## SURVEY OF WEEKEND RIDERSHIP

## Summer 1980

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## MAJOR FINDINGS

1. RTD service has never achieved the high levels of 1976. The decline in weekend service levels has been more precipitous than the decline in weekday service.
2. The average daily cost of providing weekday service in 1980 was $62 \%$ higher than in 1976 . The average cost of weekend service was between $31 \%$ and $35 \%$ higher than it was in 1976.
3. Since 1976 the number of weekend boardings has increased at a faster rate than weekday boardings. As a result, the proportion of weekend boardings to weekday boardings has tended to increase.
4. The median age of weekend riders is about 28 years, just slightly higher than the 26 year median age of weekday riders.
5. The proportion of male riders on Sunday tends to be higher than on Saturday or on a weekday.
6. The increasing proportion of minority residents in the Los Angeles area is underscored by the results of the weekend survey. Overall 78 to $82 \%$ of the weekend riders are minorities.
7. The ethnic mix varies widely by bus line, depending on area served.
8. A majority of the Latino respondents to the weekend survey answered the Spanish-language version of the questionnaire -$56 \%$ on Saturday and $84 \%$ on Sunday.
9. The median household income level of weekend riders is at or below the poverty level. Sunday riders report the lowest median income, at less than $\$ 6000$. Satürday riders report a median income of $\$ 7250$, within the $\$ 7200$ to $\$ 8400$ range previously reported by weekday riders, but still below the 1979 poverty level of $\$ 7400$ for a family of four.
10. Median household income varies widely by bus line and area served, ranging from less than $\$ 5000$ to over $\$ 13,000$ among Saturday riders. The range among Sunday riders was narrower, from $\$ 5000$ to $\$ 9400$.
11. Median household income also tends to vary by ethnic background. Among Saturday riders, American Indians and Asians report the highest median incomes, followed by Anglos, Blacks and Latinos, in that order. The order changes somewhat among Sunday riders $=-$ with blacks reporting the highest median income, followed in order by Asians, Anglos, Latinos and American Indians.
12. A majority of weekend riders--51\% of Saturday riders and $60 \%$ of Sunday riders--live in households that do not own a car, as compared to only $37 \%$ of weekday riders in this category.
13. Automobile ownership tends to vary by ethnic background, but the most direct relationship occurs between household income and car ownership. At the lower end of the income scale there is less likelihood that the household will own a car. As income rises, so does the number of cars.
14. Although the percentage of cash boardings on Saturday does not vary significantly from the weekday level., cash boardings decline significantly on Sunday. Conversely, all types of passes show a proportinate increase in boardings on Sunday. There are indications that the proportion of pass boardings has been increasing steadily during the last five years.
15. Over half the weekend riders who pay cash fares do so because they do not ride the bus often enough to make the purchase of a monthly pass worthwhile.
16. Up to a quarter of the weekend riders paying cash fares say they cannot afford a monthly pass, suggesting a potential market for a weekly pass of over 50,000 riders.
17. About $8 \%$ of the weekend cash riders claim they don't know where to buy a pass and $5 \%$ say there is no convenient outlet where they might buy a pass.
18. Saturday riders average about five days per week of transit use, about the same as weekday ríders. Sunday riders tend to ride more frequently--about six days a week.
19. The frequency of transit use by weekend riders also tends to vary by different fare-type category. Among weekend riders who pay cash fares, the medicn frequency of transit use is five days per week. Saturday riders using a pass (except senior citizen or tourist passes) average six days of bus riding per week. Sunday riders using a pass (except express or tourist passes) average seven days on the buses.
20. Weekend pass users are the heaviest users of transit. They average more boardings per month than do pass users surveyed during a weekday. Weekend pass users average 97 to 100 boardings a month, as opposed to 87 boardings reported by weekday pass users.
21. The average number of monthly boardings varies by type of pass. Among Saturday riders, those using a handicap pass report about 80 boardings per month, and those using a college and vocational pass report about 114. Each of the other pass categories average between 98 and 100 uses per month. Among Sunday riders senior citizen pass riders report 75 boardings per month, and a small sample of handicap pass users report a median average of 148 boardings. Other pass users average between 83 and 105 boardings a month:
22. On weekends the mix of transit trip purposes shifts from the weekday work trip orientation (when $50 \%$ of the riders are traveling to or from work) toward increased shopping and social/recreational trips. On Saturday shopping trips
account for $28 \%$ of the trips and social/recreational trips for another $18 \%$. Work trips account for $37 \%$. Sunday trip purposes are $26 \%$ social/recreational, $20 \%$ shopping, $13 \%$ church, and $35 \%$ work. Trip purpose mix on both Saturday and Sunday vary by bus line.
23. The percentage of riders who walk to the bus is higher on Saturday than on a weekday ( $65 \%$ versus $60 \%$ ) and higher still on Sunday ( $70 \%$ ) . The percentage who transfer from another bus is correspondingly lower -- $28 \%$ on Saturday as opposed to $35 \%$ during the week and $26 \%$ on Sunday.
24. Most weekend riders have a favorable impression of RTD service, with $69 \%$ of the Saturday riders and $77 \%$ of the Sunday riders giving the service a rating of "somewhat favorable" or "very favorable."
25. The average weekend rider has been riding the RTD for about three years. Up to $28 \%$ have been riding less than a year, and another $28 \%$ have been riding for at least ten years.

## BACKGROUND AND OBJECTIVES

Weekend service has always been considered RTD's poor stepchild. Whenever economic conditions forced service cuts during the last five years, Saturday and Sunday services were the first to be cut, and they were cut more drastically than weekday services. Any measure of service which is examined shows that RTD service has never regained the levels enjoyed in 1976. The average number of buses in service, vehicle miles, vehicle hours and driver pay hours in 1980 were all at levels substantially loẅer than during comparable periods of 1976, and Table I shows that the rate of decline in weekend service has been substantially more precipitous than the decline in weekday service.

On an average weekday during the summer of 1980 , RTD was operating 2000 peak-hour buses and 1214 base-period buses. The decline from sumer 1976 levels was $2.9 \%$ and $11.4 \%$, respectively. The 968 buses operated during peak Saturday hours in 1980 and the 926 operated during the Saturday base represented respective declines of $20.3 \%$ and $23.8 \%$, however. The number of buses run on Sundays in 1980--726 peak and 678 base--had also declined since 1976 , by $19.9 \%$ and $2.5 .3 \%$ respectively.

The decrease in average vehicle miles on weekdays and weekends showed equally dramatic differences. The 335,200 vehicle miles operated on an average weekday in the last quarter of 1.980 were only $4.3 \%$ less
than the number of miles operated in 1976. Saturday's 198,400 miles were $17.5 \%$ off the level achieved in 1976, however, and Sunday's 151,600 miles were $21.2 \%$ off.

At 23,500, scheduled vehicle hours on an average weekday in 1980 were $5.6 \%$ less than in 1976. Vehicle hours on Saturday had declined $21.6 \%$, and on Sunday the number of vehicle hours was down 20.1\%. Driver pay hours showed similar decreases, with 1980 weekday levels off $9.7 \%$ from 1976. Saturday levels decreased $22.1 \%$ since 1976 , and the number of driver pay hours on an average Sunday in 1980 was $23 \%$ lower than the number in 1976.

Table $I$ also shows a vast difference in the rate of change in total operating costs. In 1980 the average daily cost of operating weekday services was over one million dollars, up $61.8 \%$ over the cost in 1976. Service operated on an average Saturday in 1980 cost $\$ 607,000$ per day, only $30.5 \%$ more than in 1976. Sunday service cost only $\$ 464,800$ per day in 1980 , $34.5 \%$ higher than 1976 costs.

Service levels from 1976 through 1980 are presented on a quarterly basis in Tables A-I through A-V in the Appendix.

In spite of the more severe service cuts made in weekend service over the last five years, the number of Saturday and Sunday boardings increased at a significantly faster rate than did
weekday boardings. The average number of weekday boardings during the final quarter of 1980 was $1,330,000,37.1 \%$ higher than the 970,000 boardings recorded in 1976. Saturday and Sunday boardings were up more than $44 \%$ during that time, however. Table II shows the steady increase in boardings experienced by RTD. The table also shows how weekend boardings have tended to increase as a proportion of weekday boardings. Overall during the last five years, boardings on an average Saturday comprised just over 54\% of average weekday boardings. In 1980 the average Saturday boarding figure ranged from $56.4 \%$ to nearly $60 \%$. Sunday boardings in 1980 also tended to gain in relation to weekday boardings, ranging from $35.8 \%$ to $39.4 \%$.

Over the past five years Market Research has conducted several surveys of RTD riders. With the exception of one 1979 survey of Sunday riders, all the surveys have been conducted on weekdays. RTD has a thorough knowledge of the trip patterns and demographic profiles of weekday riders, but virtually none about weekend riders. Weekend service has remained the poor stepchild. A survey of over 4,000 weekend riders on 38 bus lines was conducted by Market Research during the summer of 1980 to provide benchmark data on this important segment of the market for public transit. The analyses in this report strive to attain four main objectives :

1) Comparison between Saturday and Sunday riders in terms of demographic profile,
2) Comparison between Saturday and Sunday riders in terms of trip patterns,
3) Comparison between weekend and weekday riders in terms of demographic profile,
4) Comparison between weekend and weekday riders in terms of trip patterns.

## TABLE I

## 1980 Service Levels Compared to 1976-1979 Levels

| Service <br> Variable | 1976 | $\begin{array}{r} \text { Weel } \\ \text { \% Chans } \\ 1.977 \\ \hline \end{array}$ | $\begin{gathered} \text { from } \\ 1978 \\ \hline \end{gathered}$ | 197.9 | 1976 | $\begin{aligned} & \text { Satur } \\ & \text { \% Chang } \\ & 1977 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { cday } \\ & \text { ge from } \\ & 1978 \\ & \hline \end{aligned}$ | 1979 | 1976 | $\begin{gathered} \text { Sund } \\ \text { \% Chang } \\ 1977 \\ \hline \end{gathered}$ | lay <br> e from 1978 | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Buses-Peak | - 2.9\% | + 2.5\% | + 9.2\% | -. $3 \%$ | -20.3\% | - 1.9\% | + 4.4\% | +.7\% | -19.9\% | - 1.2\% | + 3.9\% | $+1.3 \%$ |
| No. of Buses-Base | -11.4 | - 6.8 | + 2.4 | -1.7 | -23.8 | - 5.7 | $+5.4$ | - 3.0 | -25.3 | - 7.4 | - 2.4 | - 5.0 |
| Actual <br> Vehicle <br> Miles | - 4.3 | $+2.3$ | $+5.0$ | -1.7 | -17.5 | - 4.7 | - . 9 | - 1.1 | -21. 2 | - 5.1 | - . 3 | - 1.4 |
| Scheduled Vehicle Hours | - 5.6 | $+1.3$ | $+4.9$ | 0 | -21.6 | - 3.3 | +1.4 | 0 | -20.1 | - 6.1 | $+.9$ | 0 |
| Driver <br> Pay Hours | - 9.7 | - 3.4 | $+5.7$ | -3.1 | -22.1 | - 9.3 | $+2.3$ | - 1:01 | $-23.0$ | -12.7 | $+8.3$ | - 4.0 |
| Operating Cost | +61.8 | +62.0 | +53.2 | +6.9 | +30.5 | +43.2 | +42.2 | +10.8 | +34.5 | +47.8 | +45.0 | $+7.9$ |
| Boardings | +37.1 | +27.9 | +20.9 | +12.7 | +44.2 | +44.2 | +31.6 | +23.0 | +44.1 | +40.0 | +32.4 | $+25.6$ |

TABLE II
RTD System-Wide
Average Estimated Boardings


Source: Statistical Digest, Service Analysis Section
*Strike

## DEMOGRAPHIC CHARACTERISTICS OF

 WEEKEND:RIDERS
## Age of Riders

Overall, there is no apparent significant difference in the age distribution of Saturday patrons and those who use the RTD service on Sunday. Table III profiles Saturday riders by age and Table IV does the same for Sünday riders. On either day approximately $56 \%$ of the riders are under 30 years old. The median age of Saturday riders is 27.9 , not significantly different than the 28.1 median age of Sunday riders. A 1979 survey of 900 Sunday riders on nine bus lines found that the median age was 27.8 .

Major studies of weekday ridership in 1978 and 1979 analyzed the responses of nearly 12,300 riders on 56 regular-service lines and found that the median age was about 26 . Weekend riders do not appear to be significantly older or younger than weekday riders.

TABLE III
Age of Saturday Riders by Bus Line

| Line | Under 19 | 19-2.9 | 30-39 | 40-49 | 50-61 | 62土 | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 17.9\% | 35.7\% | 17.9\% | 3.6\% | 10.7\% | 14.3\% | 100.1\% | 28.9 | 28 |
| 8 | 14.3 | 38.1 | 19.0 | 19.0 | 9.5 | , | 99.9 | 28.4 | 21 |
| 17 | 20.0 | 25.0 | 17.5 | 15.0 | 15.0 | 7.5 | 100.0 | 32.9 | 40 |
| 18 | 28.4 | 32. 4 | 14.7 | 11.8 | 5.9 | 6.9 | 100.1 | 26.3 | 102 |
| 25 | 24.4 | 25.6 | 14.6 | 15.9 | 8.5 | 11.. 0 | 100.0 | 29.9 | 82 |
| 28 | 16.4 | 26.9 | 10.4 | 14.9 | 10.4 | 20.9 | 99.9 | 36.4 | 66 |
| 34 | 25.8 | 39.2 | 16.5 | 5.2 | 11.3 | 2.1 | 100.1 | 25.8 | 97 |
| 49 | 24.8 | 43.1 | 15. 0 | 7.8 | 5.9 | 3.3 | 99.9 | 25.4 | 150 |
| 73 | 23.6 | 49.1 | 12.7 | 5.5 | 3.6 | 5.5 | 100.0 | 24.9 | 55 |
| 75 | 14.5 | 43.6 | 20.0 | 5.5 | 7.3 | 9.1 | 100. 0 | 28.0 | 165 |
| 81 | 25.8 | 46.0 | 8.9 | 5.6 | 4.8 | 8.9 | 100.0 | 24.8 | 123 |
| , 88 | 23.7 | 42.3 | 13.4 | 6.2 | 7.2 | 7.2 | 100.0 | 25.8 | 96 |
| - 94 | 9.6 | 43.0 | 23.0 | 5.9 | 9.6 | 8.9 | 100.0 | 29.3 | 135 |
| $\underset{1}{\omega} 142$ | 30.2 | 22.4 | 23.3 | 6.0 | 9.5 | 8.6 | 100.0 | 28.7 | 115 |
| 151 | 31.7 | 36.5 | 11.1 | 4.8 | 6.3 | 9.5 | 99.9 | 24.5 | 62 |
| 155 | 25.0 | 50.0 | 16.7 | 8.3 | -- | -- | 100.0 | 24.5 | 12 |
| 160 | 22.0 | 29.3 | 9.8 | 9.8 | 7.3 | 22.0 | 100.2 | 29.5 | 41 |
| 163 | 18.8 | 40.2 | 13.4 | 9.8 | 7.1 | 10.7 | 100.0 | 27.5 | 112 |
| 432 | 25.5 | 28.3 | 14.2 | 11.3 | 12.3 | 8.5 | 100.1 | 28.5 | 106 |
| 435 | 31.:8 | 31.8 | 7.1 | 2.4 | 8.2 | 18.8 | 100.1 | 25.3 | 85 |
| 440 | 20.7 | 42.2 | 12.1 | 6.0 | 6.9 | 12.1 | 100.0 | 25.9 | 116 |
| 488 | 10.0 | 50.0 | 10.0 | 10.0 | 16.7 | 3.3 | 100.0 | 27.8 | 30 |
| 490 | 10.1 | 38.8 | 14.0 | 7.8 | 9.3 | 20.2 | 100.2 | 30.8 | 129 |
| 493 | 30.0 | 30.0 | 20.0 | -- | -- | 20.0 | 100.0 | 22.6 | 20 |
| 810 | 25.6 | 39.5 | 11.6 | 4.7 | 7.0 | 11.6 | 100.0 | 25.8 | 43 |
| 813 | 27.0 | 27.8 | 23.8 | 5.6 | 5.6 | 10.3 | 100.1 | 28.1 | 126 |
| 826 | 28.4 | 34.3 | 11.9 | 7.5 | 13.4 | 4.5 | 100.0 | 25.9 | 67 |
| 832 | 32.4 | 36.6 | 16.9 | 5.6 | 2. 8 | 5.6 | 99.9 | 24.3 | 71 |
| 836 | 20.9 | 39.6 | 19.8 | 12.1 | 4.4 | 3.3 | 100.1 | 27.1 | 91 |
| 860 | 28.0 | 46.0 | 4.0 | 10.0 | 4.0 | 8.0 | 100.0 | 24.3 | 50 |
| 871 | 15.9 | 35.2 | 20.5 | 9.1 | 6.8 | 12.5 | 100.0 | 29.7 | 88 |
| OVERALL | 20.4\% | 36.5\% | 15.5\% | 9.0\% | 8.0\% | 10.5\% | 99.9\% | 27.9 | 2524 |

35.1\% Response Rate

TABLE IV
Age of Sunday Riders by Bus Line


## Gender

Surveyors who distributed questionnaires during the weekend survey were instructed to provide data on three observable variables whenever a rider refused to answer a questionnaire. Surveyors recorded the rider's gender, ethnic group and boarding point. Because of its position at the top of the questionnaire, i.t was more convenient for the surveyor to answer the rider gender question than the other two variables, so the "response rate ${ }^{\text {i" }}$ on the gender question was nearly $90 \%$. In the future the questionnaire will be revised so that these three observable variables are convenientily grouped together to increase frequency of response.

There is a significant difference in the gender mix on RTD buses on Saturdays and Sundays. A significantly larger proportion of the riders on a Sunday are male. Males represent only $45.7 \%$ of the riders on Saturday, and $50.5 \%$ of the riders on Sunday. Findings of the 1979 Sunday survey were not significantly different than those of the 1980 survey of Sunday riders.

In terms of gender mix, Saturday riders do not appear to be significantly different than weekday riders on regular-service lines, where roughly $42 \%$ of the riders are male. Sunday riders, however, do display a significantly different gender mix than do weekday riders.

Table V shows gender mix by line on Saturday and Table VI imparts this information for the Sunday sample.

TABLE V
Gender of Saturday Riders

| Line | Male | Female | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 41.4\% | 58.6\% | 100.0\% | 399 |
| 8 | 35.9 | 64.1 | 100.0 | 64 |
| 17 | 41.9 | 58.1 | 100.0 | 129 |
| 18 | 44.5 | 55.5 | 100.0 | 191 |
| 2.5 | 42.2 | 57.8 | 100.0 | 490 |
| 28 | 45.7 | 54.3 | 100.0 | 429 |
| 34 | 47.8 | 52.2 | 100.0 | 159 |
| 49 | 45.1 | 54.9 | 100.0 | 266 |
| 73 | 45.5 | 54.5 | 100.0 | 134 |
| 75 | 49.0 | 51.0 | 100.0 | 447 |
| 81 | 47.5 | 52.5 | 100.0 | 257 |
| 88 | 46.0 | 54.0 | 100.0 | 150 |
| 94 | 54.0 | 46.0 | 100.0 | 504 |
| 142 | 40.2 | 59.8 | 100.0 | 122 |
| 151 | 35.2 | 64.8 | 100.0 | 71 |
| 155 | 36.0 | 64.0 | 100.0 | 25 |
| 160 | 39:8 | 60.2 | 100.0 | 88 |
| 163 | 45.8 | 54.2 | 100.0 | 297 |
| 432 | 47.5 | 52.5 | 100.0 | 179 |
| 435 | 33.8 | 66.2 | 100.0 | 157 |
| 440 | 56.1 | 43.9 | 100.0 | 230 |
| 488 | 46.9 | 53.1 | 100.0 | 81 |
| 490 | 43.8 | 56.2 | 100.0 | 153 |
| 493 | 30.2 | 69.8 | 100.0 | 43 |
| 810 | 51.9 | 48.1 | 100.0 | 189 |
| 813 | 31.7 | 68.3 | 100.0 | 186 |
| 826 | 47.3 | 52.7 | 100.0 | 349 |
| 832 | 45.0 | 55.0 | 100.0 | 151 |
| 836 | 50:0 | 50.0 | 100.0 | 222 |
| 860 | 51.1 | 48.9 | 100.0 | 94 |
| 871 | 45.3 | 54.7 | 100.0 | 161 |
| OVERALL | 45.7\% | 54.3\% | 100.0\% | 6417 |

89. 2\% Response Rate

Precision $=.015$ at $95 \%$ Confidence Level

TABLE VI

## Gender of Sunday Riders

| Line | Male | Female |  | Total | No. of Respondents |
| ---: | :--- | :--- | :--- | :---: | :---: |
| 8 | $56.7 \%$ | $43.3 \%$ |  | $100.0 \%$ | 300 |
| 25 | 49.9 | 50.1 |  | 100.1 | 417 |
| 26 | 43.3 | 56.7 | 100.0 | 457 |  |
| 28 | 54.3 | 45.7 | 100.0 | 455 |  |
| 86 | 49.1 | 50.9 | 100.0 | 230 |  |
| 93 | 51.2 | 48.8 | 100.0 | 244 |  |
| 487 | 56.0 | 44.0 | 100.0 | 50 |  |
| 491 | 16.7 | 83.3 | 100.0 | 12 |  |
| 496 | 52.2 | 47.8 | 100.0 | 92 |  |
| 828 | 49.4 | 50.6 | 100.0 | 356 |  |
| 871 | 54.3 | 45.7 | 100.0 | 127 |  |
| : OVERALL | $50.5 \%$ | $49.5 \%$ | $100.0 \%$ | 27.40 |  |

86. $2 \%$ Response Rate

Precision $=.02$ at $95 \%$ Confidence Level

## Ethnic Background

The 1980 Survey of Weekend Ridership confirms the effects of minority predominance in Los Angeles County. Overall, at least $77.5 \%$ of the Saturday riders are members of a minority. A significantly higher proportion of Sunday riders--81.6\%--are minorities.

The largest group of weekend riders by far is the Latinos. They comprise $52.6 \%$ of the Saturday ridership and an astounding $61.7 \%$ of the Sunday riders. In comparison to their $30 \%$ representation among Los Angeles population, Latinos provide a vastly disproportionate share of weekend transit patronage.

Black patronage of Saturday transit service, on the other hand, appears to be nearly proportionate with their overall representation in the population. Sunday patronage by blacks appears to be somewhat lower than their distribution among the population would suggest., possibly indicating a reluctance to respond to sürveys.

Asians' and Pacific Islanders' share of weekend ridership remains fairly constant on Saturday and Sunday at between $3.6 \%$ and $3.9 \%$. This is lower than would be expected from the Asian share of city and county population- $7 \%$ and $5.5 \%$ respectively.

Tables VII and VIII show clearly the influence of service area on the ridership patterṇs of individual büs lines. Minority
ridership varies greatly by line. Black ridership on San Fernaṇdo Valley lines on Saturday is virtually nil, but as high as $82 \%$ on the 73 line. Latino ridership on Saturday ranges from only $3.2 \%$ on the 73 line, but up to $78.2 \%$ on the 28 line. That the majority of RTD's Latino riders prefer to communicate in Spanish is irrefutable considering the evidence in Tables A-VI and A-VII in the appendix. Over $56 \%$ of the Latino riders surveyed on Sunday, and nearly $84 \%$ of those sürveyed on Saturday, answered the Spanish-language version of the questionnaire.

The question of ethnic background has not yet been addressed on surveys of weekday service, but it has been included on the 1981 survey of 50 bus lines.

In the best tradition of 1984's Newspeak, a headline in the Los Angeles Times of April 13, 1980, said that "Minorities Take Over This Year as Majority." While a majority of minorities may pose a conundrum to confound language purists, demographers explain that Los Angeles is in transition "from a predominantly white population to a conglomeration of whites, black, Latinos, Asians and others." The following graph illustrates ethnic trends in the population of Los Angeles City and County over the last thirty years.


Hispanics have been increasing the most in absolute numbers and now comprise nearly $30 \%$ of the city and county population. By 1984 city demographers expect that Latinos will be a full third-$35.5 \%$--of the people in Los Angeles.

Blacks comprise the next largest minority group in Los Angeles, but their rate of growth has been slower. In 1980 blacks accounted for $21.5 \%$ of the city population and $16 \%$ of the county population.

Although Asians have been in California since Gold Rush days, their rate of growth in Los Angeles was relatively slow until the mid-1960's. By 1980 Asians represented about $7 \%$ of the city population and $5.5 \%$ of the county.

The result of the large increase in minority populations is that concentrations of Latinos, blacks and others have become evident over vast areas of Los Angeles. Minority dominance has continued to spread until the percentage of predominantly Anglo communities has been reduced from $88 \%$ to $41 \%$. Continuance of current trends will ensure that in the near future only the San Fernando Valley and West Los Angeles will have substantial Anglo populations. The following maps illustrate shifts in Los Angeles population since the 1950's.


Times chare by lon Clen ant

40.8\% Response Rate

## Ethnic Background of Sunday Riders

|  | Line | White | Black | Latino | Asian \& Pacific Islanders | Indian | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 4.0\% | 35.2\% | 56.4\% | 4.0\% | -- | . $3 \%$ | 99.9\% | 298 |
|  | 25 | 25.4 | 2.8 | 56.3 | 4.2 | 8.5\% | 2.8 | 100.0 | 71 |
|  | 26 | 9.1 | 10.4 | 73.4 | 4.5 | 1.3 | 1.3 | 100.0 | 154 |
|  | 28 | 8.7 | 2.2 | 84.0 | 3.9 | . 4 | . 9 | 100.1 | 231 |
|  | 86 | 40.9 | 4.3 | 48.7 | 6.1 | -- | -- | 100.0 | 115 |
|  | 93 | 52.7 | 5.5 | 34.5 | 5.5 | 1.8 | -- | 100.0 | 55 |
| $\begin{gathered} 1 \\ \text { On } \end{gathered}$ | 487 | 29.6 | 7.4 | 33.3 | 14.8 | 11.1 | 3.7 | 99.9 | 27 |
|  | 491 | 66.7 | -- | 22.2 | -- | -- | 11.1 | 100.0 | 9 |
|  | 496 | 33.9 | 23.7 | 32. 2 | 3.4 | 5.1 | 1.7 | 100.0 | 59 |
|  | 828 | 14.1 | 49.6 | 34.0 | . 3 | -- | 2.0 | 100.0 | 347 |
|  | 871 | 51.9 | 24.1 | 22.2 | -- | 1.9 | -- | 100.1 | 54 |
|  | OVERALL | 17.3\% | 14.5\% | 61.7\% | 3.9\% | 1.5\% | 1.2\% | 100.0\% | 1365 |

42.9\% Response Rate

## Household Income

The 1980 Survey of Weekend Ridership confirms findings of previous surveys of RTD riders with regard to household income. RTD riders tend to be from low income households. The 1978 Service Awareness Study and on-board surveys of nearly 10,000 bus riders in 1978 and 1979 estimated that the median household income of RTD regular-service riders was in the $\$ 7200$ to $\$ 8400$ range. By way of comparison, the 1979 median household effective buying income throughout Los Angeles County was estimated to be $\$ 18,680$.* A study in 45 cities around the world by Union Bank of Switzerland estimated the Los Angeles average income to be $\$ 19,127$. In 1979, the income in the US was $\$ 19,684$.

Table IX shows that the median household income of Saturday riders--at $\$ 7250-s t i l l$ falls within the low income range. The median household income of Sunday riders, seen in Table $X$, is significantly lower--\$5970. In 1979 the poverty line for a
*Median Household Effective Buying Income: Personal income less personal tax and nontax payments. Personal income is the aggregate of wages and salaries, other labor income (such as employer contributions to private pension funds), proprietors income, rental income, dividends paid by corporations, personal interest income from all sources, and transfer payments (such as pensions and welfare assistance). Deducted from this total are personal taxes (federal, state, and local), nontax payments (such as fines, fees, penalties), and personal contributions for social insurance. Source: Survey of Buying Power, Sales and Marketing Management.
family of four was set by the Census Bureau at \$7412. A majority of RTD riders have household incomes which place them below or near the poverty line.

Of coürse, median income varies by bus line, probably as a reflection of area served. The survey of Saturday ridership found median incomes of less than $\$ 5000$ on the 2 and 49 lines and incomes of $\$ 12,500$ to more than $\$ 13 ; 000$ on the 860 line and on four San Fernando Valley lines--the $81,88,151$ and 155.

The range of incomes reported by Sunday riders was much narrower--from $\$ 5000$ on the 491 line to only $\$ 9380$ on the 871.

Median family income in Los Angeles varies by ethnic background, and this variation can also be seen among RTD weekend riders. The following graph, which appeared in the Los Angeles Times on April 13, 1980, shows how income varied by ethnic background from 1950 through 1977:


In 1977, according to the most recent estimate by the Los Angeles Community Development Department, the median income of Anglo families was $\$ 17,834$, followed by Asian families at $\$ 15,256$. Latinos and blacks did not fare nearly as well. "The median family income for Latinos was \$9969 and for blacks $\$ 8430$. . . Between 1970 and 1977, income levels of Anglo families increased more than twice as fast as those of Latino and black families. A quarter of all Latino and black families are in poverty. Latino families in poverty doubled between 1970 and 1977.
" (In 1977) $45.7 \%$ of all those on welfare were black. The County Department of Social Services estimated that 243,900 blacks and 157,532 Latinos were receiving Aid to Families with Dependent Children in April, 1979--(as compared to 122,921 Anglos). . .

[^0]earned less than $\$ 10,000$ a year. Median family income northwest of Watts fell to \$5887--almost $\$ 8140$ below the city-wide median and $\$ 2540$ below the city median for blacks. The area had the lowest income per household of any in the city. The housing supply declined; yet vacancy rates stayed the highest in the city. 'These vacancy rates,' the division reports, 'are certainly related to the deteriorating housing stock! Nonetheless; home construction showed a steady decline. 'The increasing gap between this and other communities in progress toward reducing poverty is alarming;'the division reports. 'It shows the least encouraging economic picture of any in the city.'
"One Latino area, too, is particularly poor. It is eight square miles of East Los Angeles, only four miles from the Civic Center and at the heart of what is believed to be the heaviest Latino concentration--91\%-in the United States. The East Los Angeles Community Union. . .found in a 1976 study that unemployment in the area hit $17 \%$, twice the overall county average and $4 \%$ higher than the city's Latino average; 100,000 hours of employment per week were needed to take care of underemployment alone; $78 \%$ of the workers had to find jobs outside the area; workers were so low-skilled that only $10 \%$ could handle managerial or professional jobs; $25 \%$ of the households had no salaried income at all; nearly $70 \%$ had no savings at all; . . $75 \%$ of the residents said the biggest need was low and moderate-income housing.
"Despite all this, the area recejved less from the government in services, welfare and housing ( $\$ 56.3$ millioñ)."*

This depressing picture of poverty in the midst of plenty has a direct bearing on RTD, for a majority of the weekend transit riders belong to disadvantaged minority groups. Table XI shows that median family incomes does indeed vary by the ethnic background of Saturday riders. Asian and American Indian respondents report median family incomes considerably above those reported by all other groups, including Anglos. Among Anglo riders the median is nearly $\$ 9500$, as compared to $\$ 8135$ among blacks and only $\$ 5138$ among Latino respondents.

As shown in Table XII the survey of Sunday riders shows some significant changes in the income picture. Overall, the median income drops significantly, from \$7519 to only \$5942. Significant drops also occur among Anglo, Asian and American Indian riders. A significant rise occurs in median family income reported by black riders--from $\$ 8135$ to $\$ 9472$. The median income among Latinos remains virtually unchanged.

[^1]
27.0\% Response Rate

TABLE X

## Household Income of Sunday Riders

|  | Line | Under $\$ 5000$ | $\begin{aligned} & \$ 5000- \\ & \mathbf{\$} 9999 \\ & \hline \end{aligned}$ | $\begin{aligned} & \$ 10000- \\ & \$ 1499.9 \\ & \hline \end{aligned}$ | $\begin{aligned} & \$ 15000- \\ & \$ 19999 \\ & \hline \end{aligned}$ | $\begin{aligned} & \$ 20000- \\ & \$ 24999 \\ & \hline \end{aligned}$ | \$25000+ | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 39.5\% | 28.4\% | 13.6\% | 6. $2 \%$ | 7.4\% | 4.9\% | 100.0\% | \$6,850 | 81 |
|  | 25 | 44.4 | 29.6 | 14.8 | 1.9 | 7.4 | 1.9 | 100.0 | 5,940 | 54 |
|  | 26 | 45.5 | 33.0 | 11.4 | 2.3 | 2.3. | 5.7 | 100.2 | 5, 6.90 | 88 |
|  | 28 | 47.2 | 30.2 | 12.3 | 4.7 | 3.8 | 1.9 | 100.1 | 5,470 | 106 |
|  | 86 | 39.0 | 33.8 | $15 . .6$ | 6.5 | 5.2 | -- | 100.1 | 6,640 | 77 |
|  | 93 | 47.8 | 26.1 | 15.2 | 2.2 | 2.2 | 6.5 | 100.0 | 5,420 | 46 |
| $\stackrel{\underset{\sim}{\omega}}{\sim}$ | 487 | 44.4 | 27.8 | 11.1 | 11.1 | 5.6 | -- | 100.0 | 6,000 | 18 |
|  | 491 | 50.0 | 16.7 | -- | 33.3 | -- | -- | 100.0 | 5,000 | 6 |
|  | 496 | 31.8 | 25.0 | 13.6 | 13.6 | 11.4 | $4 . .5$ | 99.9 | 8,180 | 44 |
|  | 828 | 40.8 | 15.8 | 13.2 | 10.5 | 10.5 | 9.2 | 100.0 | 7,920 | 76 |
|  | 871 | 18.2 | 36.4 | 15.9 | 6.8 | 11.4 | 11.4 | 100.1 | 9,380 | 44 |
|  | OVERALL | 44.3\% | 29.4\% | 13.0\% | 4.5\% | 4.5\% | 4.4\% | 100. $1 \%$ | \$5,970 | 640 |

20.1\% Response Rate

TABLE XI
Household Income of Saturday Riders
By Ethnic Background

|  | Under $\$ 5000$ | $\begin{gathered} \$ 5000- \\ 9999 \\ \hline \end{gathered}$ | $\begin{gathered} \$ 10000 \\ 14999 \\ \hline \end{gathered}$ | $\begin{gathered} \$ 15000- \\ 19999 \\ \hline \end{gathered}$ | $\begin{gathered} \$ 20000- \\ 24999 \\ \hline \end{gathered}$ | $\begin{aligned} & \$ 25000 \\ & \& \text { Over } \\ & \hline \end{aligned}$ | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White | 27.7\% | 24.8\% | 15.5\% | 10.8\% | 7.5\% | 13.7\% | 100.0\% | \$ 9,496 | 656 |
| Black | 34.7 | 24.4 | 17.4 | 9.6 | 6.1 | 7.8 | 100.0 | 8,135 | 494 |
| Latino | 49.2 | 28.9 | 11.2 | 3.8 | 4.8 | 2.1 | 100.0 | 5,138 | 588 |
| Asian \& Pacific Islanders | 23.7 | 16.0 | 18.6 | 16.6 | 13.2 | 12.0 | 100.1 | 12,769 | 98 |
| American Indian | 19.8 | 20.6 | 4.3 | 37.6 | 6.7 | 11.0 | 100.0 | 15,705 | 33 |
| Other | 17.3 | 23.1 | 2.:5 | -- | 52.5 | 4.6 | 100.0 | 20,676 | 14 |
| OVERALL | 37.0\% | 25.8\% | 14.2\% | 8.7\% | 6.7\% | 7.7\% | 100.1\% | \$ 7,519 | 1,883 |

26.2\% Response Rate

Household Income of Sunday Riders
By Ethnic Background

|  |  | Under $\$ 5000$ | $\begin{array}{r} \$ 5000- \\ \hline 9.999 \\ \hline \end{array}$ | $\begin{gathered} \$ 10000- \\ 14999 \\ \hline \end{gathered}$ | $\begin{gathered} \$ 15000- \\ 19.999 \\ \hline \end{gathered}$ | $\begin{aligned} & \$ 20000- \\ & 24999 \\ & \hline \end{aligned}$ | \$25000+ | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White | 44.1\% | 21.5\% | 14.9\% | 9.0\% | 4.3\% | 6.2\% | 100.0\% | \$6,372 | 175 |
|  | Black | 30.5 | 21.8 | 14.6 | 11.1 | 9.8 | 12.3 | 100.1 | 9,472 | 122 |
|  | Latino | 48:7 | 35.5 | 11.0 | 1.3 | 2:1 | 1.5 | 100.1 | 5,183 | 283 |
|  | Asian \& Pacific Islanders | 33.6 | 21.6 | 19.2 | 4.5 | 10.5 | 10.7 | 100.1 | 8,796 | 29 |
| $\stackrel{1}{\omega}$ | American <br> Indian | 61.8 | 17.4 | 8.5 | -- | 12.3 | -- | 100.0 | 4,045 | 13 |
| $\stackrel{1}{1}$ | Other | 15.2 | 39.0 | 16.6 | -- | 29.2 | -- | 100.0 | 9,462 | 8 |
|  | OVERALL | 44:5\% | 29.2\% | 12.9\% | 4.5\% | 4.5\% | 4.4\% | 100.0\% | \$5,942 | 630 |

19.8\% Response Rate

## Household Size

Table XIII shows the household size of Saturday riders. Overall, $15 \%$ of the riders live alone, and another $22 \%$ live with one other person. Just over $28 \%$ live in households of five or more persons. These figures are not significantly different from those pertaining to regular-service weekday riders surveyed in 1979.

Table XIV shows that the household size of Sunday riders does not vary from the findings for Saturday. Approximately $17 \%$ live alone, and $24 \%$ live with one other person. Aṇother $29 \%$ live in households of five or more persons.





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$\stackrel{\circ}{1} 0$


## Household Size of Sunday Riders

| Line | One | Two | Three | Four | Five | Six | Seven | Eight | Nine | Ten or More | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 22.9\% | 21.9\% | 16.2\% | 12.4\% | 10.5\% | 6.7\% | 4.8\% | 1.0\% | 1.9\% | 1.7\% | 100.0\% | 3 | 105 |
| 25 | 12.9 | 19.4 | 9.7 | 17.7 | 9.7 | 11.3 | 4.8 | 1.6 | 1.6 | 11.3 | 100.0 | 4 | 62 |
| 26 | 9.6 | 19.1 | 17.4 | 17.4 | 7.0 | 5.2 | 10.4 | 7.8 | 3.5 | 2.6 | 100.0 | 4 | 115 |
| 28 | 17.2 | 20.1 | 17.9 | 12.7 | 10.4 | 9.7 | 2.. 2 | 3.0 | 2.2 | 4.6 | 100.0 | 3 | 134 |
| 86 | 24.3 | 31.1 | 10.7 | 11.7 | 11.7 | 6.8 | 1.9 | 1.9 | -- | -- | 100.1 | 2 | 103 |
| 93 | 26.0 | 44.0 | 12.. 0 | 8.0 | 6.0 | 2.0 | -- | 2.0 | -- | -- | 100.0 | 2 | 50 |
| 487 | 40.9 | 4.5 | 18.2 | 9.1 | 4.5 | 4.5 | -- | 18.2 | -- | -- | 99.9 | 3 | 22 |
| 491 | 25.0 | 50.0 | 12.5 | 12.5 | -- | -- | -- | -- | -- | -- | 100.0 | 2 | 8 |
| 496 | 28.8 | 13.5 | 19.:2 | 15.4 | 13.5 | 9.6 | -- | -- | -- | -- | 100.0 | 3 | 52 |
| 828 | 11.0 | 22.0 | 21.0 | 14.0 | 9.0 | 9.0 | 6.0 | 5.0 | 1.0 | 2.0 | 100.0 | 3 | 100 |
| 871 | 25.9 | 24.1 | 18.5 | 16.7 | 7.4 | 5.6 | 1.9 | -- | -- | -- | 100.1 | 2 | 54 |
| JVERALL | 17.3\% | 23.6\% | 16. 1\% | 13.9\% | 8.5\% | 6.9\% | 4.6\% | 4.3\% | 1.9\% | 2.9\% | 100.0\% | 3 | 805 |

## Number of Cars in Household

Table XV indicates that $51 \%$ of the Saturday riders live in households that do not own an automobile. This figure is significantly higher than was found among regular-service weekday riders in 1978 . Only about $37 \%$ of weekday riders said they had no car in their household.

The percentage of no-car households is even higher among Sunday riders, as shown in Table XVI. Nearly $60 \%$ of the riders on Sunday report having no car in the household. This percentage is not significantly different than the $58.5 \%$ found in the 1979 Survey of Sunday riders.

Automobile ownership tends to vary with the ethnic background of the bus rider's household. Among Saturday riders, Anglos have the highest percentage of no-car households--53.6\%--followed by Latinos at $52 \%$ and Blacks at $48.8 \%$. Significantly smaller percentages of Asians and Pacific Islanders and American Indians report having no car in the household. Among Asians and Pacific Islanders 42.5\% say there is no car. Only $36.2 \%$ of American Indian riders say their household has no car. Table XVII provides detail by line.

Among Sunday riders all ethnic groups except Blacks report a significant increase in the percentage of households with no car, as
seen in Table XVIII. Nearly $80 \%$ of the small sample of American Indians have no car, and $60.8 \%$ of the Latino riders are in the same situation. The Asian and Pacific Islander group report that $59.6 \%$ live in a household without cars, and $59 \%$ of the White respondents have no car. Among Blacks there is no significant change in the percentage of no-car households.

As might be expected, the primary determinant of automobile ownership seems to be household income. Tables XIX and XX show the strong relationship between income and the number of cars in a household. Among Saturday riders, the median income of households without a car is only about $\$ 5000$. Households with one car claim a median income of nearly $\$ 8900$, while the figure for those with two or three cars is $\$ 13,050$ and $\$ 19,160$, respectively. A similar relationship between income and cars exists among Sunday riders. No-car households have a median income of only about $\$ 4700$, while one car households earn an average of $\$ 8500$ Households with two cars show a $\$ 10,400$ median income. The median income of households with three or more cars, however, drops back into the $\$ 8900$ range.

TABLE XV
Number of Cars in Households of Saturday Riders
By Bus Line

| Line | None | One | Two | Threet | Total | No. of <br> Respondents |
| ---: | :--- | :--- | :--- | :--- | :--- | ---: |
| 2 | $63.6 \%$ | $21.2 \%$ | $6.1 \%$ | $9.1 \%$ | $100.0 \%$ | 33 |
| 8 | 42.3 | 34.6 | 15.4 | 7.7 | 100.0 | 26 |
| 17 | 42.5 | 27.5 | 22.5 | 7.5 | 100.0 | 40 |
| 18 | 46.8 | 22.0 | 22.9 | 8.3 | 100.0 | 109 |
| 25 | 49.4 | 28.1 | 14.6 | 7.9 | 100.0 | 89 |
| 28 | 56.0 | 28.0 | 8.0 | 8.0 | 100.0 | 75 |
| 34 | 47.3 | 31.3 | 15.2 | 6.3 | 100.1 | 112 |
| 49 | 65.9 | 22.4 | 8.8 | 2.9 | 100.0 | 170 |
| 73 | 41.3 | 20.6 | 23.8 | 14.3 | 100.0 | 6.3 |
| 75 | 54.9 | 25.3 | 14.8 | 4.9 | 99.9 | 182 |
| 81 | 40.6 | 24.8 | 21.1 | 13.5 | 100.0 | 133 |
| 88 | 44.1 | 31.5 | 15.3 | 9.0 | 99.9 | 111 |
| 94 | 53.3 | 32.7 | 10.7 | 3.3 | 100.0 | 150 |
| 142 | 64.4 | 22.2 | 6.7 | 6.7 | 100.0 | 45 |
| 151 | 37.7 | 32.8 | 14.8 | 14.8 | 100.1 | 61 |
| 155 | 57.1 | 28.6 | 7.1 | 7.1 | 99.9 | 14 |
| 160 | 40.9 | 34.1 | 15.9 | 9.1 | 100.0 | 44 |
| 163 | 46.6 | 28.8 | 15.3 | 9.3 | 100.0 | 118 |
| 432 | 44.6 | 27.7 | 19.6 | 8.0 | 99.9 | 112 |
| 435 | 41.9 | 29.0 | 18.3 | 10.8 | 100.0 | 93 |
| 440 | 53.1 | 25.0 | 14.1 | 7.8 | 100.0 | 128 |
| 488 | 32.3 | 32.3 | 19.4 | 16.1 | 100.1 | 31 |
| 490 | 51.5 | 24.6 | 18.5 | 5.4 | 100.0 | 130 |
| 493 | 54.5 | 22.7 | 18.2 | 4.5 | 99.9 | 22 |
| 810 | 47.9 | 18.8 | 20.8 | 12.5 | 100.0 | 48 |
| 813 | 47.0 | 15.7 | 16.4 | 20.9 | 100.0 | 134 |
| 826 | 38.9 | 40.3 | 16.7 | 4.2 | 100.1 | 72 |
| 832 | 44.9 | 29.5 | 17.9 | 7.7 | 100.0 | 78 |
| 836 | 44.4 | 36.4 | 13.1 | 6.1 | 100.0 | 99 |
| 860 | 30.8 | 38.5 | 21.2 | 9.6 | 100.1 | 52 |
| 871 | 45.4 | 32.0 | 13.4 | 9.3 | 100.1 | 97 |
| $0 V E R A L$ | $51.0 \%$ | $28.2 \%$ | $13.2 \%$ | $7.5 \%$ | $99.9 \%$ | 2,671 |

37.1\% Response Rate

TABLE XVI
Number of Cars in Households of Sunday Riders

## By Buis Line

| Line | None | One | Two | Threet | Total | No. of <br> Respondents |
| ---: | :--- | :--- | :--- | :---: | :---: | :---: |
| 8 | $69.7 \%$ | $21.1 \%$ | $6.3 \%$ | $2.8 \%$ | $99.9 \%$ | 142 |
| 25 | 63.9 | 25.0 | 6.9 | 4.2 | 100.0 | 72 |
| 26 | 53.2 | 28.8 | 12.2 | 5.8 | 100.0 | 139 |
| 28 | 64.5 | 23.9 | 5.8 | 5.8 | 100.0 | 155 |
| 86 | 56.8 | 27.9 | 11.7 | 3.6 | 100.0 | 111 |
| 93 | 64.8 | 29.6 | 3.7 | 1.9 | 100.0 | 54 |
| 487 | 47.8 | 34.8 | 13.0 | 4.3 | 99.9 | 23 |
| 491 | 57.1 | 14.3 | 14.3 | 14.3 | 100.0 | 7 |
| 496 | 35.0 | 36.7 | 20.0 | 8.3 | $100 . .0$ | 60 |
| 828 | 53.8 | 28.5 | 14.6 | 3.1 | 100.0 | 130 |
| 871 | 58.2 | 20.0 | 18.2 | 3.6 | 100.0 | 55 |
| OVERALL | $59.5 \%$ | $26.7 \%$ | $9.1 \%$ | $4.7 \%$ | $100.0 \%$ | 948 |

29.8\% Response Rate

TABLE XVII

## Number of Cars in Households of Saturday Riders By Ethinić Background

| Ethnic <br> Background | None | One | Two | Threet | Total | No. of <br> Respondents |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| White | $53.6 \%$ | $26.9 \%$ | $11.3 \%$ | $8.2 \%$ | $100.0 \%$ | 796 |
| Black | 48.8 | 26.4 | 17.0 | 7.8 | 100.0 | 618 |
| Latino | 52.0 | 29.6 | 11.4 | 6.9 | 99.9 | 880 |
|  <br> Pacific <br> Islander | 42.5 | 33.6 | 15.7 | 8.2 | 100.0 | 119 |
| American <br> Indian | 36.2 | 32.3 | 19.3 | 12.2 | 100.0 | 38 |
| Other | 20.0 | 48.3 | 28.8 | 2.9 | 100.0 | 24 |
| OVERALL | $50.7 \%$ | $28.5 \%$ | $13.3 \%$ | $7.6 \%$ | $100.1 \%$ | 2,475 |

34.4\% Response Rate

TABLE XVIII
Number of Cars in Households of Sunday Riders
By Ethnic Background

| Ethnic <br> Background | None | One | Two | Threet | Total | No. of <br> Respondent.s |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| White | $59.0 \%$ | $31.7 \%$ | $7.5 \%$ | $1.9 \%$ | $100.1 \%$ | 216 |
| Black | 46.5 | 34.5 | 13.5 | 5.5 | 100.0 | 191 |
| Latino | 60.8 | 26.1 | 8.6 | 4.5 | 100.0 | 437 |
|  <br> Pacific |  |  |  |  |  |  |
| Islander | 59.6 | 16.4 | 12.1 | 11.8 | 99.9 | 36 |
| American <br> Indian | 79.9 | 4.2 | 5.0 | 10.9 | 100.0 | 17 |
| Other | 66.2 | 10.1 | 16.1 | 7.6 | 100.0 | 13 |
| OVERALL | $59.0 \%$ | $27.2 \%$ | $9.2 \%$ | $4.6 \%$ | $100.0 \%$ | 910 |

28..6\% Response Rate

TABLE XIX
Number of Cars in Saturday Rider Households By Income Group

| $\begin{array}{l}\text { Household } \\ \text { Income }\end{array}$ | Number of Cars |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |$)$

TABLE XX

## Number of Cars in Sunday Rider Households By Income Group.

| Household <br> Income | None | One | Two | Threet | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Under $\$ 5,000$ | $74.1 \%$ | $18.4 \%$ | $4.8 \%$ | $2.7 \%$ | $100.0 \%$ |
| $\$ 5,000-\$ 9,999$ | 61.4 | 28.4 | 6.4 | 3.8 | 100.0 |
| $\$ 10,000-\$ 14,999$ | 47.5 | 41.9 | 10.6 | -- | 100.0 |
| $\$ 15,000-\$ 19,999$ | 27.7 | 53.9 | 17.2 | 1.3 | 100.1 |
| $\$ 20,000-\$ 24,999$ | 31.8 | 28.1 | 28.1 | 12.0 | 100.0 |
| $\$ 25,000$ or More | 13.0 | 44.2 | 15.3 | 27.6 | 100.1 |
| OVERALL | $60.0 \%$ | $27.7 \%$ | $8.2 \%$ | $4.1 \%$ | $100.0 \%$ |
| MEDIAN INCOME | $\$ 4,673$ | $\$ 8,526$ | $\$ 10,400$ | $\$ 8,897$ | $\$ 6,1.36$ |

## Marital Status

Table XXI indicates that only $28.3 \%$ of Saturday riders are married. Table XẊII shows that $24.9 \%$ of Sunday riders are married.

## Marital Status of Saturday Riders

 By Büs Line| Line | Married | Divorced | Widowed | Single | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 27.6\% | 6. $9 \%$ | 3.4\% | 62.1\% | 100.0\% | 29 |
| 8 | 34.6 | 19.2 | 3.8 | 42.3 | 99.9 | 26 |
| 17 | 37.8 | 13.5 | 2.7 | 45.9 | 99.9 | 37 |
| 18 | 22.9 | 1.4 .7 | 5.5 | 56.9 | 100.0 | 109 |
| 25 | 21.3 | 16.9 | 2.2 | 59.6 | 100.0 | 89 |
| 28 | 40.3 | 12.5 | 6.9 | 40.3 | 100.0 | 72 |
| 34 | 29.4 | 14.7 | 3.7 | 52.3 | 100.1 | 109 |
| 49 | 22.8 | 12.0 | 6.6 | 58.7 | 100.1 | 167 |
| 73 | 15.9 | 12.7 | 6.3 | 65.1 | 100.0 | 63 |
| 75 | 28.1 | 11. 2 | 2.2 | 58.4 | 99.9 | 178 |
| 81 | 23.4 | 11.7 | 4.4 | 60.6 | 100.1 | 137 |
| 88 | 23.8 | 9.5 | 8.6 | 58.1 | 100.0 | 105 |
| 94 | 30.3 | 10.3 | 4.1 | 55.2 | 99.9 | 145 |
| 142 | 10.4 | 14.6 | 6.3 | 68.8 | 100.1 | 48 |
| 151 | 20.7 | 17.2 | 5.2 | 56.9 | 100.0 | 58 |
| 155 | 20.7 | 18.2 | 5.2 | 81.8 | 100.0 | 11 |
| 160 | 35.1 | 10.8 | 10.8 | 43.2 | 99.9 | 37 |
| 163 | 28.6 | 8.9 | 8.9 | 53.6 | 100.0 | 112 |
| 432 | 30.3 | 6.4 | 5.5 | 57.8 | 100.0 | 109 |
| 435 | 22.7 | 6.8 | 9.1 | 61.4 | 100.0 | 88 |
| 440 | 24.8 | 8.0 | 6.4 | 60.8 | 100.0 | 125 |
| 488 | 36.7 | 3.3 | 10.0 | 50.0 | 100.0 | 30 |
| 490 | 31.5 | 13.9 | 8.3 | 46.3 | 100.0 | 108 |
| 493 | 22.7 | 13.6 | 9.1 | 54.5 | 99.9 | 22 |
| 810 | 16.3 | 14.3 | 2.0 | 67.3 | 99.9 | 49 |
| 813 | 27.3 | 12.2 | 7.9 | 52.5 | 99.9 | 139 |
| 826 | 35.3 | $10 . .3$ | 4.4 | 50.0 | 100.0 | 168 |
| 832 | 21.1 | 14.5 | 3.9 | 60.5 | 100.0 | 76 |
| 836 | 25.3 | 13.2 | 6.6 | 54.9 | 100.0 | 91 |
| 860 | 21.6 | 13.7 | 11.8 | 52.9 | 100.0 | 51 |
| 871 | 22.4 | 10.2 | 4.1 | 63.3 | 100.0 | 98 |
| OVERALL | 28.3\% | 12.0\% | 5.2\% | 54.5\% | 100.0\% | 2,586 |

[^2]TABLE XXII

## Marital Status of Sunday Riders.

By Bus Line

| Line | Married | Divorced | Widowed | Single | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 37.1\% | 6.3\% | 4. $2 \%$ | 52.4\% | 100.0\% | 143 |
| 25 | 27.1 | 15.7 | 4.3 | 52.9 | 100.0 | 70 |
| 26 | 20.1 | 17.3 | 2:9 | 59.7 | 100.0 | 139 |
| 28 | 31.4 | 13.7 | 5.2 | 49.7 | 100.0 | 153 |
| 86 | 26.1 | 8.1 | 8.1 | 57.7 | 100.0 | 111 |
| 93 | 18.9 | 9.4 | 11.3 | 60.4 | 100.0 | 53 |
| 487 | 12.0 | 20.0 | 20.0 | 48.0 | 100.0 | 25 |
| 491 | -- | 11.1 | 11.1 | 77.8 | 100.0 | 9 |
| 496 | 24.6 | 14.8 | 14.8 | 45.9 | 100.1 | 61 |
| 828 | 23.1 | 9.2 | 2. 3 | 65.4 | 100.0 | 130 |
| 871 | 29.6 | 11.1 | 3.7 | 55.6 | 100.0 | 54 |
| OVERALL | 24.9\% | 13.5\% | 5. $6 \%$ | 56.0\% | 100.0\% | 948 |

29.8\% Response Rate

## TRIP-RELATED CHARACTERISTICS

OF WEEKEND RIDERS

## Type of Fare

Previous on-board surveys taken among regular-service riders on weekdays indicated that between $62 \%$ and $69 \%$ of the riders paid cash fares. Table XXIII shows that $61.1 \%$ of Saturday riders pay cash fares also, a percentage that is not significantly different than that found on some weekday surveys.

Table XXIV shows a significant drop in the percentage of cash-paying riders on Sundays--to $53.8 \%$. The percentage of pass boardings rises significantly on Sunday--from Saturday's level of $37.8 \%$ to $45.8 \%$, a full eight percentage points. The percentage of boardings is higher on Sunday for every type of pass. Senior Citizen pass use accounts for $10.8 \%$ of the Sunday boardings, up from 7.5\% on Saturday. Base pass use rises from $20.4 \%$ on Saturday to $22.2 \%$ on Sünday. The Student Pass for riders under 19 years of age accounts for $4.0 \%$ of the Sunday boardings, up from only $2.9 \%$ on Saturday.

The cash boarding figure of $53.8 \%$ found by the 1980 Survey of Sunday riders is significantly lower than the $59.9 \%$ found over a year earliex. This result may reflect a trend towards increased pass use already seen in weekday boardings.

Table A-VIII in the Appendix illustrates the trend to increased pass use. In 1976 passes were used for an average of $34.1 \%$ of the weekday boardings. Thi's average percentage increased steadily every year, until it had reached $41.5 \%$ by 1980 , with every indication that pass boardings would continue to grow in proportion to cash boardings.

A majority of the riders paying cash fares probably would never buy a pass. Tables XXV and XXVI show that over $50 \%$ of the Saturday and Sunday cash riders say they don't ride the bus often enough to make the purchase of a pass economically worthwhile.

Between $22 \%$ and $24 \%$ of the cash riders claim that they cannot afford to purchase a monthly pass. This finding suggests that there could be a market for a low-price pass issued more frequently. For example, a weekly pass selling for a fraction of the price of a monthly pass might tap a large market of low-income bus riders who cannot otherwise afford to buy a pass. Based on 1980 boarding and fare mix figures the size of the potential market for a weekly pass could be over 50,000 riders. (See page 96 in the Appendix).

An additional potential market for a weekly pass would be comprised of riders who usually buy a monthly pass, except during their vacation periods or other periods when their bus riding frequency during a given month is less than normal. The potential market for a weekly pass would warrant more thorough investigation if RTD were seeking to expand its base of pass users.

The third most frequent reason given by weekend riders for not buying a monthly pass is that they do not know where to buy a pass. That there is a large group of about $8 \%$ of weekend riders who do not know the locations of RTD's $300+$ pass sales outlets can only present a challenge to the Marketing and Communications Department.

A full $5 \%$ of the cash riders claim that they do not buy a pass because there is no convenient place for them to do so. Further study of this groups, along with an analysis of the location of current pass sales outlets, might reveal significant gaps in the pass distribution and promotion network.

PASSES

| Line | Cash/ Transfer | Regular | Express | College | $\begin{gathered} \text { Under } \\ 19 \\ \hline \end{gathered}$ | Senior Citizen | Handicapped | Tourist | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 66.6\% | 16.7\% | -- | 3.3\% | -- | 10.0\% | -- | -- | 3.3\% | 99.9\% | 30 |
| 8 | 56.7 | 26.7 | 6.7\% | 10.0 | -- | -- | -- | -- | -- | 100.1 | 30 |
| 17 | 53.0 | 23.5 | -- | 5.9 | 3.9\% | 9.8 | 3.9\% | -- | -- | 100.0 | 51 |
| 18 | 49.6 | 26.1 | -- | 4.3 | 6.1 | 7.0 | 4.3 | -- | 2.6 | 100.0 | 115 |
| 25 | 61.4 | 22.7 | -- | 5.7 | -- | 8.0 | 2.3 | -- | -- | 100.1 | 88 |
| 28 | 45.8 | 34.9 | 1.2 | 1.2 | 2.4 | 14.5 | -- | -- | -- | 100.0 | 83 |
| 34 | 76.8 | 15.2 | - | 2.7 | . 9 | 2.7 | 1.8 | -- | -- | 100.1 | 112 |
| 49 | 68.0 | 15.8 | 1.1 | 3.3 | 4.3 | 3.8 | 2.7 | . $5 \%$ | . 5 | 100.0 | 184 |
| 73 | 50.0 | 16.7 | 1. | 7.6 | 16.7 | 4.5 | 3.0 | -- | 1.5 | 100.0 | 66 |
| 75 | 62.3 | 18.8 | 4.2 | 3.7 | 3.7 | 3.1 | 2.1 | 2.1 | -- | 100.0 | 191 |
| 81 | 70.7 | 14.3 | 2. 9 | 2.1 | 2.1 | 5.0 | . 7 | -- | 2.1 | 99.9 | 140 |
| 88 | 69.3 | 8.5 | . 9 | 3.4 | 4.3 | 6.8 | 2.6 | 1.7 | 2.6 | 100.1 | 117 |
| 94 | 59.0 | 24.5 | . 7 | 3.3 | 3.3 | 7.9 | 1.3 | -- | -- | 100.0 | 151 |
| 142 | 60.8 | 10.9 | -- | 4.3 | 10.9 | 6.5 | 4.3 | -- | 2.2 | 99.9 | 46 |
| 151 | 61.8 | 7.3 | 5.5 | 3.6 | 9.1 | 9.1 | -- | -- | 3.6 | 100.0 | 55 |
| 155 | 85.7 | 7.1 | -- | -- | -- | 7.1 | -- | -- | -- | 99.9 | 14 |
| 160 | 60.0 | 7.5 | 5.0 | -- | 2.5 | 20.0 | 2.. 5 | -- | 2.5 | 100.0 | 40 |
| 163 | 64.7 | 17.6 | 4.2 | -- | . 8 | 10.9 | -- | -- | 1.7 | 99.9 | 119 |
| 432 | 61.1 | 22.1 | 2.7 | 3. 5 | . 9 | 5.3 | . 9 | . 9 | 2.7 | 100.1 | 113 |
| 435 | 61.6 | 13.1 | -- | 5.1 | 2.0 | 15.2 | 2.0 | 1.0 | -- | 100.0 | 99 |
| 440 | 71.4 | 13.5 | . 8 | 3.8 | -- | 7.5 | 1.5 | . 8 | . 8 | 100.1 | 133 |
| 488 | 80.0 | 5.7 | 5.7 | 8.6 | -- |  | . | -- | -- | 100.0 | 35 |
| 490 | 62.. 6 | 8.4 | 4.7 | 1.9 | . 9 | 13.1 | 2. 8 | -- | 5.6 | 100.0 | 107 |
| 493 | 69.2 | 7.7 | 3.8 | 7.7 | -- | 7.7 | 3.8 | -- | -- | 99.9 | 26 |
| 810 | 72.5 | 3.9 | 3.9 | 3. 9 | -- | 9.8 | -- | 2.0 | 3.9 | 99.9 | 51 |
| 813 | 65.2 | 6.5 | 10.1 | 3.6 | . 7 | 10.1 | . 7 | . 7 | 2. 2 | 99.8 | 138 |
| 826 | 65.3 | 20.8 | 1.4 | 2.8 | 2. 8 | 5.6 | -- | -- | 1.4 | 100.1 | 72 |
| 832 | 60.5 | 19.8 | -- | 4.9 | 7.4 | 1.2 | 2.5 | -- | 3.7 | 100.0 | 81 |
| 836 | 77.4 | 11.8 | -- | 2.9 | 4.9 | 1.0 | 1.0 | -- | 1.0 | 100.0 | 102 |
| 860 | 90.8 | 3.7 | -- | 1.9 | 1.9 | -- | -- | -- | 1.9 | 100.2 | 54 |
| 871 | 59.2 | 15.5 | 2.9 | 3.9 | 1.9 | 8.7 | 2.9 | 4.9 | - | 99.9 | 103 |
| OVERALL | 61.1\% | 20.4\% | 1.8\% | 3.4\% | 2.9\% | 7.5\% | 1.3\% | . $5 \%$ | 1.1\% | 100.0\% | 2,746 |
| 38.2\% Response Rate |  |  |  |  |  |  |  |  |  |  |  |

TABLE XXIV
Type of Fare Paid by Sunday Riders
By Bus Line

| PASSES |  |  |  |  |  |  |  |  | Other | Total | Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line | Cash/ Transfer | Regular | Express | College | $\begin{gathered} \text { Under } \\ 19 \\ \hline \end{gathered}$ | Senior Citizen | Handicapped | Tourist |  |  |  |
| 8 | 41.9\% | 28.2\% | 1.5\% | 4.6\% | 7.6\% | 9.9\% | 3.1\% | . $8 \%$ | 2.3\% | 99.9\% | 131 |
| 25 | 50.0 | 17.1 | -- | 2.9 | 2.9 | 25.7 | -- | -- | 1.4 | 100.0 | 70 |
| 26 | 58.4 | 26.8 | . 7 | 2.1 | 4.2 | 5.6 | 1.4 | . 7 | -- | 99.9 | 1.42 |
| 28 | 57.2 | 22.7 | . 6 | 2.6 | 3.2 | 9.7 | 1.3 | 2.6 | -- | 99.9 | 154 |
| 86 | 51.2 | 19.4 | $1 . .8$ | 4.3 | 5.8 | 13.3 | -- | 1.7 | 2.5 | 100.0 | 119 |
| 93 | 38.9 | 20.5 | 7.5 | 9.4 | 1.9 | 16.8 | 5.7 | -- | -- | 100.0 | 54 |
| 487 | 52.0 | 8.0 | 4.0 | 16.0 | -- | 12.0 | 4.0 | -- | 4.0 | 100.0 | 25 |
| 491 | 42.9 | 14.3 | -- | -- | 14.3 | -- | 28.. 6 | -- | -- | 100:1 | 7 |
| 496 | 81.3 | 1.7 | 1.7 | 1.7 | 1.7 | 8. 5 | 1.7 | -- | 1.7 | 100.0 | 59 |
| 828 | 60.0 | 17.6 | 1.6 | 1.6 | 8.8 | 8.8 | 1.6 | -- . | -- | 100.0 | 125 |
| 871 | 52.7 | 23.6 | 5.5 | -- | 3.6 | 10.9 | 1.8 | 1.8 | -- | 99.9 | 55 |
| OVERALL | 53.8\% | 22.2\% | 1.9\% | 3.7\% | $4.0 \%$ | 10.8\% | 2.1\% | 1.1\% | . $5 \%$ | 100.1\% | 941 |

29.6\% Response Rate

Reasons Given By Saturday Riders for Not Using Pass

| Line | Don't Ride Enough | Can't Afford Pass | Don't Know Where To Buy Pass | No Convenient Pass Outlet | Might <br> Lose Pass | Other | Total | No, of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 52.9\% | 17.6\% | 5.9\% | 5.9\% | 5.9\% | 11.8\% | 100.0\% | 1.7 |
| 8 | 53.3 | 26.7 |  | -- | 20.0 | -- | 100.0 | 15 |
| 17 | 75.0 | 12.5 | 6.3 | 6.3 | -- | -- | 100.1 | 16 |
| 18 | 49.0 | 15.7 | 5.9 | 7.8 | 9.8 | 11.8 | 100.0 | 51 |
| 25 | 46.8 | 19.1 | 14.9 | 10.6 | - | 8.5 | 99.9 | 47 |
| 28 | 58.6 | 20.7 | 6.9 | -- | 6.9 | 6.9 | 100.0 | 29 |
| 34 | 52.5 | 23.7 | 7.5 | 6.3 | 2.5 | 7.5 | 100.0 | 80 |
| 49 | 45.4 | 25.9 | 13.0 | 3.7 | 4.6 | 7.4 | 100.0 | 108 |
| 73 | 41.4 | 17.2 | 3.4 | 6.9 | 10.3 | 20.7 | 99.9 | 29 |
| 75 | 56.1 | 21.4 | 6.1 | 6.1 | 2.0 | 8.2 | 99.9 | 98 |
| 81 | 59.3 | 12.3 | 8.6 | 9.9 | 1.2 | 8.6 | . 99.9 | 81 |
| 88 | 58.8 | 10.3 | 11.8 | 4.4 | 2.9 | 11.8 | 100.0 | 68 |
| 94 | 45.1 | 31.7 | 6.1 | 4.9 | 4.9 | 7.3 | 100.0 | 82 |
| 142 | 66.7 | 23.8 | -- | 4.8 | -- | 4.8 | 100.1 | 21 |
| 151 | 71.4 | 7.1 | 3.6 | 10.7 | -- | 7.1 | 99.9 | 28 |
| 155 | 27.3 | 36.4 | 36.4 | . | -- | . | 100.1 | 11 |
| 160 | 55.0 | 15.0 | 10.0 | 15.0 | -- | 5.0 | 100.0 | 20 |
| 163 | 56.3 | 17.2 | 10.9 | 6.3 | 3.1 | 6.3 | 100.1 | 64 |
| 432 | 71.2 | 18.6 | 3.4 | 1.7 | - | 5.1 | 100.0 | 59 |
| 435 | 55.1 | 18., 4 | 8.2 | 8.2 | 6.1 | 4.1 | 100.1 | 49 |
| 440 | 51.9 | 24.1 | 5.1 | 8.9 | 2.5 | 7.6 | 100.1 | 79 |
| 488 | 64.7 | 17.6 | 5.9 | 5.9 | - | 5.9 | 100:0 | 17 |
| 490 | 51.1 | 28.9 | 4.4 | 2.2 | 2.2 | 11.1 | 99.9 | 45 |
| 493 | 70.0 | 10.0 | 10.0 | 2. | 10.0 | -- | 100.0 | 10 |
| 810 | 55.9 | 17.6 | 11.8 | 8.8 | 2.9 | 2. 9 | 99.9 | 34 |
| 813 | 61.7 | 21.0 | 11.1 | 3.7 | - | 2.5 | 100.0 | 81 |
| 826 | 51.4 | 31.4 | 5.7 | 2.9 | 5.7 | 2.9 | 100.0 | 35 |
| 832 | 50.0 | 32.5 | 5.0 | 2.5 | 2.5 | 7.5 | 100.0 | 40 |
| 836 | 51.7 | 23. 3 | 3.3 | 5.0 | 5.0 | 11.7 | 100.0 | 60 |
| 860 | 69.8 | 9.3 | 11.6 | 4.7 | -- | 4.7 | 100.1 | 43 |
| 871 | 60.3 | 17.. 2 | 5.2 | 10.3 | - | 6.9 | 99.9 | 58 |
| OVERALL | 53.3\% | 22.0\% | 7.7\% | 5.1\% | 4.4\% | 7.6\% | 100.1\% | 1,475 |

83.6\% Response Rate (Percent of 1,765 Cash Riders)

## Reaons Given By Sunday Riders For Not Using Pass

| Line | Don't Ride Enough | Can't <br> Afford <br> Pass | Don't Know Where To Buy Pass | No Convenient Pass Outlet | Might <br> Lose Pass | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 45.8\% | . $20.8 \%$ | 12.5\% | -- | 4.2\% | 16.7\% | 100.0\% | 24 |
| 25 | 59.3 | 25.9 | 3.7 | -- | 7.4 | 3.7 | 100.0 | 27 |
| 26 | 50.6 | 22.1 | 10.4 | 6.5 | $2 . .6$ | 7.8 | 100.0 | 77 |
| 28 | 45.2 | 28.6 | 3.6 | 6.0 | 8.3 | 8.3 | 100.0 | 84 |
| 86 | 61.4 | 15.9 | 20.5 | -- | 2.3 | -- | 100.1 | 44 |
| 93 | 55.6 | 22. 2 | 16.7 | -- | -- | 5.6 | 100.1 | 18 |
| 487 | 50.0 | 30.0 | 10.0 | -- | -- | 10.0 | 100.0 | 10 |
| 491 | 66.7 | 33.3 | -- | -- | -- | -- | 100.0 | 3 |
| 496 | 70.6 | 5.9 | 11.8 | 8.8 | -- | 2.9 | 100.0 | 34 |
| 828 | 38.1 | 33.3 | 4.8 | 11.9 | 2.4 | 9.5 | 100.0 | 42 |
| 871 | 72.4 | 3.4 | 13.8 | 6.9 | -- | 3.4 | 99.9 | 29 |
| OVERALL | 50.8\% | 23.9\% | 8.5\% | 5.1\% | 4.3\% | 7.2\% | 99.9\% | 392 |

## Frequency of Bus Use

The frequency of bus use by Saturday riders does not seem to vary significantly from that of weekday riders. Surveys of weekday riders in 1978 indicated that 71 to $75 \%$ of the riders used the bus five or more days a week. Table XXVII shows that nearly $68 \%$ of the Saturday riders ride the bus that often. On average, most bus riders ride five days a week, although there are some variations by bus line. The most aberrant line in this regard is the 860 line whose Saturday riders average only two days of bus riding per week. Running in local service from Long Beach to Orange via Disneyland and then express to Riverside, the 860 line serves an extraordinarily high proportion of social/recreational trips on Saturday:

The frequency of bụs use by Sunday riders, shown in Table XXVIII, exceeds that of weekday and Saturday riders by one day per week. On average, Sunday riders are more likely to ride the bus six days a week. Nearly $72 \%$ ride the bus five or more days a week. The survey of Sunday riders conducted in 1979 had found that $70 \%$ rode at least five days a week.

Again, the riders on one line stand out as atypical in regard to frequency of bus use. The average use by riders on the 496 line is only two days per week. The 496 line is similar to the 860 in that it operates over a large portion of its route in express service. It runs from Los Angeles to Riverside and

San Bernardino, mostly on the freeway. This line also serves an extremely high proportion of social/recreational trips on the weekend.

Frequency of bus use does vary by type of fare. Tables XXIX and XXX show that pass users tend to ride the bus more often than cash riders. Cash riders surveyed on either Saturday or Sunday average five days of bus riding per week, whereas pass users surveyed on Saturday average six days of riding, (except for Senior Citizen and Tourist Pass users).

Table XXXI shows the average number of boardings per month made by riders in each fare type category. The figures in this table echo the finding that pass users tend to ride the bus more frequently than cash riders.

The table also shows that the Saturday and Sunday cash riders account for 70 to $84 \%$ as many boardings as pass users. The table shows further that there is a variation in the average number of monthly boardings made by riders using different kinds of passes. For example, Handicap pass users on Saturday account for about 80 boardings
per month, as compared to 114 boardings by College and Vocational Pass users. There is also some variation between average monthly boardings made by Saturday and Sunday riders. Senior Citizen Pass users sürveyed on Saturday, for example, account for 100 boardings a month. Those surveyed on Sunday account for only $75 \%$.

Table XXXI also compares average monthly boarding figures obtained during the 1980 Weekend Survey with weekday figures calculated from a 1979 Market Research Survey. The number of boardings made by weekend cash riders tends to be somewhat lower than the number made by weekday cash riders, while the reverse is true of pass riders. Weekend pass users tend to account for more monthly boardings than weekday pass riders. Overall, however, the total number of monthly boardings made by all riders regardless of the type of fare, is remarkably similar for weekday and weekend riders.

Frequency of Bus Use by Saturday Riders

37.8\% Response Rate

TABLE XXVIII

## Frequency of Bus Use by Sunday Riders


29.2\% Response Rate

|  | 7 Days | 6 | 5 | 4 | 3 | $\underline{2}$ | 1 | Less Than $-1$ | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash/Transfer | 17.2\% | 14.8\% | 19.4\% | 7.4\% | 8.4\% | 10.9\% | 8. $0 \%$ | 14.0\% | 100.1\% | 5 | 1685 |
| Regular Pass | 40.3 | 30.0 | 19.8 | 1.7 | 2.1 | 2.1 | 1.9 | 2.1 | 100.0 | 6 | 424 |
| Express Pass | 27.9 | 36.1 | 24.6 | 6.6 | 1.6 | -- | 1.6 | 1.6 | 100: 0 | 6 | 61 |
| College Pass | 34.8 | 27.2 | 20.7 | 6.5 | 3.3 | 2.2 | 1.1 | 4.3 | 100.1 | 6 | 92 |
| Under 19 Pass | 39.0 | 18.3 | 25.6 | 6.1 | 2. 4 | 4.9 | 2.4 | 1.2 | 99.9 | 6 | 82 |
| Senior Citizen Pass | 30.5 | 16.9 | 24.3 | 10.2 | 9.0 | 5.1 | 1.1 | 2.8 | 99.9 | 5 | 177 |
| Handicapped Pass | 43.2 | 18.2 | 6.8 | 11.4 | 6.8 | 2.3 | 4.5 | 6.8 | 100.0 | 6 | 44 |
| Tourist Pass | 40.0 | 6.7 | 6.7 | -- | 6.7 | 6.7 | 6.7 | 26.7 | 100.2 | 5 | 15 |
| Other | 27.0 | 8.1 | 40.5 | 5.4 | 8.1 | 2.7 | 2.7 | 5.4 | 99.9 | 5 | 37 |
| OVERALL | 24.1 | 18. 3 | 20.2 | 6.5 | 6.9 | 8.0 | 5.8 | 10.1 | 100.0 | 5 | 2617 |

TABLE XXX

## $\frac{\text { Frequency of Bus Use by Sunday Riders }}{\text { by Type of Fare }}$

|  |  | 7 Days | 6 | 5 | 4 | 3 | $\underline{2}$ | 1 | Less <br> Than <br> 1 | Total | Median | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cash/Transfer | 36.2\% | 9.9\% | 15.6 | 3.9\% | 6.7\% | 11.5\% | 6.7\% | 9.4\% | 99.9\% | 5 | 436 |
|  | Regular Pass | 56.2 | 16.6 | 17.8 | 1.8 | . 6 | 3.6 | 2.4 | 1.2 | 100.2 | 7 | 169 |
|  | Express Pass | 40.0 | 10.0 | 40.0 | -- | 10.0 | -- | -- | -- | 100:0 | 6 | 10 |
|  | College Pass | 50.0 | 17.9 | 14.3 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 100.2 | 7 | 28 |
|  | Under 19 Pass | 50.0 | 21.4 | 11.9 | 7.1 | 2.4 | 4.8 | 2.4 | -- | 100.0 | 7 | 42 |
| !́ | $\begin{aligned} & \text { Senior Citizen } \\ & \text { Pass } \end{aligned}$ | 51.2 | 7.5 | 11.2 | 10.0 | 2.5 | 6.3 | 11.2 | -- | 9.9 .9 | 7 | 80 |
| 1 | Handicapped Pass. | 50.0 | 7.1 | 28.6 | -- | 7.1 | -- | 7.1 | -- | 99.9 | 7 | 14 |
|  | Tourist Pass | 20.0 | -- | 80.0 | -- | -- | -- | -- | -- | 100.0 | 5 | 5 |
|  | Other | 33.3 | 33.3 | 16.7 | -- | -- | -- | -- | 16.7 | 100.0 | 6 | 6 |
|  | OVERALL | 43.3 | 12.0 | 16.3 | 4. 2 | 4.5 | 8.2 | 5.8 | 5.7 | 100.0 | 6 | 790 |

TABLE XXXXI

## Mean Number of Boardings Per Month

 By Type of Fare| Type of Fare | Weekday Riders | Saturday Riders | Sunday <br> Riders |
| :---: | :---: | :---: | :---: |
| Cash \& Transfer | 75.9 | 70.8 | 71.4 |
| All Passes | 87.3 | 100.0 | 96.7 |
| Regular Pass | 89.4 | 99.3 | 104.4 |
| Express Pass | 82.8 | 98.4 | 100..1 |
| College Pass | NA | 113.7 | 93.5 |
| Pre-College <br> Student Pass | $\underset{\mathrm{NA}}{89.6}$ | 99.9 | 82. 9 |
| $\begin{aligned} & \text { Senior Citizen } \\ & \text { Pass } \end{aligned}$ | 77.1 | 99.8 | 74.8 |
| Handicap Pass | 82.3 | 79.8 | 147.7 |
| Other Fares | 71.8 | 93.4 | 104.6 |
| All Fares | 80.5 | 82.1 | 82.9 |

## Trip Purpose

Weekend transit trips are significantly different than weekday trips in regard to their purpose. In addition, there are significant differences between Saturday and Sunday riders' trip purposes.

Table XXXII displays the trip purpose mix among Saturday riders. Over $37 \%$ are found to be engaged in travel to or from work, a significant decrease from the $50 \%$ proportion of work trips encountered on weekday surveys. School trips, as high as $31 \%$ of the weekday trips, are down to $4 \%$ on Saturday. The percentage of medical trips on Saturday is not significantly different than during the week. Shopping trips on Saturday represent $28 \%$ of the total, significantly higher than the $6 \%$ level found on weekday surveys. Social and recreational trips also take a significant jump on Saturday, up to $18 \%$ of the total, as opposed to between 8 and $9 \%$ on weekdays.

The Sunday trip purpose mix shown in Table XXXIII exhibits some changes from Saturday. The most notable changes are the decrease in shopping trips and the increase in social/recreational and church trips. Weekend trip purpose can vary widely by line. For example, the 860 and 496 lines both show an extremely high proportion of recreational trips.

Trip Purpose of Saturday Riders

|  | Line | Work | School | Shopping | Medical | Social/ <br> Recreational | Church | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 24.1\% | 10.3\% | 20.7\% | 10.3\% | 27.5\% | 3.4\% | 3.6\% | 99.9\% | 29 |
|  | 8 | 46.4 | , | 21.4 | . | 17.8 | 7.1 | 7.1 | 99.8 | 28 |
|  | 17 | 33.3 | 4.8 | 35.7 | 2.4 | 11.9 |  | 11.9 | 100.0 | 42 |
|  | 18 | 37.0 | 4.6 | 32.4 | 3.7 | 17.6 | 1.9 | 2.8 | 100.0 | 108 |
|  | 25 | 37.0 | 2.5 | 43.2 | 2.5 | 12.3 |  | 2.5 | 100.0 | 81 |
|  | 28 | 37.5 | 3.8 | 32.5 | 10.0 | 10.1 | 2.5 | 3.7 | 100.1 | 80 |
|  | 34 | 31.2 | 3.7 | 27.5 | 3.7 | 23.0 | . 9 | 10.1 | 100.0 | 109 |
|  | 49 | 35.2 | 9.5 | 26.3 | 5.0 | 14.6 | 3.4 | 6.1 | 100.1 | 179 |
|  | 73 | 30.0 | 8.3 | 36.7 | -- | 16.7 | 5.0 | 3.3 | 100.0 | 60 |
|  | 75 | 46.4 | 4.5 | 15.6 | 3.4 | 18.5 | 2.8 | 8.9 | 100.1 | 179 |
|  | 81 | 43.3 | 2.1 | 21.3 | 1.4 | 23.4 | 2.1 | 6.4 | 100.0 | 141 |
|  | 88 | 31.8 | 3.6 | 25.5 | 7.3 | 23.6 | 1.8 | 6:4 | 100.0 | 110 |
|  | 94 | 38.1 | 2.0 | 29.9 | 2.7 | 19.7 | 5.4 | 2.1 | 99.9 | 147 |
|  | 142 | 19.6 | 8.7 | 41.3 | 2.2 | 28.2 | -- | -- | 100.0 | 46 |
|  | 151 | 32.7 | 7.7 | 26.9 | 3.8 | 26.9 | -- | 1.9 | 99.9 | 52 |
|  | 155 | 42.9 | -- | 42.. 9 |  | 14.2 | -- | -- | 100.0 | 14 |
| 9 | 160 | 29.3 | 4.9 | 43.9 | 4.9 | 9.7 | 2.4 | 4.9 | 100.0 | 41 |
| 1 | 163 | 35.0 | . 8 | 26.7 | 5.0 | 21.6 | 5.8 | 5.0 | 99.9 | 120 |
|  | 432 | 37.3 | 1.8 | 36.4 | . 9 | 18.2 | 2.7 | 2.7 | 100.0 | 110 |
|  | 435 | 27.5 | 2.9 | 31.4 | 3.9 | 24.5 | 5.9 | 3.9 | 100.0 | 102 |
|  | 440 | 34.1 | . 8 | 19.8 | 1.6 | 32.6 | 2.4 | 8.7 | 100.0 | 126 |
|  | 488 | 40.0 | 6.7 | 20.0 | -- | 23.3 | -- | 10.0 | 100.0 | 30 |
|  | 490 | 37.9 | 1.9 | 32.0 | 1.9 | 21.4 | 3.9 | 1.0 | 100.0 | 103 |
|  | 493 | 26.9 | -- | 30.8 | -- | 30.7 | 3.8 | 7.7 | 99.9 | 26 |
|  | 810 | 36.7 | --7 | 28.6 | 4.1 | 24.4 | 3.8 | 6.1 | 99.9 | 49 |
|  | 813 | 53.2 | . 7 | 20.9 | . 1 | 23.7 | -- | 1.4 | 99.9 | 139 |
|  | 826 | 44.9 | 1.4 | 29.0 | 2.9 | 15.9 | 2.9 | 2.9 | 99.9 | 69 |
|  | 832 | 35.1 | 7.8 | 26.0 | -- | 18.2 | 1.3 | 11.7 | 100.1 | 77 |
|  | 836 | 38.8 | 3.1 | 28.6 | 7.1 | 16.3 | 1.0 | 5.1 | 100.0 | 98 |
|  | 860 | 18.9 | 3.8 | 15.1 | 1.9 | 52.9 | -- | 7.5 | 100.1 | 53 |
|  | -871 | 40.8 | 1.9 | 27.2 | 1.9 | 21.4 | 1.0 | 5.8 | 100.0 | 103 |
|  | OVERALL | 37.3\% | 4.1\% | 27.9\% | 4.8\% | 18.0\% | 2.8\% | 5.2\% | 100.1\% | 2,651 |

36.8\% Response Rate

TABLE XXXIII

## Trip Purpose of Sunday Riders


$28.8 \%$ Response Rate

## Mode of Access

Surveys of weekday ridership have indicated that $60 \%$ of the respondents get to the bus on foot. Similarly, $65 \%$ of the Saturday riders surveyed walk to the bus as indicated in Table XXXIV. During the week $35 \%$ of the riders transferred from another bus: The percentage on Saturday is $28 \%$. A small percentage of weekday regular-service riders, $4.1 \%$, get to the bus by car. Saturday riders report that a correspondingly low $5.5 \%$ drove or were driven to the buis.

As seen in Table XXXV, $69.6 \%$ of the Sunday riders surveyed also walk to the bus. Another $25.5 \%$ transfer from another bus, and only $4 \%$ use a car to get to the bus.

## Mode of Access Used by Saturday Riders

| Line | Walked | Bus | Drove | Was <br> Driven | Other | Total | Respondents |
| ---: | ---: | :--- | :--- | :---: | :--- | :---: | ---: |

42.7\% Response Rate

TABLE XXXV

## Mode of Access. Used by Sunday Riders

| Line | Walked | Bus | Drove | $\begin{gathered} \text { Was } \\ \text { Driven } \end{gathered}$ | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 89.5\% | 8.8\% | . $6 \%$ | 1.1\% | -- | 100.0\% | 181 |
| 2.5 | 77.6 | 18.4 | 1.3 | 1.3 | 1.3\% | 99.9 | 76 |
| 26 | 66.0 | 30.2 | 1.9 | . 6 | 1.3 | 100.0 | 159 |
| 28 | 70.5 | 24.6 | 2.2 | 2.2 | . 5 | 100.0 | 183 |
| 86 | 69.0 | 26.4 | 2.3 | $1 . .6$ | . 8 | 100.1 | 129 |
| 93 | 65.5 | 29.3 | 1.7 | 1.7 | 1.7 | 99.9 | 58 |
| 487 | 73.1 | 23.1 | -- | 3.8 | -- | 100.0 | 26 |
| 491 | 16.7 | 83.3 | -- | -- | -- | 100.0 | 12 |
| 496 | 32.8 | 18.0 | 11.5 | 36.1 | 1.6 | 100.0 | 61 |
| 828 | 77.0 | 21.1 | . 7 | 1.3 | -- | 100.1 | 152 |
| 871 | 66.1 | 20.3 | 8.5 | 3.4 | 1.7 | 100.0 | 59 |
| OVERALL | 69.6\% | 25.5\% | 2.0\% | 2.0\% | . $9 \%$ | 100.0\% | 1,096 |

[^3]
## Mode of Egress

Tables XXXVI and XXXVII show a distribution of egress modes similar to that encountered among access modes. Over $61 \%$ of the riders walk from the bus, and about $35 \%$ transfer to another bus. Only $3 \%$ drive a car or are passengers in a car after they leave the bus.

## Mode of Egress Used by Saturday Riders

| Line | Walked | Bus | Drove | $\begin{gathered} \text { Was } \\ \text { Driven } \end{gathered}$ | Other | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 54.5\% | 42.4\% | -- | -- | 3.0\% | 99.9\% | 33 |
| 8 | 54.8 | 45.2 | -- | -- | 3.0\% | 100.0 | 31 |
| 17 | 64.0 | 34.0 | -- | 2.0 | -- | 100.0 | 50 |
| 18 | 54.2 | 44.1 | -- | . 8 | . 8 | 199.9 | 118 |
| 25 | 63.7 | 34.1 | 2. $2 \%$ | 2.4 | 1. | 100.0 | 91 |
| 28 34 | 60.7 59 | 34.5 | 1.2 | 2.4 | 1.2 | 100.0 | 84 |
| 49 | 59.6 | 34.9 | 2.8 | 1.8 | . 9 | 100.0 | 109 |
| 73 | 48.6 | 26.6 | 1.6 | 1.6 | 1.6 | 100.0 | 188 |
| 75 | 64.1 | 31.8 | 3.1 | 1.0 | 1.0 | 100.0 | 64 192 |
| 81 | 48.9 | 39.3 | 5.2 | 5.9 | . 7 | 100.0 | 135 |
| 88 | 55.9 | 37.0 | 1.6 | 5.5 | -- | 100.0 | 127 |
| 94 | 56.7 | 39.5 | 1.9 | 5.5 | 1.9 | 100.0 | 157 |
| 142 | 79.1 | 20.9 | 1.9 | -- | . | 100.0 | 43 |
| 151 | 58.8 | 33.8 | -- | 1.5 | 5.9 | 100.0 | 68 |
| 155 | 68.8 | 31.3 | -- | 1.5 | -- | 100.1 | 16 |
| 160 | 70.5 | 27.3 | 2.3 | -- | -- | 100.1 | 44 |
| 163 | 60.8 | 33.1 | . 8 | 1.5 | 3.8 | 100.0 | 130 |
| 432 | 75.4 | 20.3 |  | 2.5 | 1.7 | 99.9 | 118 |
| 435 | 70.5 | 24.8 | -- | 2.9 | 1.9 | 100.1 | 105 |
| 440 | 71.1 | 24.4 | . 7 | 3.0 | 1.7 | 99.9 | 135 |
| 488 | 70.6 | 26.5 | 4 | 2.9 | -- | 100.0 | 34 |
| 490 | 62.4 | 24.8 | 4.6 | 4.6 | 3.7 | 100.1 | 109 |
| 810 | 52.0 80.4 | 44.0 11.8 | 4.0 3.9 | 2.0 | 2.0 | 100.0 | 25 |
| 813 | 64.0 | 27.2 | 1.5 | 4.4 | 2.9 | 100.0 | 136 |
| 826 | 56.0 | 41.7 | 1.2 | . 4 | 1.2 | 100.1 | 84 |
| 832 | 71.4 | 25.0 | 1:2 | -- | 2.4 | 100.0 | 84 |
| 836 | 53.2 | 45.0 | -- | . 9 | . 9 | 100.0 | 109 |
| 860 871 | 54.9 | 23.5 | 7.8 | 11.8 | 2.0 | 100.0 | 51 |
| OVERALI | 64.6 | 28.3 | 2.0 | 2.0 | 3.0 | 99.9 | 9.9 |
| OVERALL | 61.0\% | 34.5\% | 1.5\% | 1.5\% | 1.4\% | 99.9\% | 2,820 |

39..2\% Response Rate

## TABLE XXXVII

## Mode of Egress Used by Sunday Riders

| Line | Walk | Bus | Drive | Be <br> Driven | Other | Total | No. of <br> 8 |
| ---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $80.1 \%$ | $18.4 \%$ | $.7 \%$ | $.7 \%$ | -- | $99.9 \%$ | 136 |  |
| 25 | 58.7 | 38.7 | 1.3 | -- | $1.3 \%$ | 100.0 | 75 |
| 26 | 54.9 | 43.7 | -- | -- | 1.4 | 100.0 | 142 |
| 28 | 61.1 | 35.9 | .6 | 1.2 | 1.2 | 100.0 | 167 |
| 86 | 70.0 | 27.5 | -- | -- | 2.5 | 100.0 | 120 |
| 93 | 57.4 | 37.0 | -- | 3.7 | 1.9 | 100.0 | 54 |
| 487 | 65.2 | 34.8 | -- | -- | -- | 100.0 | 23 |
| 491 | 25.0 | 50.0 | -- | -- | 25.0 | 100.0 | 4 |
| 496 | 26.8 | 28.6 | 5.4 | 39.3 | -- | 100.1 | 56 |
| 828 | 77.1 | 19.5 | 1.7 | -- | 1.7 | 100.0 | 118 |
| 871 | 75.4 | 21.1 | 1.8 | 1.8 | -- | 100.1 | 57 |
| OVERALL | $60.6 \%$ | $35.7 \%$ | $.8 \%$ | $1.5 \%$ | $1.4 \%$ | $99.9 \%$ | 952 |

29.9\% Response Rate

## Length of Experience as RTD Rider

Between 26 and 28 percent of the weekend riders began to ride the RTD within the last year. Between 15 and 18 percent began to ride within the last six months. Between 26 and $28 \%$ have been riding ten jears or more.

Overall, the average Saturday rider has been riding RTD buses 2.8 years, and the average Sunday rider has been riding slightly longer -- 3.3 years.

| Line | Less Than One Month | One-Six Months | Six Months One Year | One-Two Years | $\begin{aligned} & \text { Two-Five } \\ & \text { Years } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Five-Ten } \\ & \text { Years } \\ & \hline \end{aligned}$ | Ten Years or More | Total | Median Years | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 7.4\% | 3.7\% | 14.8\% | 18.5\% | 18.5\% | 3.7\% | 33.3\% | 99.9\% | 2.9 | 27 |
| 8 | -- |  | 4.2 | 16.7 | 12.5 | 16.7 | 50.0 | 100.1 | 9.9 | 24 |
| 17 | 2.7 | 13.5 | 5.4 | 10.8 | 21.6 | 8.1 | 37.8 | 99.9 | 4.4 | 37 |
| 18 | 9.6 | 10.6 | 9.6 | 16.3 | 16.3 | 9.6 | 27.9 | 99.9 | 2.7 | 104 |
| 25 | 9.2 | 4.6 | 8.0 | 13.8 | 24.1 | 6.9 | 33.3 | 99.9 | 3.8 | 87 |
| 28 | 9.9 | 8.5 | 7.0 | 18.3 | 19.7 | 4.2 | 32.4 | 100.0 | 3.0 | 71 |
| 34 | 9.6 | 8.7 | 5.8 | 18.3 | 18.3 | 10.6 | 28.8 | 100.1 | 3.2 | 104 |
| 49 | 11.5 | 8.3 | 7.0 | 12.1 | 22.9 | 8.3 | 29.9 | 100.0 | 3.5 | 157 |
| 73 | 3.1 | 1.6 | 10.9 | 14.1 | 23.4 | 9.4 | 37.5 | 100.0 | 4.6 | 64 |
| 75 | 10.0 | 11.2 | 15.9 | 15.9 | 20.6 | 10.0 | 16.5 | 100.1 | 1.8 | 170 |
| 81 | 9.5 | 10.3 | 7.9 | 22.2 | 24.6 | 10.3 | 15.1 | 99.9 | 2.0 | 126 |
| 88 | 17.9 | 8.9 | 14.3 | 17.9 | 19.6 | 5.4 | 16.1 | 100.1 | 1.5 | 112 |
| 94 | 5.5 | 10.3 | 9.6 | 14.4 | 24.7 | 4.1 | 31.5 | 100.1 | 3.2 | 146 |
| 142 | 2.3 | 7.0 | 4.7 | 16.3 | 32.6 | 14.0 | 23.3 | 100.2 | 3.8 | $43^{\circ}$ |
| 151 | $7 . .4$ | 7.4 | 11.1 | 25.9 | 25.9 | 11.1 | 11.1 | 99.9 | 1.9 | 54 |
| 155 | 8.3 | -- | 16.7 | 16.7 | 41.7 | 8.3 | 8.3 | 100.0 | 2.6 | 12 |
| 160 | 6.1 | 12.1 | 12.1 | 24.2 | 24.2 | 12. 1 | 9.1 | 99.9 | 1.8 | 33 |
| 163 | 8.2 | 13.6 | 10.9 | 20.9 | 21.8 | 6.4 | 18.2 | 100.0 | 1.8 | 110 |
| 432 | 15.. 1 | 6.6 | 16.0 | 14.2 | 16.0 | 12.3 | 19.8 | 100.0 | 1.9 | 106 |
| 435 | 6.2 | 9.9 | 9.9 | 16.0 | 18.5 | 11.1 | 28.4 | 100.0 | 3.3 | 81 |
| 440 | 15.7 | 13.9 | 4.3 | 18.3 | 10.4 | 6.1 | 31.3 | 100.0 | 1.9 | 115 |
| 488 | 8.3 | 16.7 | 12.5 | 25.0 | 12.5 | 4.2 | 20.8 | 100.0 | 1.5 | 24 |
| 490 | 6.1 | 13.1 | 10.1 | 24.2 | 17.2 | 8.1 | 21.2 | 100.0 | 1.9 | 99 |
| 493 | 9.1 | 9.1 | 9.1 | 9.1 | 18.2 | 13.6 | 31.8 | 100.0 | 4.2 | 22 |
| 81.0 | 12.0 | 12.0 | 6.0 | 22.0 | 22.0 | 10.0 | 16.0 | 100.0 | 1.9 | 50 |
| 813 | 9.7 | 9.7 | 13.4 | 24.6 | 25.4 | 4.5 | 12.7 | 100.0 | 1.7 | 134 |
| 826 | 7.6 | 9.1 | 7.6 | 15.. 2 | 25.8 | 12.1 | 22.7 | 100.1 | 3.2 | 66 |
| 832 | 12.3 | 11.0 | 5.5 | 16.4 | 27.4 | 4.1 | 23.3 | 100.0 | 2.5 | 73 |
| 836 | 12.1 | 7.7 | 11.0 | 9.9 | 27.5 | 9.9 | 22.0 | 100.1 | 3.0 | 91 |
| 860 | 32.7 | 17.3 | 19.2 | 9.6 | 9.6 | 1.9 | 9.6 | 99.9 | . 5 | 52 |
| 871 | 12.6 | 7.4 | 12.6 | 12.6 | 25.3 | 7.4 | 22.1 | 100.0 | 2.6 | 95 |
| OVERALL | 9.5\% | 8.6\% | 9.6\% | 16.6\% | 21.9\% | 7.3\% | 26.5\% | 100.0\% | 2.8 | 2.489 |

## Length of Sunday Riders' Experience on RTD

| Line | Less Than One Month | One-Six Months | Six MonthsOne Year | $\begin{aligned} & \text { One-Two } \\ & \text { Years } \end{aligned}$ | Two-Five Years | Five-Ten <br> Years | Ten Years or More | Total | Median Years | No. of Respondent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 4.8\% | 1. $0 \%$ | 8.6\% | 13.3\% | 31.4\% | 6.7\% | 34.3\% | 100.1\% | 4.1 | 105 |
| 25 | 3.2 | 12.7 | 14.3 | 11.1 | 19.0 | 6.3 | 33.3 | 99.9 | 3.4 | 63 |
| 26 | 6.5 | 12. 2 | 6.5 | 16.3 | 17.1 | 12.2 | 29.3 | 100.1 | 3.5 | 123 |
| 28 | 5.6 | 8.4 | 11.9 | 18.9 | 21.0 | 9.8 8 | 24.5 | 100.1 | 2.8 | 143 |
| 86 | 9.6 | 8.7 | 9.6 | 14.4 | 26.9 | 8.7 | 22.1 | 100.0 | 2.9 | 104 |
| 93 | 3.8 | 5.8 | 13.5 | 15.4 | 15.4 | 13.5 | 32.7 | 100.1 | 4.3 | 52 |
| 487 | 8.0 | 8.0 | 8.0 | 4.0 | 28.0 | 12.. 0 | 32.0 | 100.0 | 4.4 | 25 |
| 491 | -- | -- | 12.. 5 | -- | 62.5 | 12.5 | 12.5 | 100.0 | 3.8 | 8 |
| 496 | 22.0 | 1.7 | 8.5 | 5.1 | 28.8 | 6.8 | 27.1 | 100.0 | 3.3 | 59 |
| 828 | 8.0 | 8.9 | 7.1 | 19.6 | 20.5 | 7.1 | 28.6 | 99.8 | 2.9 | 112 |
| 871 | 13.0 | 16.7 | 13.0 | 16.7 | 13.0 | 9.3 | 18.5 | 100.2 | 1.5 | 54 |
| OVERALL | 6.2\% | 9.2\% | 10.1\% | 15.8\% | 20.1\% | 10.3\% | 28.2\% | 99.9\% | 3 : 3 | 848 |

## Rider Evaluation of RTD Service

When asked their impression of RTD service, most weekend riders gave a positive answer. Tables XL and XLI provide the results of their evaluation. Saturday riders gave RTD service a "somewhat favorable" or "very favorable" rating 69\% of the time. Over $77 \%$ of the Sunday riders gave the service favorable ratings.

Eight percent of the Saturday riders and $5.8 \%$ of the Sunday riders said they have a "very unfavorable" impression of RTD service.

During previous surveys weekday riders were asked to rate RTD as an agency providing public transportation. Although this question was somewhat different than that asked of weekend riders, similar results were obtained. Nearly 63\% rated RTD as "good" or "excellent," and 7.7\% rated RTD as "poor."

Saturday Riders Rate RTD Service

| Line | Very <br> Favorable | Somewhat <br> Favorable | Somewhat Unfavorable | Very <br> Unfavorable | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 42.9\% | 28.6\% | 28.6\% | -- | 100.1 | 28 |
| 8 | 26.1 | 39.1 | 34.8 | -- | 100.0 | 23 |
| 17 | 31.4 | 54.3 | 8.6 | 5.7 | 100.0 | 35 |
| 18 | 1.5.2 | 47.8 | 20.7 | 16.3 | 100.0 | 92 |
| 25 | 28.4 | 46.9 | 21.0 | 3.7 | 100.0 | 81 |
| 28 | 32.3 | 40.0 | 20.0 | 7.7 | 100.0 | 65 |
| 34 | 29.4 | 46.1 | 18.6 | 5. 9 | 100.0 | 102 |
| 49 | 21.6 | 45.3 | 27.0 | 6.1 | 100.0 | 148 |
| 73 | 6.3 | 47.6 | 30.2 | 15.9 | 100.0 | 63 |
| 75 | 30.1 | 33.7 | 24.5 | 11.7 | 100.0 | 163 |
| 81 | 26.6 | 36.7 | 25.8 | 10.9 | 100.0 | 128 |
| 88 | 27.6 | 48.6 | 17.1 | 6.7 | 100.0 | 105 |
| 94 | 23.6 | 33.3 | 25.7 | 17.4 | 100.0 | 144 |
| 142 | 66.7 | 20.8 | 10.4 | 2.1 | 100.0 | 48 |
| 151 | 27.5 | 41.2 | 25.5 | 5.9 | 100.1 | 51 |
| 155 | 9.1 | 36.4 | 45.5 | 9.1 | 100.1 | 11 |
| 160 | 26.5 | 29.4 | 32.4 | 11.8 | 100.1 | 34 |
| 163 | 25.0 | 36.5 | 30.8 | 7.7 | 100.0 | 104 |
| 432 | 25.2 | 50.5 | 16.5 | 7.8 | 100.0 | 103 |
| 435 | 34.6 | 40.7 | 16.0 | 8.6 | 99.9 | 81 |
| 440 | 31.3 | 46.1 | 17.4 | 5.2 | 100.0 | 115 |
| 488 | 59.1 | 22.7 | -- | 18.2 | 100.0 | 22 |
| 490 | 41.8 | 48.4 | 8.8 | 1.1 | 100.1 | 91 |
| 493 | 33.3 | 47.6 | 19.0 | -- | 99.9 | 21 |
| 310 | 26.5 | 59.2 | 8.2 | 6.1 | 100.0 | 49 |
| 813 | 38.8 | 45.5 | 11.2 | 4.5 | 100.0 | 134 |
| 826 | 33.8 | 36.9 | 24.6 | 4.6 | 99.9 | 65 |
| 832 | 16.7 | 51.5 | 21.2 | 10.6 | 100.0 | 66 |
| 836 | 26.8 | 45.1 | 20.7 | 7.3 | 99.9 | 82 |
| 860 | 39.6 | 39.6 | 14.6 | 6.3 | 100.1 | 48 |
| 871 | 3.2.: 2 | 44.4 | 1.8 .9 | 4.4 | 99.9 | 90 |
| OVERALL | 28.5\% | 40.5\% | 23.0\% | 8.0\% | 100.0\% | 2,392 |

33.2\% Response Rate

TABLE XLI
Sunday Riders Rate RTD Service

|  | Line | Very Favorable | Somewhat Favorable | Somewhat Unfavorable | Very Unfavorable | Total | No. of Respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 47.9\% | 29.4\% | 14.3\% | 8.4\% | 100.0\% | 119 |
|  | 25 | 34.9 | 34.9 | 25.4 | 4.8 | 100.0 | 63 |
|  | 26 | 37.7 | 41.8 | 16.4 | 4.1 | 100.0 | 122 |
|  | 28 | 39.5 | 39.5 | 17.0 | 4.1 | 100.1 | 147 |
|  | 86 | 34:3 | 46.7 | 12.4 | 6.7 | 100.1 | 105 |
|  | 93 | 27.5 | 49.0 | 15.7 | 7.8 | 100:. 0 | 51 |
| - | 487 | 22.7 | 54.5 | 22.7 | -- | 99.9 | 22 |
|  | 491 | 42.9 | 14.3 | 14.3 | 28.6 | 100.1 | 7 |
|  | 496 | 30.8 | 42.3 | 11.5 | 15.4 | 100.0 | 52 |
|  | 828 | 41.9 | 30.2 | 17.1 | 10.9 | 100.1 | 129 |
|  | 871 | 25.0 | 57.7 | 9.6 | 7.7 | 100.0 | 52 |
|  | OVERALL | 36.5\% | 40.8\% | 16.8\% | 5.8\% | 100.0\% | 869 |

27.3\% Response Rate

## METHODOLOGY

In order to establish benchmark information about RTD's weekend ridership, on-board surveys were conducted on 31 randomlyselected bus lines operating on Saturday and on 11 lines operating on Sunday. The Survey of Saturday service was conducted on three dates--August 23, September 6 and September 13, 1980. The survey of Sunday service was conducted on August 24 and September 7, 1980.

The usual on-board survey methodology was employed. A market research surveyor was assigned to ride one randomly-selected bus run throughout the day. Surveyors handed questionnaires in numerical order to every boarding passenger and collected completed questionaires from disembarking passengers. If a boarding passenger refused to take a questionnaire, the surveyor was instructed to note that passenger's gender, ethnic background and boarding point on the questionnaire and file the questionnaire with the completed questionnaires. At the end of each trip, the interviewer filled out a Trip Record which indicates the bus line number, run number, beginning and ending points of the trip, scheduled and actual time at those points, and the beginning and ending serial numbers of all questionnaires distributed during that trip.

The Trip 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 surveyor neglects to fill out a trip record or the trip record is lost. At the end of each trip the surveyors 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.

Overall, surveyors distributed 7,195 questionnaires on Saturday, receiving 3,077 responses. The response rate for all 31 lines in total was $43 \%$. Response rate did vary widely by bus line--from a low of only $8 \%$ on the 2 line to a high of $74 \%$ on both the 88 and 813 lines. Table XLII summarizes questionnaire distribution and response by bus line.

The number of questionnaires distributed on Sunday was 3,180 . The response rate was somewhat lower than on Saturday, $35 \%$. A total of 1,096 questionnaires was returned. The response rate varied from $18 \%$ on the 25 line to $80 \%$ on the 491 line. Sunday's questionnaire distribution and response by line are shown in Table XLIII.

The questionnaire used was RTD's newly-revised standard on-board instrument which collect's data on 22 demographic, attitudinal and trip-related variables:

MODE OF ACCESS
MODE OF EGRESS
BOARDING POINT
ALIGHTING POINT
TRIP ORIGIN
TRIP DESTINATION
TRANSFERS
FREQUENCY OF BUS USE
TYPE OF FARE
TRIP PURPOSE
RESIDENCE ADDRESS
GENDER
AGE
NUMBER OF CARS IN HOUSEHOLD
NUMBER OF PERSONS IN HOUSEHOLD
ANNUAL HOUSEHOLD INCOME
ETHNIC GROUP
MARITAL STATUS
PHYSICAL HANDICAPS
LENGTH OF EXPERIENCE AS RTD RIDER
IMPRESSION OF RTD SERVICE
REASONS FOR NOT USING RTD PASS
A copy of the on-board questionnaire follows Table XLIII.

After the surveyors 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. Assistance on this task was provided by temporary employees acquired throügh a temporary employment agency. Their main functions were to code trip origins and destinations in terms of zip codes as shown in the Thomas Brothers Popular Street Atlas, to code boarding and alighting stops according to stop code lists used by SCRTD checkers for ride checks, and to edit the questionnaire.

Previously-written standard computer programs were used to combine data from each respondent into one case, to arrange the cases sequentially according to questionnaire number, to fill in gaps in quèstionnaire sequence so that all boarding passengers could be accounted for, and to check cash fares for accuracy.

Standard analytical computer programs, previously developed by Market Research, use 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 be used whenever the
standard on-board questionnaire is employed for a survey and are easily adaptable for use with other questionnaire formats.

The basic SPSS analyses performed were crosstabulations of each of four major variables by each of the other variables on the questionnaire. Each variable on the questionnaire was crosstabbed with Bus Line, Respondent Age, Ethnic Background, and Household Income. Special three-way crosstabs were performed to assist in the calculation of average number of boardings per month by type of fare.

| Line | Latest Check | Adjusted to Summer 1980 | Questionnaires $\qquad$ | Responses | Response Rate | Expansion Factor To Line Level | Incidents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 9855 | 10249 | 425 | 35 | 8\% | 292.829 |  |
| 8 | 4556 | 6059 | 69 | 31 | 45 | 1.95.452 | Last 2 trips NOT surveyed** |
| 17 | 830 | 9.96 | 141 | 55 | 39 | 18.109 | Last 2 trips NOT surveyed |
| 18 | 1369 | 1428 | 190 | 132 | 69 | 10.818 | One trip NOT surveyed-bus late |
| 25 | 7776 | 8476 | 500 | 97 | 19 | 87.381 | Ran out of $Q$ 's |
| 28 | 26245 | 27374 | 704 | 90 | 13 | 304.156 | Ran out of Q's |
| 34 | 692 | 858 | 195 | 121 | 62 | 7.091 | Ran out of Q |
| 49 | 10042 | 10474 | 351 | 205 | '58 | 51.093 |  |
| 73 | 2023 | 2110 | 143 | 73 | 51 | 28.904 |  |
| 75* | 14562 | 13397 | 470 | 208 | 44 | 64.409 |  |
| 81 | 7147 | 6575 | 278 | 147 | 53 | 44.728 |  |
| 38 | 6209 | 7451 | 179 | 132 | 74 | 56.447 |  |
| 94 | 11833 | 14673 | 525 | 169 | 32 | 86.822 | Ran out of $\mathrm{Q}^{\prime} \mathrm{s}^{\star * * *}$ |
| 142 | 844 | 1080 | 124 | 60 | 48 | 18.000 | Ran out of Qs |
| 151 | 1043 | 1043 | 166 | 79 | 48 | 13.203 |  |
| 155 | 587 | 781 | 26 | 16 | 62 | 48.813 |  |
| 160 | 2050 | 2727 | 94 | 45 | 48 | 60.600 |  |
| 163 | 3154 | 4416 | 316 | 143 | 4.5 | 30.881 |  |
| 432 | 1458 | 1589 | 186 | 124 | 67 | 12.815 |  |
| 435 | 1119 | 1432 | 167 | 116 | 69 | 12.345 |  |
| 440 | 2079 | 2661 | 237 | 142 | 60 | 18.739 |  |
| 488 | 411 | 510 | 83 | 37 | 45 | 13.784 |  |
| 490 | 814 | 1042 | 156 | 138 | 88 | 7.551 |  |
| 493 | 357 | 389 | 52 | 28 | 54 | 13.893 |  |
| 810 | 2870 | 3444 | 191 | 57 | 30 | 60.421 |  |
| 813 | 1270 | 1626 | 197 | 146 | 74 | 11.137 |  |
| 826 | 5249 | 5475 | 367 | 84 | 23 | 65.179 |  |
| 832 | 10028 | 9226 | 151 | 87 | 58 | 106.046 |  |
| 836 | 5841 | 7009 | 226 | 114 | 50 | 61.482 |  |
| 860 | 491 | 476 | 99 | 57 | 58 | 8.351 |  |
| 871 | 2113 | 2705 | 170 | 109 | 64 | 24.817 |  |
| TOTAL | 144917 | 157751 | 7195 | 3077 | 43\% | 51.268 |  |

*No Saturday ride check data available for Line 75 ; boarding estimates based on $60 \%$ of weekday
ridership.
**Surveyor ill
*** Last trip not surveyed
Precision $=.02$ at $95 \%$ confidence level

TABLE XLIII
Sunday Sample - Summer 1980
Questionnaire Distribution and Response

| Line | Latest <br> Check | Adjusted to <br> Summer 1980 | Questionnaires <br> Distributed | Responses | Expansion <br> Factor to |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line Level |  |  |  |  |  |

*No Sunday ride check data available for Lines 26 ; 487, 491, Boarding estimates based on $40 \%$ of weekday ridership. Ride check data not available separately for Lines 487 and 491 because lines are combined operationally.

Precision $=.03$ at $95 \%$ confidence level

The RTD is surveying passengers on this bus line in order to find out whit your transit needs are and how we can best respond to your needs. All replies are completely confidential. so please answer all the questions as accurataly as possibie. Thank you for your heip.

PLEASE ANSWER ALL THE QUESTIONS AND RETURN THIS FORM TO THE RTD REPRESENTATIVE


## CUESTIONARIO PARA PASAJEROS

EI RTD está conduclendo uhos estudios abordo de este autobús, para determinar to que sus chientes más precisan al viajir y lo que debemós hacér pará cúmplir cón sus deseos. Ys que las respuestas se considerarán confidencialmente, le rogamos que llene el cuestionarlo detalladamente si es poslble. Le agradecemos su ayuda.


APPENDIX
-87-

TA3LE A-I
RTD System-Wide Number of Buses in Service Peak/Base

| Year | Quarter | Average Weekday |  | Average Saturday |  | Average Sunday |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Peak | Base | Peak | Base | Peak | Base |
| 1976 | Winter | NA | NA | NA | NA | NA | NA |
|  | Spring (June only) | 2028 | 1329 | 1185 | 1186 | 872 | 873 |
|  | Summer* | 2060 | 1370 | 1215 | 1216 | 906 | 908 |
|  | Fall | 2027 | 1364 | 1260 | 1260 | 885 | 885 |
| 1977 | Winter | 1.958 | 1345 | 1181 | 1181 | 875 | 872 |
|  | Spring | 1929 | 1320 | 1149 | 1148 | 857 | 852 |
|  | Summer | 1952 | 1302 | 987 | 982 | 735 | 732 |
|  | Fail | 1845 | 1207 | 967 | 962 | 726 | 723 |
| 1978 | Winter | 1848 | 1219 | 972 | 967 | 728 | 724 |
|  | Spring | 1799 | 1181 | 926 | 921 | 69.5 | 691 |
|  | Summer | 1832 | 1185 | 927 | 921 | 699 | 695 |
|  | Fall | 1897 | 1194 | 941 | 935 | 701 | 697 |
| 1979 | Winter | 1990 | 1224 | 943 | 935 | 701 | 697 |
|  | Spring | 1962 | 1221 | 957 | 952 | 721 | 717 |
|  | Summer* | 2006 | 1235 | 961 | 955 | 717 | 714 |
|  | Fall | 2006 | 1235 | 961 | 955 | 717 | 714 |
| 1980 | Winter | 2006 | 1235 | 961 | 955 | 717 | 714 |
|  | Spring | 1999 | 1224 | 971 | 926 | 731 | 694 |
|  | Summer | 2000 | 1214 | 968 | 926 | 726 | 678 |

Source: Statistical Digest, Service Analysis Section *Strike

TABLE•A-II
RTD System-Wide
Actual Vehicle Miles

| Year | Quarter | Average Weekday | Average Saturday | Average Sunday | Average Month Total | Quarter Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1976 | Winter | NA | NA | NA | NA | NA |
|  | Spring (June only) | 349,000 | 257,000 | 195,700 | 9,490,000 | NA |
|  | Summer** | 355,160 | 265,950 | 197,500 | 9,420,000 | 26,206,000 |
|  | Fall | 350,300 | 240,600 | 192,470 | 9,592,000 | 28,776,000 |
| 1977 | Winter | 350,333 | 261, 633 | 196,500 | 9,438,000 | 28,314, 000 |
|  | Spring | 343,100 | 254, 367 | 189,833 | 9,308,000 | 27,925,000 |
|  | Summer | 338,800 | 229,800 | 170,.500 | 9,15.3,000 | 27,458,000 |
|  | Fall | 327,700 | 208,100 | 159,700 | 8,583,000 | 25,750,000 |
| 1978 | Winter | 320,900 | 208,600 | 159,000 | 8,491,000 | 25,473,000 |
|  | Spring | 321, 500 | 210,000 | 159,600 | 8,514,000 | 25,541,000 |
|  | Summer | 315,300 | 204,000 | 153,100 | 8,271,000 | $24,813,000$ |
|  | Fall | 319,200 | 200,300 | 152,000 | 8,332,000 | 24,997,000 |
| $1979$ | Winter | 330,300 | 201,900 | 152,200 | 8,631,000 | 25,893,000 |
|  | Spring | 334,400 | 200,000 | 151,600 | 8,708,000 | 26,124,000 |
|  | Summer* | $340,000$ | 196,900 | 154,600 | 6,612,000 | 19,836,000 |
|  | Fall | 341,100 | 200,700 | 153,700 | 8,800,000 | 26,401,000 |
| 1980 | Winter | 337,200 | 203,000 | 160,000 | 8,820,000 | 26,459,000 |
|  | Spring | 335,800 | 201,800 | 158,200 | 8,776,000 | 26,329,000 |
|  | Summer ${ }^{\text {P }}$ | 330,400 | 198,400 | 151, 600 | 8,557,000 | 25,671,000 |
|  | Fall | 335,200 | 198,400 | 151.,600 | 8,656,000 | 25,969,000 |

Source: Statistical Digest, Service Analysis Section
*Strike
$1_{\text {Beginning }}$ Summer 1980, scheduled mileage figures from 4-24 Report are used. Previous actual vehicle miles were from Hub Mileage Report and averaged approximately $2 \%$ over scheduled miles.

TABLE A-III
RTD System-Wide
Number of Scheduled Vehicle Hours

| Year | Quarter | Average Weekday | Average Saturday | Average Sunday | Average Month Total | Quarter Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1976 | Winter | NA | NA | NA | NA | N̈A |
|  | Spring (June only) | 24,400 | 18,200 | 13,200 | NA | NA |
|  | Summer* | 25,070 | 18,800 | 13,700 | 615,600 | 1,846,900 |
|  | Fall | 24,900 | 18,500 | 13,400 | 682,000 | 2,045,000 |
| 1977 | Winter | 24,500 | 18,300 | 13,300 | 656,000 | 1,969,000 |
|  | Spring | 24,000 | 17,800 | 13,000 | 649,000 | 1, 948,000 |
|  | Summer | 23,600 | 15,800 | 11,600 | 634,000 | 1,903,000 |
|  | Fall | 23,200 | 15,000 | 11,400 | 607,000 | 1,821,000 |
| 1978 | Winter | 22,500 | 14,900 | 11,100 | 596,000 | 1,787,000 |
|  | Spring | 22,400 | 15,000 | 11,000 | 592,000 | 1,775,000 |
|  | Summer | 21,800 | 14,300 | 10,600 | 573,000 | 1,720,000 |
|  | Fall | 22,400 | 14,300 | 10,600 | 584,000 | 1,753,000 |
| $1979$ | Winter | 23, 000 | 14,400 | 10,600 | 603,000 | 1,808,000 |
|  | Spring | 23,400 | 14,500 | 10,700 | 612,000 | 1,835,000 |
|  | Summer* | 23,300 | 14,700 | 10,800 | 458,000 | 1,374,000 |
|  | Fall | 23,500 | 14,500 | 10,700 | 610,000 | 1,829,000 |
| 1980 | Winter | 23,500 | 14,500 | 10,700 | 614,000 | 1,842,000 |
|  | Spring | 23,500 | 14,500 | 10,700 | 614,000 | 1,843,000 |
|  | Summer* | 23,200 | 14,500 | 10,700 | 603,000 | 1,809,000 |
|  | Fall* | 23,500 | 14,500 | 10,700 | 603,000 | 1,809,000 |

Source: Statistical Digest, Service Analysis Section
*Strike

TABLE A-IV
RTD System-Wide
Actual Drivèer Pay Hours

| Year | Quarter | Average Weekday | Average Saturday | Average Sunday | Average Month Total | Quarter Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1976 | Winter | NA | NA | NA | NA | NA |
|  | Spring (Jüne only) | 30,700 | 21,700 | 16,400 | 827,000 | NA |
|  | Summer* | 31,000 | 22,600 | 18,700 | 767,100 | 2,301,000 |
|  | Fall | 30,900 | 21,500 | 18,500 | 848,000 | 2., 543,000 |
| 1977 | Winter | 29,800 | 21,300 | 17,100 | 802,000 | 2,407,000 |
|  | Spring | 29,300 | 21,000 | 16,700 | 796,000 | 2,388,000 |
|  | Suminer | 29,000 | 19,400 | 16,500 | 792,000 | 2,375,000 |
|  | Fall | 29,000 | 17,400 | 15,200 | 761,000 | 2., 284,000 |
| 1978 | Winter | 27,000 | 17,100 | 14,300 | 717,000 | 2,152,000 |
|  | Spring | 27,300 | 17,500 | 13,500 | 721,000 | 2,162,000 |
|  | Suminer | 26,500 | 17,200 | 13,300 | 697,000 | 2,091,000 |
|  | Fall | 27,200 | 17,300 | 13,300 | 713,000 | 2,139,000 |
| 1979 | Winter | 28,300 | 17,200 | 14,200 | 745,000 | 2,234,000 |
|  | Spring | 28,900 | 17,700 | 14,600 | 761,000 | 2,284,000 |
|  | Summer* | 28,900 | 17,800 | 1.5,000 | 572,000 | 1,716,000 |
|  | Fall | 28,700 | 16,700 | 14,400 | 746,000 | 2,239,000 |
| 1980 | Winter | 28,000 | 17,000 | 14,100 | 736,000 | 2,209,000 |
|  | Spring | 28,000 | 17,200 | 14,100 | 737,000 | 2,212,000 |
|  | Summer <br> Fall | 28,000 | 17,600 | 14,400 | 736,000 | 2,208,000 |

Source: Statistical Digest, Service Analysis Section
*Strike

TABLE A-V
RTD System-Wide Total Operating Cost


Source: Statistical Digest, Service Analysis Section *Strike

TABLE A-VI
Response to Spanish-Language Questionnaire by Saturday Riders

| Inne | Number of Latino Respondents | Number of Spanish-Language Questionnaires | \% of Latinos Replying in Spanish |
| :---: | :---: | :---: | :---: |
| 2 | 13 | 7 | 53.8\% |
| 8 | 16 | 9 | 56.3 |
| 17 | 34 | 26 | 76.5 |
| 18 | 15 | 10 | 66.7 |
| 25 | 46 | 33 | 71.7 |
| 28 | 111 | 90 | $8 \overline{1} .1$ |
| 34 | 48 | 49 | 100.0 |
| 49 | 77 | 108 | 100.0 |
| 73 | 2 | 0 | -- |
| 75 | 124 | 111 | 89.5 |
| 81 | 69 | 65 | 94.2 |
| 88 | 35 | 30 | 85.7 |
| 94 | 77 | 74 | 96.1 |
| 142 | 52 | 3 | 5.8 |
| 151 | 28 | 26 | 92.9 |
| 155 | 9 | 7 | 77.8 |
| 160 | 42 | 38 | 90.5 |
| 163 | 42 | 42 | 100.0 |
| 432 | 57 | 38 | 66.7 |
| 435 | 17 | 13 | 76.5 |
| 440 | 44 | 34 | 77.3 |
| 488 | 14 | 13 | 92.9 |
| 490 | 55 | 38 | 69.1 |
| 493 | 12 | 6 | 50.0 |
| 810 | 16 | 14 | 87.5 |
| 813 | 64 | 57 | 89.1 |
| 826 | 48 | 39 | 81.3 |
| 832 | 17 | 10 | 58.8 |
| 836 | 20 | 16 | 42.9 |
| 860 | 7 | 3 | 42.9 |
| 871 | 36 | 34 | 94.4 |
| OVERALL | 1,247 | 1,043 | 83.6\% |

## TABLE A-VII

## Response to Spanish-Langüage Questionnaire

 by Sunday Riders| Line | Number of <br> Latino <br> Respondents | Number of <br> Spanish-Language <br> Questionnaires | \% of Latinos <br> Replying in <br> Spanish |
| ---: | :---: | :---: | :---: | :---: |
| 25 | 168 | 24 | $14.3 \%$ |
| 26 | 113 | 31 | 77.5 |
| 28 | 194 | 101 | 89.4 |
| 86 | 56 | 163 | 84.0 |
| 93 | 19 | 47 | 83.9 |
| 487 | 9 | 14 | 73.7 |
| 491 | 2 | 6 | 66.7 |
| 496 | 19 | 1 | 50.0 |
| 828 | 118 | 11 | 57.9 |
| 871 | 12 | 15 | 12.7 |
| OVERALL | 750 | 8 | 66.7 |

TABLE A-VIII
Type of Fare Paid on Weekdays
1976-1980
Cash
Ticket/
Transfer

| Year | Quarte |
| :--- | :--- |
| 1976 | Winter |
|  | Spring |
|  | Summer |
|  | Fall |
|  | Mean |

1977 Winter
Spring
Summer
Fall
Mean
1978 Winter
Spring
Summer
Fall
Mean
979 Winter
Spring
Summer
Fall
Mean
1980 Winter
Spring
Summer
Fall
Mean

Soüre: Statistical Digest, Service Analysis Section

## FORMULA TO ESTIMATE

POTENTIAL MARKET FOR WEEKLY PASSES

The estimate of the size of the potential market for weekly passes is calculated as follows:

$$
\frac{[(1,330,000 \times 49.7 \%) \times 73 \%] \times 22 \%:}{2}=53,079
$$

where $1,330,000=$ Average number of Boardings per Weekday
$49.7 \%=$ Proportion of Cash and Transfer Boardings
$73 \%=$ Proportion of Cash and Transfer Boardings by Riders who Ride the Bus five more more days per week
$\mathbf{2 2 \%}=$ Proportion of Cash Riders who "can't afford" a monthly pass


[^0]:    'The City Community Analysis and Planning Division says black South Central Los Angeles, including Watts, 'is experiencing the greatest economic deterioration in any city community.' Between 1970 and 1977 population fell by 40,000; the labor force dropped by 20,000 ; the unemployment rate climbed by $11.1 \%$. In 1977, the area had a shortage of 33,730 jobs. Purchasing power dropped by as much as $35 \%$. More than half the people--56.4\%--

[^1]:    *Richard E. Meyer, "New Middle Class Emerging in City-Persevering Asians," L.A. Times, April 13, 1980.

[^2]:    35.9\% Response Rate

[^3]:    34.5\% Response Rate

