market Impact Survey.

Finding: The proportion of riders paying cash fares ranges from 62 to 69 percent, depending on the point in time being considered.

Finding: Uncontrolled variables such as weather extremes can have an effect on fare patterns and on ridership among some rider sub-groups.

Implications: Consideration should be given to improving the assumptions underlying the computation of patronage reports from farebox revenues. Weather data and data reflecting fare pattern variations by month should be factored in to the formula.

A large untapped market for monthly pass sales exists among SCRTD riders.

Finding: Approximately half the trips by bus are to or from work.

Finding: About 30 percent of the bus trips are to or from school.

Finding:	Up to 75 percent of the riders use the bus five or more days a week.
Implications:	Marketing efforts to stimulate additional ridership should probably be aimed at off-peak discretionary trips.
	Consideration should be given to limiting the use of discount cash fares or discount passes to off-peak hours to spread loads more evenly throughout day.
Finding:	The young and the elderly represent about 47% of all transit users. Student-age riders 21 or younger comprise about 37% of the riders, and senior citizens comprise about 10%.
Finding:	About 60 percent of transit riders are female.
Finding:	Bus riders tend to live in relatively low-income households.
Finding:	Over 70% of bus riders live in households with no car or only one car.
Finding:	Approximately 60 percent of bus riders said they ride the bus because they have no car available.
Implications:	SCRTD's toughest marketing job lies in selling public transit to the 21 to 61 age group, males, middle and higher income groups and people with private transportation readily available.
Finding:	Riders answering the Spanish-language version of the on-board questionnaire ranged from 14 to 18 percent of all riders.
Finding:	About 5 to 6 percent of the respondents said they had a handicap which makes it difficult to get to or use the bus.
Finding:	The elderly were over-represented in the handicapped rider group by a factor of two.
Implications:	The Spanish-speaking and the handicapped are

significant sub-groups among SCRTD ridership. SCRTD's planning and marketing efforts must continue to consider the transportation needs of these and other identifiable sub-groups.

Finding: Nearly 63 percent of the respondents rated SCRTD as doing a good or excellent job of providing transportation services. This percentage was unaffected by the fare increase.

Finding: Between 11 and 12 percent of the respondents wrote comments or suggestions on their questionnaires. There was a smaller percentage of negative comments after the fare increase than there had been before.

Finding: Comments about high fares decreased after the fare increase.

Implications: Apparently the fare increase did not cause significant long-term ill will and resentment towards SCRTD.

RECOMMENDATIONS

I. The Market Impact Survey found some significant variations in fare payment patterns and in ridership profiles which appear to be the result of seasonal influences. Changes in fare patterns and ridership profiles month by month or seasonally should be studied. A study of existing fare checks and a series of on-board surveys would provide data to assist in the planning process, expand the scope of productivity reporting and help to make more specific estimates of daily boardings.

II. The notable effects of the weather on ridership mix and on the number of boardings indicate that climatological data should be included as an important variable in analyses of productivity. Such data are readily available and should be added to SCRTD's computerized data bases. Quantifiable weather data would provide a broadened scope to our knowledge of the inter-related factors affecting ridership and productivity.

III. The large proportion of Spanish-speaking riders indicates that SCRTD must ensure that all communications and informational aids to riders are provided in Spanish as well as English. A substantial segment of SCRTD's ridership has little or no ability to communicate in or understand English. Efforts should be made also to ensure that we are meeting the transportation needs of this group of riders.

IV. A large proportion of riders indicated the presence of a handicap which makes it difficult to get to or use the bus. A study of the nature and severity of such handicaps among riders would enable SCRTD to determine how well the present bus service meets the needs of these riders and how service should be improved.

V. The large proportion of frequent riders who pay cash fares implies the presence of a large market for passes and other forms of pre-paid fares. Important issues which should be examined are the reasons riders buy or do not buy a monthly pass and the possible discriminatory effects of current pass pricing policies on low-income riders (does the relatively high price of a monthly pass preclude low-income riders from buying a pass? Do these riders consequently spend more for public transportation than affluent riders? Is there a large market for weekly passes?).

METHODOLOGY

The Market Impact Survey is a before and after study of ridership which measures the effects of the July, 1978 fare increase in terms of socioeconomic and demographic profiles. A stratified random sample was selected by a four step process. All bus lines in the SCRTD system were first stratified by geographic area served, and then stratified by type of service provided -- local or express. Exhibits I through IX in the Appendix show the stratification of lines by sector and type of service. These exhibits also provide estimates of weekday boardings, riders per bus hour and route miles. Exhibit X in the Appendix summarizes daily boardings by sector and type of line and ranks the sectors by the total number of daily boardings.

After stratification of all bus lines, a table of random numbers was used to select a sample of local and express lines in each sector. Forty bus lines were included in the sample. Exhibit XI in the Appendix lists the lines selected to be in the sample. Random selection of the bus runs to be surveyed on each line was the fourth and final step in sample selection. One bus run on each sample line was surveyed for approximately eight hours.

The first survey was scheduled to occur as near the July 1

fare increase as possible, but before the end of the school year in order to provide an undistorted profile of ridership. Because of manpower limitations the surveying had to be conducted on two days. Most of the lines were surveyed on Tuesday, May 23; the remainder on Thursday, May 25.

The follow-up survey was conducted four months later. Those lines which had been sampled on Tuesday in May were re-examined on Tuesday, September 26. The lines first studied on Thursday were surveyed on Thursday, September 28.

The survey instrument used for the Market Impact Survey was SCRTD's standard on-board questionnaire. Among the socioeconomic variables on this questionnaire are age, sex, number of persons and cars in household, household income, physical handicaps and use of Spanish as primary language. Trip-related variables on the questionnaire include origin and destination, boarding and alighting points along the sampled line, mode of access to and egress from the bus, trip frequency and purpose, type of fare and home address of respondent. The questionnaire also asks the rider's motivation for riding the bus and attitude towards SCRTD. Exhibit XII in the Appendix is a copy of the ques-

tionnaire used.

SCRTD's corps of thirty-five schedule checkers was used to distribute and collect questionnaires on assigned bus runs. The checkers were instructed to hand out questionnaires in numerical order to every boarding passenger (the questionnaires are numbered serially so that responses can be attributed to the correct bus line, bus run and trip on which they were distributed). The checkers also collected completed questionnaires from respondents.

At the end of each trip, the checkers filled out a trip record which, as shown in Exhibit XIII in the Appendix, indicates the first and last questionnaire number handed out on each trip surveyed. This record is one means by which questionnaires are attributed to their correct source. A second means of correctly attributing the questionnaires to specific trips serves as a back-up system in case the checker neglects to fill out a trip record or the trip record is lost. At the end of each trip the checkers put all questionnaires collected on that trip into a large manila envelope which has been labeled previously with the line number, bus run number, trip number and date of survey.

After the checkers returned their completed assignments to SCRTD headquarters, the assignments were logged in and the

trip records checked for accuracy and completeness. The process of manually geo-coding the origin/destination and boarding/alighting questions was then begun. The routine problems of this tedious and time-consuming operation were exacerbated by a lack of trained SCRTD personnel. Assistance on this task was provided by three temporary employees acquired through a temporary employment agency. Their three main functions were to code trip origins and destinations in terms of zip codes shown in the Thomas Brothers Popular Street Atlas, to code boarding and alighting stops according to SCRTD stop code lists, and to code rider comments by using a list of code numbers provided by Market Research.

The development of computer programs to assist in accuracy checks and in data manipulation was another time-consuming process (a process which, having been completed, does not have to be undergone on subsequent surveys employing the standard on-board questionnaire). These computer programs combine data from each respondent into one case, arrange the cases sequentially according to questionnaire number, account for questionnaires which had been handed out on the bus but not returned to the checker, and check cash fares for accuracy.

Analytical computer programs were also developed, using the

Statistical Package for the Social Sciences (SPSS). This software package provides a comprehensive set of procedures for data transformation and file manipulation and offers a large number of statistical routines commonly used in the social sciences and survey research. These SPSS programs can also be used whenever the standard on-board questionnaire is employed for a survey.

NUMBER OF BOARDINGS

The survey taken in May, 1978 accounted for 6,292 boardings. The September follow-up survey accounted for 5,086, or 19% fewer, boardings. In September, however, there were two bus breakdowns on assigned runs and three checkers did not begin or complete their assignments due to illness. Altogether, twenty assigned trips were not surveyed in September. In May these twenty trips had accounted for approximately 1,000 boardings. In addition, one checker failed to account properly for boardings on a line which had yielded 228 more questionnaires in May than in September. When all these factors are taken into account, the net result is that the number of boardings was virtually the same in the May and September surveys. Table I shows the number of questionnaires distributed on each bus line during the two surveys.

The Planning Department's Monthly Patronage Report estimates boardings based on farebox revenues. These estimates for the survey days indicate a 10 percent increase in boardings, as shown below.

Date	Boardings	Date	Boardings
May 23	1,050,000	Sept 26	1,170,000
May 25	1,050,000	Sept 28	1,140,000
Total	2,100,000		2,310,000

TABLE I
NUMBER OF QUESTIONNAIRES DISTRIBUTED

Line	May	September	Percent Change	Notes
2	193	219	+13.5%	
3	444	422	- 5.0%	
6	129	155	+20.2%	
7	277	49	-82.3%	Incomplete count
9	400	0		Checker Sick
14	63	51	-19.0%	
20	220	129	-41.4%	
24	145	167	+15.2%	
28	190	82	-56.8%	Checker Sick
35	235	129	-45.1%	
36	144	170	+18.1%	
39	286	258	-10.0%	
47	115	209	+81.7%	
73	109	130	+19.3%	
87	112	141	+25.9%	
89	457	0		Checker Sick
91	173	219	+26.6%	
114	182	146	-19.8%	Bus Breakdown
144	30	29	- 3.3%	
153	183	292	+59.6%	
154	180	192	+ 6.7%	
435	141	124	-12.1%	
440	189	103	-45.5%	Bus Breakdown
452	29	32	+10.3%	
454	60	54	-10.0%	
480	135	104	-23.0%	
493	120	145	+20.8%	
602	34	0		Checker Sick
607	44	70	+59.1%	
800	80	58	-27.5%	
801	143	170	+18.9%	
802	47	35	-25.5%	
814	124	63	-49.2%	
821/831	129	82	-36.4%	
826	196	280	+42.9%	
844	154	157	+ 1.9%	
861	98	120	+22.4%	
869	49	80	+63.3%	
873	160	200	+25.0%	
Total	6292	5086	-19.2%	

TYPE OF FARE

The variable showing the most significant variation from May to September was the type of fare paid. As shown in Table II, cash fares accounted for a substantially larger proportion in September, up nearly seven percentage points from 52.8% to 59.6% of all fares. It is also significant that in September use of the student pass shows a drop of 7.4 percentage points, going from 12.2% of fares in May to only 4.8% in the follow-up survey. Another significant decrease occurred in the percentage of senior citizen monthly pass use -- down 1.6 points from May.

It appears that two factors influenced the dramatic shifts in fare patterns. Most important is the fact that most schools in Los Angeles County are not in session for the entire month of September. Rather than pay the full price of a monthly student pass, most student riders pay cash fares during September, and begin buying a monthly pass in October. Figures from SCRTD's monthly pass sales report confirm that sales of the student pass for September were the second lowest of the year (after August). Only 8,859 student passes were sold in September, a scant 23.3% of sales in May when 38,089 student passes were sold.

The second factor influencing the shift in fare patterns was

probably the extremely hot weather prevalent in September when the follow-up survey was being conducted. The high temperature at the Civic Center on September 26 was 101 degrees (16 degrees above normal). On September 28 the temperature abated somewhat -- it was 98 degrees (15 degrees above normal). Temperatures were over 90 degrees every day from September 20 through 29, and soared as high as 107 degrees on September 25. When the survey was taken in May, the temperatures had been in the 68 to 70 degree range.[4]

It appears that the hot weather in September may have had an effect on senior citizen ridership. The survey results show a decline in the use of the senior citizen pass, from 5.9% of the respondents in May to only 4.3% in September. This occurrence contradicts the steady growth trend exhibited by senior citizen pass sales during 1978. Sales of the senior citizen monthly pass topped 40,000 for the first time in September, 1978. The 40,307 passes sold represented an 18% increase over May sales of 34,170.

An examination of the cash fare payments reported by respondents in Table III shows that there was a significant decrease in senior citizen cash fares in September. Such a decrease was hypothesized because senior citizen cash fares rose by 50% whereas the price of the senior citizen monthly pass

remained the same. Because the extremely hot weather in September apparently kept many senior citizens from riding the buses, however, it is not possible to ascertain the degree to which the increase in cash fares discouraged bus riding by the elderly or caused them to shift from cash fare to the monthly pass.

A major loss of senior citizen ridership seems unlikely in view of the fact that, even at 15¢, SCRTD's senior citizen cash fare compares favorably with those charged by other transit operators around the country. A survey conducted in April, 1978 showed that Dallas, Miami, San Diego, and Ventura County senior citizens were already paying 15¢ fares. Fares in Washington, D.C. were 20¢ and in Chicago, New York, and Milwaukee senior citizens were charged 25¢ to ride public transit. Whereas SCRTD imposes no restrictions on hours of ridership in connection with discount fares, one-third of the transit operators surveyed restrict discounts for senior citizens to off-peak hours. Table IV lists the agencies which were surveyed.

TABLE II
TYPE OF FARE

	May		September	
Fare Type	Number	Percent	Number	Percent
Cash	1805	52.8%	1706	59.6%
Transfer	312	9.1%	279	9.8%
Base Pass	404	11.8%	411	14.4%
Express Pass	152	4.4%	132	4.6%
Student Pass	416	12.2%	136	4.8%
Senior Pass	203	5.9%	124	4.3%
Handicap Pass	54	1.6%	38	1.3%
Other	73	2.1%	35	1.2%
Total	3419	99.9%	2861	100.0%

TABLE III
CASH FARES PAID

	May		September	
Fare	Number	Percent	Number	Percent
Senior Citizen	110	6.2%	55	3.3%
S.C. & Transfer	26	1.5%	21	1.3%
Base Fare	789	44.7%	784	47.5%
Base & Transfer	610	34.6%	643	38.9%
1 Step	42	2.4%	28	1.7%
1 Step & Transfer	14	.8%	27	1.6%
2 Steps	45	2.6%	14	.8%
2 Steps & Transfer	13	.7%	15	.9%
3 Steps	75	4.3%	36	2.2%
3 Steps & Transfer	25	1.4%	17	1.0%
4 Steps	9	.5%	10	.6%
4 Steps & Transfer	6	.3%	2	.1%
Total	1764	100.0%	1652	99.9%

TABLE IV

FARE COMPARISON

Transit Agency	Location	Base	Senior Citizen	Student	Date
RTA	Chicago	50¢	25¢	25¢	4/78
SEMTA	Detroit	50¢	FREE*	25¢	4/78
NYC Transit Auth	New York	50¢	25¢*	5¢-25¢	4/78
MBTA	Boston	25¢	12.5¢	12.5¢	4/78
SEPTA	Philadelphia	45¢	FREE*	45¢	4/78
County Transit	Milwaukee	50¢	25¢	25¢	4/78
Dallas Transit	Dallas	40¢	15¢	20¢	4/78
Metro Transit	Minneapolis	30¢	FREE*	10¢*	4/78
Dade Cty Transit	Miami	30¢	15¢	15¢	4/78
Bi-State	St. Louis	25¢	10¢	22.5¢	4/78
City Coach Lines	Jacksonville	25¢	10¢*	12.5¢	4/78
WMATA	Washington, D.C.	40¢	20¢*	10¢	1975
Tri-County Metro	Portland	40¢	10¢*	20-30¢	4/78
San Antonio Trans	San Antonio	25¢	10¢	10¢	5/77
SF Muni	San Francisco	25¢	5¢	5¢	4/78
AC Transit	Oakland	25¢	10¢*	15¢	4/78
Golden Gate Trans	San Francisco	25¢	10¢	15¢	5/77
Fresno Transit	Fresno	25¢	10¢	25¢	4/78
Golden Empire Trans	Bakersfield	25¢	10¢	14.3¢	4/78
SCAT	Ventura	35¢	15¢	25¢	4/78
OMNITRANS	San Bernardino	25¢	FREE	10¢	4/78
OCTD	Santa Ana	25¢	FREE	20¢/$8 Pass	4/78
Long Beach Transit	Long Beach	25¢	10¢	15¢	4/78
Santa Monica Muni	Santa Monica	25¢	10¢	12.5¢	4/78
Culver City Muni	Culver City	35¢	10¢	10¢	4/78
Norwalk Transit	Norwalk	20¢	10¢	15¢	4/78
Commerce Bus System	Commerce	FREE	FREE	FREE	4/78
North County Tran	Oceanside	25¢	10¢	$6 Pass	4/78
San Diego Transit	San Diego	35¢	15¢	25¢	4/78

* This discount fare effective during off-peak hours only.

4/28/78

TRIP PURPOSE

Both the May and September surveys showed that work trips account for approximately 50% of all trips. The second most prevalent trip purpose is travel to and from school. The increased proportion of school trips in September (up 3.5 percentage points over May) may be accounted for at least partially by the fact that many schools were dismissed around noon on September 26. For example, one checker noted that one trip on the 153 line at 12:40 PM carried 126 students.

Significant trip purpose variations occurred in the categories of shopping and medical trips. Shopping trips showed a decline from 5.5% of all trips in May to 3.1% in September. Medical trips dropped from 5.2% to 3.0%. Again, the adverse effects of the hot weather must be considered. It is reasonable to assume that a certain number of riders will forego discretionary trips by bus when the temperatures become oppressively high.

Table V shows the trip purpose breakdown as reported in the two surveys.

TABLE V
TRIP PURPOSE

	May		September	
Purpose	Number	Percent	Number	Percent
Work	1531	49.2%	1437	50.6%
School	864	27.8%	888	31.3%
Social/Recreational	266	8.5%	234	8.2%
Shopping	170	5.5%	89	3.1%
Medical	161	5.2%	84	3.0%
Other	121	3.9%	108	3.8%
Total	3113	100.0%	2840	100.0%

TRIP FREQUENCY

A significant change in reported frequency of bus travel was seen from May to September, but, as before, the variation could be attributed to September's heat wave. The largest amount of variation was among those groups of respondents who said they ride the bus less than five days a week. The May survey indicated that 28.9% of the respondents rode less than five days a week. In September this percentage declined to 24.8%.

The single category accounting for most of the variation was made up of respondents who ride the bus less than one day a week -- the infrequent riders. These respondents dropped from 5.2% of the ridership in May to 3.3% in September. Table VI summarizes trip frequency distributions from the two surveys.

TABLE VI
TRIP FREQUENCY

	May		September	
Days Per Week	Number	Percent	Number	Percent
5 or more	2504	71.1%	2159	75.2%
4	308	8.7%	206	7.2%
3	303	8.6%	263	9.2%
2	133	3.8%	94	3.3%
1	91	2.6%	53	1.8%
Less than 1	183	5.2%	96	3.3%
Total	3522	100.0%	2871	100.0%

AGE

Overall, there is a significant variation in the reported ages of respondents from May to September, with the greatest amount of variation occurring among the elderly age group -- those riders 62 or older. Senior citizens accounted for 10.3% of the respondents in May, but for only 7.5% in the follow-up survey. As previously noted in the section dealing with type of fare, a significant drop in senior citizen ridership as a direct result of the July fare increase seems unlikely in view of the steady growth in sales of senior citizen monthly passes and of the relatively low senior citizen cash fare. It does seem likely that extremely hot days such as experienced during the September survey would be particularly uncomfortable for the elderly and would prompt them to postpone discretionary travel by bus. If the heat were coupled with unhealthful air quality, as is usual in Los Angeles, senior citizens would tend to remain indoors.

TABLE VII
RESPONDENT AGE

	May		September	
Age	Number	Percent	Number	Percent
18 or less	755	23.4%	678	25.1%
19 to 21	432	13.4%	370	13.7%
22 to 25	444	13.7%	345	12.8%
26 to 30	390	12.1%	328	12.1%
31 to 35	217	6.7%	178	6.6%
36 to 40	175	5.4%	149	5.5%
41 to 45	116	3.6%	122	4.5%
46 to 50	124	3.8%	110	4.1%
51 to 55	134	4.1%	110	4.1%
56 to 61	110	3.4%	107	4.0%
62 or more	334	10.3%	203	7.5%
Total	3231	99.9%	2700	100.0%

GENDER

As in previous surveys, the majority of bus riders were found to be female -- 58.3% of the respondents in May and 57.2% in September. The recent Service Awareness Study had shown that females comprised approximately 60% of SCRTD's overall ridership. The UMTA Criteria Project had shown that over 59% of the riders on San Fernando Valley lines in 1975 were women. It appears that some aspects of SCRTD's rider profile remain relatively unchanged over time.

TABLE VIII
RESPONDENT GENDER

	May		September	
Gender	Number	Percent	Number	Percent
Male	1385	41.7%	1034	42.8%
Female	1934	58.3%	1383	57.2%
Total	3319	100.0%	2417	100.0%

HOUSEHOLD INCOME

It is apparent from Table IX that bus riders tend to come from relatively low income households. In May 74.3% of the respondents indicated household incomes below $15,000, and the percentage in September was 75.8%. Just over 58% of the respondents had household incomes below $10,000.

It has been estimated that the median family income in California in 1977 was $15,953.[5]

TABLE IX
HOUSEHOLD INCOME

Annual Income	May		September	
	Number	Percent	Number	Percent
Under $5000	771	32.0%	595	32.2%
$5000-$9999	636	26.4%	480	26.0%
$10000-$14999	383	15.9%	325	17.6%
$15000-$19999	235	9.7%	168	9.1%
$20000-$24999	183	7.6%	120	6.5%
$25000 or more	205	8.5%	159	8.6%
Total	2413	100.0%	1847	100.0%

NUMBER OF CARS IN HOUSEHOLD

Table X shows that over 36% of the respondents live in households with no car. The percentage of one car households was 34.9% in May and 37.2% in September. Two or more cars were owned by less than 30% of the respondents' households.

TABLE X
NUMBER OF CARS IN HOUSEHOLD

Number of Cars	May		September	
	Number	Percent	Number	Percent
None	1201	36.5%	964	36.4%
One	1150	34.9%	984	37.2%
Two	630	19.1%	473	17.9%
Three or more	311	9.4%	226	9.5%
Total	3292	99.9%	2647	100.0%

CAR AVAILABILITY

The measure of transit-dependency goes beyond a count of cars per household. The availability of a car to the respondent is often a more revealing indicator. When asked to indicate the main reason they ride the bus, 58.7% of the respondents in May said they had no car available. In September 61.3% so answered. These responses indicate a higher degree of transit-dependency than might be inferred from the number of no-car households reported by respondents.

Table XI shows other reasons given by respondents for riding the bus. No significant variation was detected between responses given in May and those in September.

TABLE XI
REASON FOR RIDING BUS

	May		September	
Reason	Number	Percent	Number	Percent
No Car Available	1632	58.7%	1552	61.3%
Prefer Bus	365	13.1%	341	13.5%
Economy	323	11.6%	302	11.9%
Convenience	324	11.6%	234	9.2%
Other	135	5.0%	103	4.1%
Total	2779	100.0%	2532	100.0%

SPANISH-SPEAKING RIDERS

Up to 15% of the households in Los Angeles county are Spanish-speaking. With more than 1.8 million Latin residents, the Los Angeles area has the sixth largest Spanish-speaking population in the world.[6] Nearly 80% of the Spanish residents in the area are of Mexican origin, another 13% originate in other Central or South American countries. About 8% are from Cuba or Puerto Rico.[7]

Studies have shown that Spanish-speaking immigrants tend to preserve their mother tongue to the extent that as many as 55% have only a 25% or less understanding of conversational English. Spanish is spoken in two-thirds of Spanish surname households.[8]

Table XII shows that between 14 and 18 percent of the respondents answered the Spanish-language version of the on-board questionnaire.

TABLE XII
SPANISH-LANGUAGE QUESTIONNAIRES

	May		September	
Language	Number	Percent	Number	Percent
Spanish	506	14.4%	520	18.1%
English	3016	85.6%	2351	81.9%
Total	3522	100.0%	2871	100.0%

HANDICAPPED RIDERS

Table XIII shows the percentage of respondents who claimed to have a handicap which makes it difficult to get to or use the bus. In May 6.2% of the respondents put themselves in this category; in September 4.8%.

Senior citizens are disproportionately represented in the group of handicapped riders. Table XIV indicates that in May 21.6% of the respondents who said they had some kind of handicap were 62 or older. Senior citizens had comprised only 10.3% of the total ridership. In September senior citizens made up 15% of the handicapped rider category, but were only 7.5% of the total number of respondents.

It appears that senior citizens are over-represented in the handicapped rider group by a factor of two.

TABLE XIII
HANDICAPPED RESPONDENTS

	May		September	
Handicapped	Number	Percent	Number	Percent
Yes	190	6.2%	112	4.8%
No	2871	93.8%	2214	95.2%
Total	3061	100.0%	2326	100.0%

TABLE XIV
HANDICAPPED RESPONDENTS BY AGE GROUP

	May		September	
Age Group	Number	Percent	Number	Percent
Under 62	134	78.4%	85	85.0%
62 or more	37	21.6%	15	15.0%
Total	171	100.0%	100	100.0%

RIDER EVALUATION OF SCRTD

In May 62.9% of the respondents gave SCRTD a "good" or "excellent" rating. This percentage remained relatively unchanged in September, indicating that the fare increase did not appear to have any long-term detrimental effect on riders' attitudes about SCRTD. Table XV shows in more detail how respondents rated SCRTD.

Table XVI indicates the nature of comments which respondents made about various aspects of SCRTD service. Overall, 12.7% of the comments made in May and 18% of the comments in September were positive. Conversely, 87.3% of the May comments and 82% of the September comments were negative.

Complaints concentrated mainly on topics such as crowded buses and having to wait too long for a bus (both summarized under the "headways" category), lack of service early or late in the day or on weekends ("service hours"), schedule adherence, and rude or reckless drivers. Complaints about high fares ranked after complaints about drivers and actually diminished in frequency after the fare increase. This occurrence does not indicate a high degree of concern about the higher fares.

TABLE XV
RESPONDENTS RATE SCRTD

	May		September	
Rating	Number	Percent	Number	Percent
Excellent	647	20.4%	554	21.6%
Good	1344	42.5%	1055	41.2%
Fair	939	29.7%	755	29.5%
Poor	236	7.5%	199	7.7%
Total	3166	100.01%	2563	100.0%