Los Angeles County Metropolitan Transportation Authority

Service Planning Market Research Program

FY96-97 Survey of Los Angeles County Residents

-Final-

November 1998

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FY96-97 Survey of Los Angeles County Residents

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Dr. Johanna Zmud of NuStats International also deserves special thanks. Dr. Zmud, who is the principal author of this report, worked closely with MTA staff to ensure the MTA's study objectives were met.

Finally, we all owe a debt of gratitude to the nearly 3,500 residents of Los Angeles County who took the time to participate in the survey. *Your opinion really does count!*

Robert Jackson
SPMRP Project Manager
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11-5-98

INTRODUCTION

This report documents the procedures and results of a telephone survey administered for the Los Angeles County Metropolitan Transportation Authority (LACMTA) in the fall of 1996. The survey was conducted from August 15 to October 22, 1996 and resulted in 3,487 usable questionnaires, which were collected from a representative sample of English- and Spanish-speaking Los Angeles County residents.

This survey was conducted as one component of Phase I of the LACMTA's "Service Planning Market Research Program" (SPMRP). The SPMRP is a customer-oriented, multi-phase research initiative designed to develop an ongoing transit marketing research program at the LACMTA. Other Phase I SPMRP research components included focus groups with LACMTA passengers and non-passengers (English and non-English speaking), surveys of passengers on-board LACMTA buses and trains, follow-up surveys of current and former LACMTA riders, and on-board surveys of municipal bus passengers in Los Angeles County.

Key findings from the FY96-97 Survey of Los Angeles County Residents are included in this report. Frequencies and cross-tabulations were performed to summarize most findings, and these are included in the main body of this report as tables and graphs. Detailed statistical tabulations of these data by age, gender, household income, and race/ethnicity are included as an appendix. ***Readers should note that conclusions and recommendations pertaining to the attitudes, opinions, and travel behaviors of Los Angeles County residents are presented in a separate document (namely, the SPMRP Phase I Summary Report). This latter report synthesizes the main findings from several of the Phase I research components.***

Survey Objectives

The goal of the Survey of Los Angeles County Residents was to provide accurate and representative baseline data on Los Angeles County residents' priorities, preferences, and needs regarding public transportation. For purposes of this survey, this broad goal was operationalized as a series of specific research objectives that surfaced during an assessment of the information needs of LACMTA staff from various departments. These objectives were to:

- Assess the public's image of the LACMTA and the transit services it provides;
- Assess Los Angeles County residents' experience using public transit;
- Examine the extent to which transit is used for work and other trip purposes;
- Determine the factors that influence transit use among County residents;
- Measure perceptions of transit service quality held by non-transit users; and
- Assess the effectiveness of various LACMTA communication strategies.

Survey Design

Working closely with LACMTA staff from the Countywide Planning and Marketing Departments, the consultant team (NuStats International, with subcontractor support from Arthur Bauer & Associates, Michael R. Kodama Planning Consultants, and Transportation Management Services) designed the FY96-97 Survey of Los Angeles County Residents. This section presents an overview of the survey design. A detailed description of survey methods is presented in Appendix A.

The final survey instrument (see Appendix B) consisted of 52 questions. The instrument took an average of 18 - 20 minutes to complete. The questionnaire topics included:

- Respondent demographics
- Attitudes toward and recognition of the LACMTA
- Modes of travel for various trip purposes
- Public transit experience in Los Angeles County and elsewhere
- Importance and ratings of public transit service attributes
- Opinions about personal safety, and
- Advertising recall.

Questionnaires were prepared in English and Spanish. Of the completed interviews, 77% were in English and 23% were in Spanish.

Sampling Plan

Residents of Los Angeles County comprised the target population for the survey. Households were the primary sampling unit. The sampling plan was designed to result in 3,500 completed interviews (see Table A-1 in Appendix A). The sample was stratified on geographic area as defined by census tracts provided by the LACMTA. The seven sampled areas were coterminous with the LACMTA area team boundaries, which are:

- Area 1: Central Los Angeles
- Area 2: San Gabriel Valley
- Area 3: Southeast
- Area 4: South Bay
- Area 5: Westside
- Area 6: San Fernando Valley
- Area 7: North Los Angeles County.

The sample was designed to distribute the completed interviews among the seven areas in proportion to each area's percentage of the total households in the study area. The final data set has 3,487 cases. The map on the following page presents the distribution of completed interviews among the seven MTA planning areas.

Add map

The survey was administered *via* telephone using a random-digit dial (RDD) sample. The sampling frame included both listed and unlisted telephone numbers.

Households Without Telephones

By definition, the sampling frame excluded households without telephones. Households without telephones were represented in the survey results through a statistical-correction technique. This technique is described in Appendix B. The data in this report represent data that have been "weighted" to account for these households without telephones. The procedure for weighting the data is described in Appendix B. When the weight is applied to the 3,487 records in the data set, the resulting data tables include 3,385 usable records.

Respondent Selection

The interviews were conducted with randomly selected respondents 18 years of age and older. The technique for selecting a designated respondent within a household (once an eligible household had been determined) was to interview the person who had the "last birthday." It is believed that this method resulted in the nearly representative male/female split of 47% and 53%. Typically, telephone surveys without controls for within household selection result in severe over-sampling of females.

SAMPLE DEMOGRAPHICS

All sample surveys are susceptible to non-response errors. Non-response errors refer to the fact that certain individuals selected in the sample do not participate in the survey or fail to answer an item in the interview. To determine the degree to which the Household Telephone Survey sample has been impacted by non-response errors, two rates (overall response rate and item non-response rates) are presented in this report. Item non-response rates are presented in Appendix A. The Council of American Survey Research Organizations (CASRO) guidelines was used to calculate the overall response rate. Using CASRO guidelines, response rate is defined as the portion of eligible households who complete interviews. Of the 6,625 eligible households in the sample, interviews were completed with 3,487 households for a response rate of 53%. A response rate of at least 50% is generally considered adequate.

Sample Validation

Given the 53% response rate, it is evident that many eligible households did not participate. To ensure the reliability of the inferences drawn from this sample, it is useful to compare the sample statistics with known population parameters (that is, Census data). Table 1 compares the weighted sample statistics with 1990 Census data. Most sample statistics are within 1 to 3 percentage points of population parameters.

Table 1
Comparison of Sample Data with 1990 Census Data

Demographic	Description	Survey Data	1990 Census Data
Gender			
	Female	53%	50%
	Male	47%	50%
Age			
	18 – 24	16%	16%
	25 – 34	28%	27%
	35 – 44	24%	20%
	45 – 54	14%	13%
	55 - 64	9%	10%
	65+	10%	13%
Income			
	<$5K	3%	5%
	$5K-10K	6%	8%
	$10K-15K	9%	8%
	$15K-25K	15%	15%
	$25K-35K	15%	15%
	$35K-45K	11%	12%
	$45K-55K	8%	10%
	$55k+	22%	28%
	Missing	11%	N/a
Nativity			
	Foreign Born	39%	33%

Source: FY96-97 Survey of Los *Angeles* County Residents (Weighted for Non-Telephone Households, Base = 3,385)

Significant differences (4 percentage points or more) between the survey sample and Census parameters are found within the following sample subgroups:

- persons 35-44 years (over-represented),
- foreign-born persons (over-represented).

These differences should be taken into account when interpreting the findings presented in this report.

Race/Ethnicity Validation

Race/ethnicity comparisons are not presented in Table 2 because the Census does not provide a valid comparison for the telephone survey data due to the way in which the Census collects information on race/ethnicity variables. The Census Bureau collects race and Hispanic origin (ethnicity) in separate questions. For race information, four choices are provided: White; Black; American Indian, Aleut, Eskimo; or Asian and Pacific Islander. "Other" is not specifically provided, but it is accepted when respondents are unable to choose among the other categories. The Census Bureau derives Hispanic origin from answers to the question, "What is the origin or descent of each person in this household?". Thus, from the 1990 Census we get the following percentages for the breakdown by race in Los Angeles County:

- White - 56.8%
- Black - 11.2%
- American Indian, Aleut, Eskimo - 0.5%
- Asian, Pacific Islander - 10.8%
- Other - 20.7%.

The Hispanic origin group was 37.8% of the total population of Los Angeles County. Of these, 42.3% classified their race as White, 1.7% as Black, and 56.0% as Other.

The household telephone survey, on the other hand, used a single item to gather race/ethniciy information. Six race/ethnicity categories were used. The sample distribution using these categories is presented below:

- White - 35%
- Black - 11%
- American Indian, Aleut, Eskimo - 1%
- Asian / Pacific Islander - 6%
- Hispanic origin - 40%
- Other or "Missing" race information - 7%.

The percentage White based on the survey is much lower than the percentage White obtained from the Census because respondents were able to cite their race/ethnicity as "Hispanic" in the survey (this option is not available in the Census). We believe that the Asian / Pacific Islander percentage based on the survey is lower than the Census percentage because the survey was conducted in English and Spanish only. Therefore, non-English speaking Asians or Pacific Islanders could not participate in the survey.

Demographics by LACMTA Planning Area

The demographics of the residents of the LACMTA's seven service planning areas, based on the survey sample, vary significantly. Data describing the household income, race/ethnicity, birthplace, and education characteristics of respondents are summarized in Tables 2 through 6. Recognition of the characteristics of the sub-samples for each planning area also helps in the understanding and interpretation of the survey results.

Table 2
Respondents' Reported Household Income by Planning Area

Household Income	Central (n=321)	San Gabriel Valley (n=532)	South East (n=579)	South Bay (n=390)	West Side (n=517)	San Fernando Valley (n=531)	North Los Angles County (n=156)
<$10K	18%	10%	10%	8%	13%	9%	5%
$10K – 25K	34%	25%	34%	25%	22%	25%	20%
$25K – 45K	26%	28%	31%	30%	27%	25%	32%
$45K – 65K	12%	15%	14%	16%	15%	16%	21%
$65K – 100K	7%	14%	7%	12%	12%	12%	16%
$100K +	3%	8%	4%	9%	11%	13%	6%
Total	100%	100%	100%	100%	100%	100%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Table 3
Respondents' Reported Race/Ethnicity by Planning Area

Race/ Ethnicity	Central (n=351)	San Gabriel Valley (n=581)	South East (n=636)	South Bay (n=417)	West Side (n=571)	San Fernando Valley (n=591)	North Los Angeles County (n=169)
Am. Indian	1%	2%	1%	1%	1%	2%	2%
Asian	7%	11%	4%	5%	5%	6%	6%
Black	6%	8%	11%	23%	14%	5%	12%
Hispanic	61%	43%	53%	32%	33%	32%	19%
White	21%	32%	27%	33%	40%	48%	56%
Other	4%	4%	4%	6%	7%	7%	5%
Total	100%	100%	100%	100%	100%	100%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Table 4
Respondents' Reported Nativity by Planning Area

		San			San	North Los

Reported Nativity	Central (n=358)	Gabriel Valley (n=593)	South East (n=643)	South Bay (n=428)	West Side (n=580)	Fernando Valley (n=603)	Angeles County (n=170)
US	47%	65%	56%	69%	60%	62%	76%
Outside US	53%	35%	44%	31%	40%	38%	24%
Total	100%	100%	100%	100%	100%	100%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Table 5
Respondents' Reported National Origin by Planning Area

National Origin	Central (n=185)	San Gabriel Valley (n=201)	South East (n=282)	South Bay (n=127)	West Side (n=222)	San Fernando Valley (n=221)
Mexico	62%	63%	74%	60%	36%	50%
Central America	21%	9%	13%	20%	30%	16%
West/East Europe	11%	7%	7%	7%	15%	13%
South America	1%	2%	2%	5%	3%	3%
China/Taiwan	2%	10%	0%	1%	0%	1%
Other Asian	3%	7%	2%	4%	3%	2%
India	0%	1%	0%	0%	2%	2%
Middle East	0%	0%	0%	2%	7%	9%
Canada	1%	2%	1%	1%	3%	3%
Total	101%	101%	99%	100%	99%	99%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households; columns may not total 100% due to rounding).
Note 1: North County was not included in Table 5 due to a small sample size.
Note 2: Base includes persons born outside the US only.

Table 6
Respondents' Reported Educational Attainment by Planning Area

Highest Level of Education	Central (n=357)	San Gabriel Valley (n=594)	South East (n=640)	South Bay (n=425)	West Side (n=577)	San Fernando Valley (n=599)	North Los Angeles County (n=171)
Grade School	29%	20%	24%	18%	19%	19%	8%
High School	26%	25%	29%	27%	20%	23%	28%
Some College	24%	23%	28%	26%	23%	23%	39%
College Graduate	15%	23%	13%	18%	26%	27%	22%
Graduate School	6%	10%	6%	11%	12%	9%	3%
Total	100%	101%	100%	100%	100%	101%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

ATTITUDES ABOUT TRANSIT AND THE LACMTA

To better understand the motivations and behaviors of the general population, respondents were asked a series of questions pertaining to:

- support for public transportation
- awareness of LACMTA name and mission, and
- image of LACMTA.

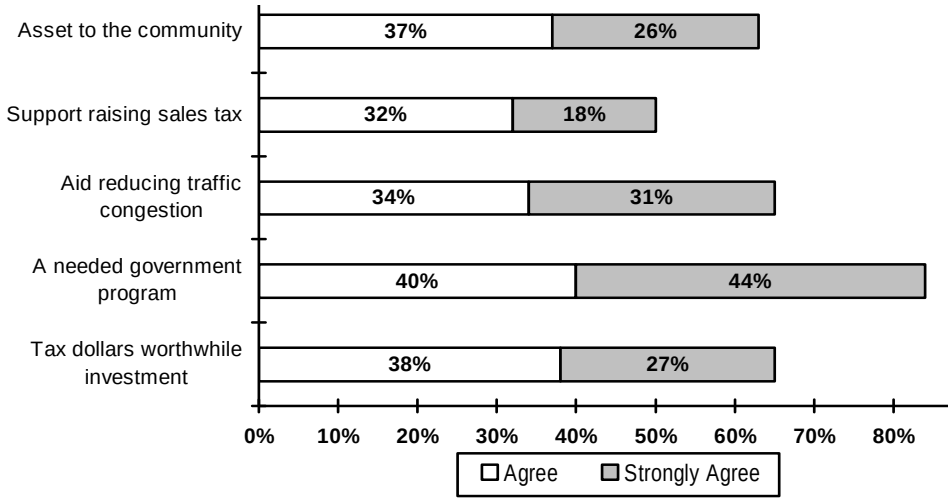
Respondents' attitudes with respect to public transportation are generally positive. However, the analysis reveals that significant attitudinal differences exist between gender, residential areas and age groups in LA County.

Public Transit Support

Respondents were asked to indicate on a scale of 1 to 5, where 1 is "*strongly disagree*," 3 is "*neither agree nor disagree*," and 5 is "*strongly agree,"* their opinions about five statements regarding public transit:

1. Tax dollars spent on public transit are a worthwhile investment.
2. Public transit is another unneeded government program.
3. Public buses and trains aid in reducing traffic congestion on the streets and freeways of LA County.
4. I would support raising the sales tax by one-half percent (0.5%) to improve public transportation in LA County.
5. Public transit service into my neighborhood is an asset to the community.

Figure 2
Agreement with Statements about Public Transit



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not total 100 due to rounding and the omission of 'don't know' or 'refused'. Wording of data labels has been modified to enhance the interpretability of the figure.

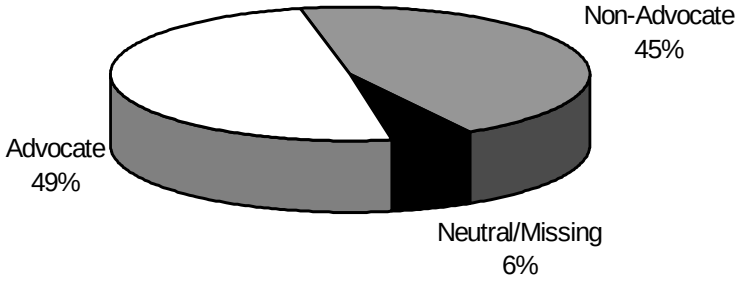
Respondents were very supportive of four of the five statements, and split almost evenly on the issue about raising the sales tax. A majority of respondents, ranging from 63% to 85%, "agree" or "strongly agree" that tax dollars spent on public transit are a worthwhile investment, public transit is a needed government program, public buses and trains aid in reducing traffic congestion, and public transit service is an asset to the community. Half of the respondents (50%) "agree" or "strongly agree" to support raising the sales tax by one-half percent (0.5%) to improve public transportation in Los Angeles County. The survey results did not provide evidence that respondents' attitudes about public transit would predict their behaviors (e.g., voting behaviors or mode-choice behaviors). Thus, the results should be used cautiously.

The statement that receives the best support from the respondents (mean score of 4.1 out of 5 after recoding) is that public transit is a needed government program suggesting that the general population in LA County recognizes the importance of government involvement in public transportation. Statements 1, 3 and 5 achieved a mean score of between 3.4 and 3.5 out of 5.0. The statement about raising the sales tax achieved a 3.0 mean score (neutral).

To further analyze the respondents' characteristics with respect to their support for public transit, an advocacy measure was created. Advocacy was defined by the level of agreement expressed by the respondents to the statement on raising the sales tax by one-half percent (0.5%) to improve public transportation in Los Angeles County. Respondents who

"agreed" or "strongly agreed" to raising the sales tax were considered to be ***Transit Advocates***, the rest were defined as ***Transit Non-Advocates***. With this strict definition, 49% of the respondents were found to be *Transit Advocates*. This measure of advocacy provides a useful way to distinguish among respondents; however, more research is needed to identify the underlying indicators of "true" transit advocacy.

Figure 3
Transit Advocacy Defined as Support for Raising Sales Tax
(n=3308)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

There are significant differences noted in terms of support for transit. (These can be examined further in the detailed tabulations provided under separate cover.) The differences are:

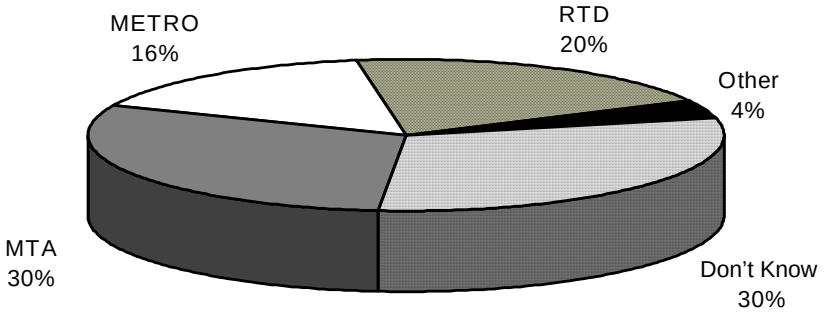
- When it comes to raising the sales tax to pay for public transit improvements, only the Central, San Gabriel Valley, and Southeast regions had a majority who said they are willing to do so.

- The younger (less than 34 years old) and older generations (over 65 years old) are usually more supportive of public transit than the generation of active adults (35 to 64 years old).

Transportation Agency's Name

Respondents were asked to provide the name of the transportation agency that oversees LA County. **Less than one-third of the respondents (30%) were able to identify LACMTA as the transportation agency in Los Angeles County.** About 15% of respondents identified METRO as the name of the transportation agency, and 20% reported RTD as the appropriate name (see Figure 4). Finally, 30% of respondents said they don't know the name of the transportation agency.

Figure 4
Agency Name Awareness
(n=2353)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Again, statistically significant differences in respondents' knowledge of the transportation agency's name were found across gender, geographic, and age groups:

- Male respondents are more knowledgeable of the name LACMTA than their female counterparts. About 36% of male respondents recall LACMTA as the name of the transportation agency, and a total of 54% indicated either LACMTA or METRO as the name, while only 25% of female respondents said LACMTA was the name of the transportation agency, and 39% recalled either LACMTA or METRO.

- Respondents living in the Central, Westside, South Bay, and San Fernando Valley areas identify LACMTA as the name of the transportation agency in greater proportion than respondents from other regions. The name LACMTA is best known in the Central area

with 37% of respondents correctly identifying the name. Percentages

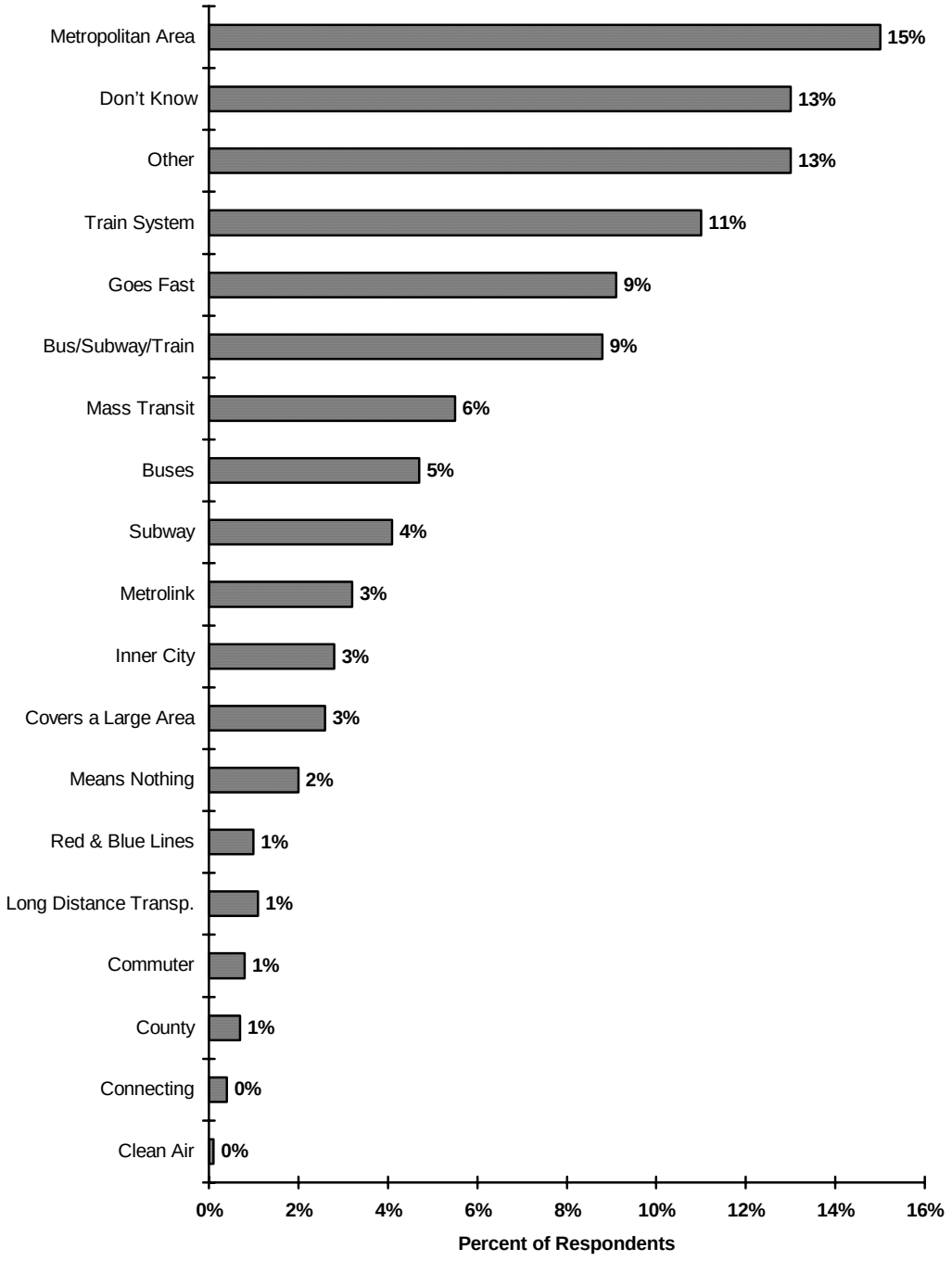
of name recognition may be due to the levels of service actually operating in each area.

- Finally, respondents in the 18-24 and 35-54 age groups recall the name of LACMTA more often than those in other age groups.

Meaning of METRO

Following the question on the name of the transportation agency, respondents were asked about the meaning of the word METRO. For the largest proportion of respondents, METRO means a metropolitan area or a city (16%). Even when multiple responses are combined, only 36% of them associate METRO with either buses, train system, bus/subway/train, Red and Blue Lines, subway, or mass transit.

Figure 5
In Terms of Public Transportation in LA County,
What Does "METRO" Mean to You?



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Data are from a multiple response item and are percentages of responses (rounded).

Assessment of LACMTA's Image

Respondents were asked to agree or disagree with four statements describing LACMTA's efficiency, attentiveness to the needs of LA County residents and level of service. The four statements were:

1. LACMTA has efficient and cost-conscious management.

2. LACMTA effectively manages a geographically complex public transportation system.

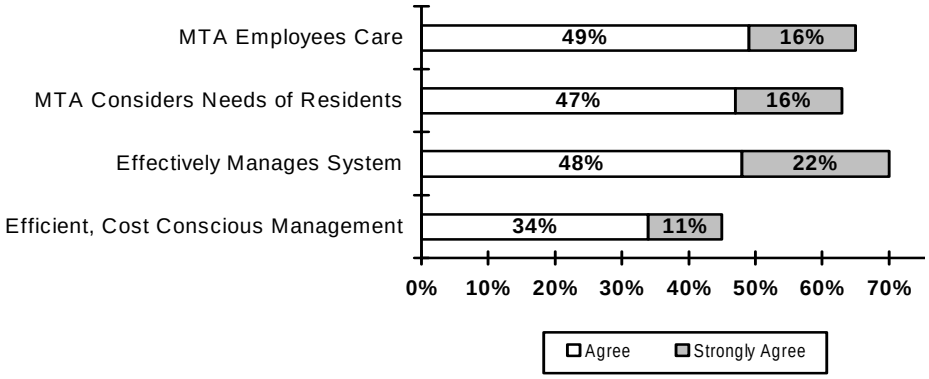
3. LACMTA decision-makers consider the needs of LA County residents.

4. LACMTA employees care about providing quality service.

Answers were rated on a scale of 1 to 5 where 1 is "*strongly disagree*," 3 is "*neither agree nor disagree*," and 5 is "*strongly agree*."

Findings reveal that a majority of respondents feel positively about the LACMTA. Seventy percent of the respondents "agree" or "strongly agree" that LACMTA effectively manages a geographically complex public transportation system; 65% "agree" or "strongly agree" that LACMTA employees care about providing quality service; and 63% "agree" or "strongly agree" that LACMTA decision makers consider the needs of Los Angeles County residents. Only 45% "agree" or "strongly agree" that LACMTA has efficient and cost-conscious management."

Figure 6
Agreement with Statements about LACMTA



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not total 100 due to rounding and the omission of "don't know" or "refused".

Several key differences exist among subgroups. These can be examined in the detailed statistical tables provided under separate cover.

- Respondents differ significantly in their rating of LACMTA depending on where they live. Areas where LACMTA's image is the strongest

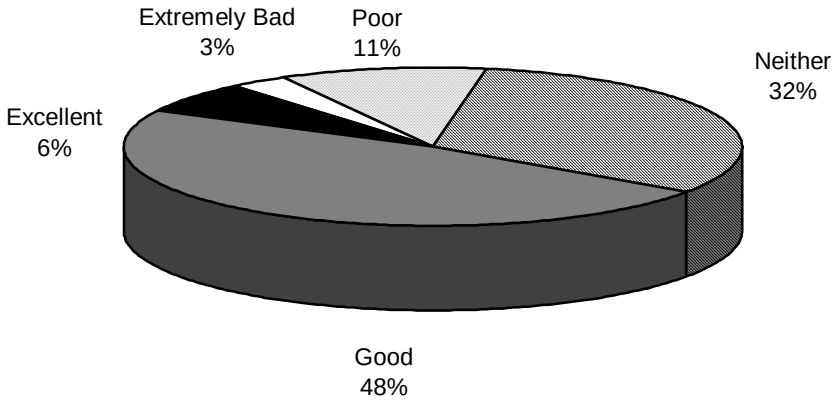
are: the Central and Southeast areas. Areas where LACMTA's image is the poorest are: the Westside, the San Fernando Valley, and North LA County. These ratings may reflect the levels of service actually operating in each area, among other things.

- LACMTA's image varies substantially with age. Again, the younger (18-34 years old) and older (over 75 years old) generations were found to be the most positive about LACMTA's image, and the 35-64 age group to be the least supportive.

Ratings of Overall Quality of Transit Service

The LACMTA was described for respondents (by the interviewers) as the agency that oversees public transit services for all of Los Angeles County, and that, along with other agencies, operates the bus and rail service. Then respondents were asked to rate the quality of transit service based on what they know or may have heard about the LACMTA. The mean score was 3.4 (slightly above average) on a scale of 1 to 5, where 1 is "*extremely bad*," 3 is "*neither good nor bad*," and 5 is "*excellent*." By far, the largest number of respondents rated the quality of transit service as "good" (48%), followed by "neither good nor bad" (32%).

Figure 7
Public's Ratings of MTA Overall Transit Service Quality
(n=3228)



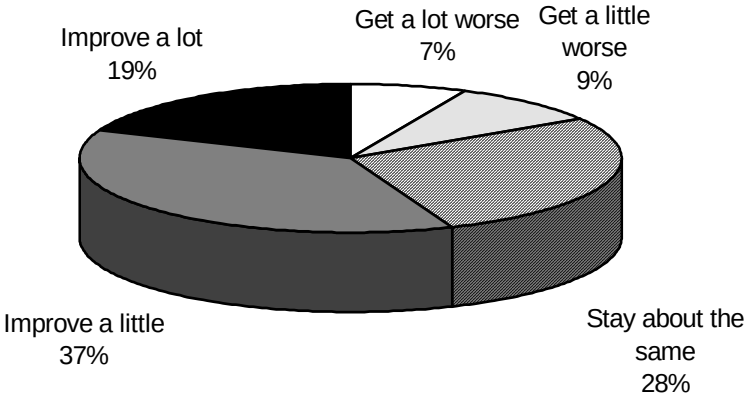
Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

People whose usual modes for various trip purposes were bus/train or carpool/vanpool rated the overall quality of transit service significantly more favorably than did those who drove alone. For example, 63% of bus/train users to making work trips rated the transit service as "good" or "excellent," compared to 58% of carpool/vanpoolers or 50% of drive alones. Blacks and Hispanics were also more likely than other racial/ethnic groups to rate transit service as "good" or "excellent" - Asian (43%), Black (61%), Hispanic (65%), and White (42%).

Optimism about Future Quality of Service

Respondents were optimistic about the overall quality of transit service in Los Angeles County in the next two years (mean score 3.65). More than half (56%) felt that the overall quality would improve. Slightly over one-fourth (28%) felt it would stay the same. Pessimists accounted for only 16% of the sample. Respondents residing in the San Fernando Valley were more likely to be pessimistic than other persons.

Figure 8
Opinions about Future Quality of LACMTA Service
(n = 3385)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Among commuters, people who drove alone to work were mildly optimistic about the future -- 38% felt that the overall quality would "improve a little" and 32% felt it would "stay about the same." On the other hand, people who took transit (bus/train) to work were quite optimistic -- 29% felt quality would "improve a lot" and 33% felt it would "improve a little." Carpool/vanpoolers were also very optimistic -- 24% felt overall quality would "improve a lot" and 39% felt it would "improve a little."

TRAVEL BEHAVIORS OF LOS ANGELES COUNTY RESIDENTS

This section describes the typical travel behaviors reported by Los Angeles County residents.

Mobility

The sample was very mobile. Most people (60%) traveled every day to go to work or shop or visit, or go to school, church, or other destinations. Four out of five people (82%) traveled five or more days per week.

Table 7
Number of Days Traveled Per Week
(n=3385)

Days Traveled/ Week	Frequency	Percent	Cumulative Percent
Seven Days	2033	60%	60%
Six Days	267	8%	68%
Five Days	472	14%	82%
Four Days	162	5%	87%
Three Days	156	5%	92%
Less than Three Days	274	8%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Respondents who reported infrequent travel (less than 3 days per week) are primarily:

- female (11% versus 5% of males)
- low income (19% of those with incomes of less than $10,000)
- Hispanic (11% versus 9% Asian, 8% Black, 5% White and 6% other), and
- seniors (20% of those over age 65).

Usual Means of Travel to Work

Sixty-eight percent (68%) of full-time or part-time employed respondents usually “drove alone” to work, 13% used “carpools/vanpools,” and 14% used “buses or trains.” 1990 journey-to-work data for Los Angeles County shows that 70% of workers 16 years and over drive alone to work, 15% travel to work in carpools, and 7% use buses or trains. The level of bus/train usage reported in the FY96-97 Survey of Los Angeles County Residents is higher than that reported in the journey-to-work data and should be explored in subsequent research efforts.

Table 8
Usual Travel Mode to Work
(n = 2440 Full-Time or Part-Time Employed Respondents)

Mode Used	Frequency	Percent	Cumulative Percent
Drive Alone	1668	68%	68%
Carpool/Vanpool	321	13%	82%
Bus/Train	353	14%	96%
Other	98	4%	99%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base of employed persons is minus "refused" and "non-applicable" responses.

Usual Modes of Travel for Purposes Other than Work

Tables 9 through 12 present respondents' usual travel mode for school, medical trips, shopping, and social/visiting. Overall, "drive alone" was the preferred means of travel among respondents for these trips, as well as for work trips. Percentages of respondents who reported "usually" using bus/train for medical, shopping, and social trips were comparable to those reported for work trips (ranging from 14% to 17%). This finding suggests that bus/train users consistently use transit for all trip purposes. The percentage of bus/train users for school trips (24%) was higher than for other trip purposes measured; however, these users represent a special population.

Table 9
Usual Travel Mode to School
(n = 505 Students)

Mode of Travel	Frequency	Percent	Cumulative Percent
Drive Alone	256	51%	51%
Carpool/Vanpool	79	16%	67%
Bus/Train	121	24%	91%
Other	48	9%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base of students is minus "refused" and "non-applicable" responses.

Table 10
Usual Travel Mode for Medical Trips
(n = 3332)

Mode of Travel	Frequency	Percent	Cumulative Percent
Drive Alone	2264	68%	68%
Carpool/Vanpool	411	12%	80%
Bus/Train	555	17%	97%
Other	102	3%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base is minus "refused" and "non-applicable" responses.

Table 11
Usual Travel Mode for Shopping Trips
(n = 3344)

Mode of Travel	Frequency	Percent	Cumulative Percent
Drive Alone	1995	60%	60%
Carpool/Vanpool	708	21%	81%
Bus/Train	472	14%	95%
Other	169	5%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base is minus "refused" and "non-applicable" responses.

Table 12
Usual Travel Mode for Social (Visiting) Trips
(n = 3322)

Mode of Travel	Frequency	Percent	Cumulative Percent
Drive Alone	1830	55%	55%
Carpool/Vanpool	956	29%	84%
Bus/Train	456	14%	98%
Other	80	2%	100%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base is minus "refused" and "not applicable" responses.

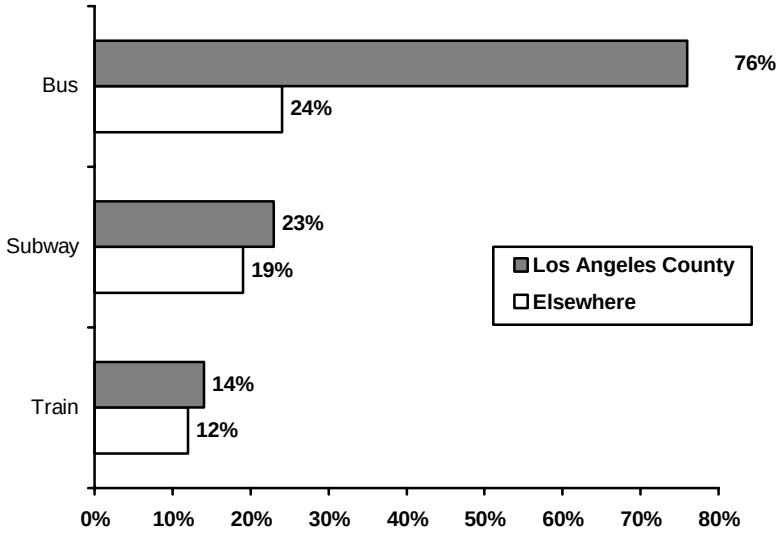
EXPERIENCE WITH PUBLIC TRANSPORTATION

This section describes the amount of experience or familiarity respondents have had with public transportation.

Used Bus, Subway, or Commuter Train

Although the majority of respondents reported their trips are typically made by driving alone, most have experienced riding transit. When asked if any of the following forms of public transit had "ever" been used in Los Angeles County, 76% said "yes" for bus, 23% "yes" for subway, and 14% said "yes" for commuter train. Because the percentage for "bus experience in Los Angeles" is quite high, we believe that respondents may have interpreted the question to include any type of bus, including school buses, employer-sponsored vans, or even airport buses for remote parking lots.

Figure 9
"Ever Use" Bus, Subway, and Commuter Train
(n=3385)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base is minus "don't know" and "refused" responses.

Locations of Transit Use Outside Los Angeles County

Outside of Los Angeles County, New York, San Francisco, and San Diego have been the principal locations of respondents' transit experiences. Other locations mentioned with reasonable frequency are presented in Table 13.

Table 13
Locations of Transit Experience Outside of Los Angeles County

Transit System Location	Bus n=775	Subway n=635	Train n=362
San Francisco	13%	13%	9%
New York	13%	33%	19%
San Diego	5%	0%	12%
Europe	5%	7%	8%
Orange County	5%	0%	3%
Chicago	4%	7%	4%
Washington, DC	4%	9%	5%
Mexico	3%	2%	1%
London	2%	6%	3%
Boston	2%	3%	4%
Seattle	2%	1%	5%
Paris	1%	5%	1%
Other California	14%	2%	8%
Other US Location	22%	9%	16%
Other Location outside US	5%	2%	5%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Data are from a multiple response item and are percent of responses (rounded).

Los Angeles County Transit Systems Used

Respondents who have used transit within Los Angeles County, most frequently reported the LACMTA (either by identifying the LACMTA, Metro, or RTD) as the transit system they have used. It is likely that respondents could not distinguish LACMTA from other service providers.

Table 14

Transit Systems "Ever Used" in Los Angeles County (n=3385)

Transit System	Count	Percentages
LACMTA Bus	1975	58%
LACMTA Blue Line	553	16%
LACMTA Red Line	377	11%
LACMTA Green Line	170	5%
Santa Monica	97	3%
Metrolink	87	3%
Long Beach	66	2%
Foothill	50	2%
Torrance	39	1%
LADOT (Dash)	27	1%
Culver City	22	1%
Montebello	22	1%
Gardena	18	1%
Santa Clarita	13	0%
Norwalk	8	0%
Antelope Valley	4	0%
Commerce	3	0%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Base is respondents who used bus in Los Angeles County, minus "don't know" and "refused" responses.

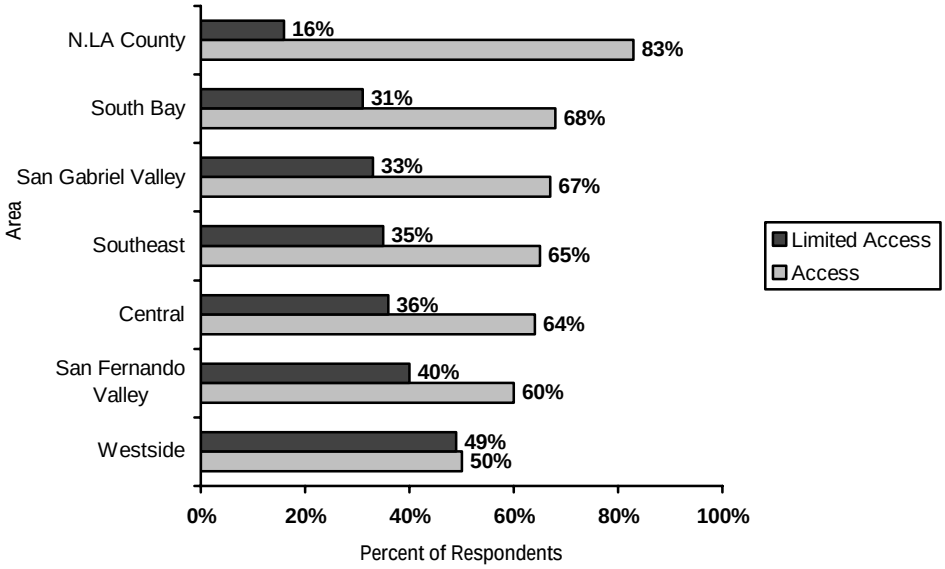
FACTORS AFFECTING TRANSIT USE

Travel behavior is influenced by a number of factors including access to vehicles and public transportation services, activities outside of the home, and attitudes about public transportation options. This section presents survey data related to these issues.

Vehicle Availability

Sixty-three percent of total respondents reported "usually" or "always" having access to a vehicle whether the vehicle belongs to their household or not. According to 1990 Census data, 57% of residents of Los Angeles County reported having a vehicle kept at home and available for use by household members. These percentages varied significantly among the planning areas, from 83% in North County to 50% in the Westside.

Figure 10
Access to Vehicle by MTA Planning Area
(n=3370)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Limited Access = "Never" or "Occasionally" have access to vehicle; Access = "Always" or "Usually" have access to vehicle. Percentages may not total 100% due to rounding and omission of "don't know" and "refused."

Vehicle Ownership

Vehicle ownership is high in Los Angeles County. As is noted below, respondents reported an average of 1.93 vehicles per household was reported by survey respondents. This statistic is slightly higher than the 1990 Census statistic of 1.70 for Los Angeles County. The sample statistic varies by area as follows:

- 2.13 North County (st. dev. = 1.22)
- 2.12 San Gabriel Valley (st. dev. = 1.29)
- 2.04 San Fernando Valley (st. dev. = 1.42)
- 1.99 South Bay (st. dev. = 1.23)
- 1.91 Southeast (st. dev. = 1.32)
- 1.70 Westside (st. dev. = 1.18)
- 1.66 Central (st. dev. = 1.39)

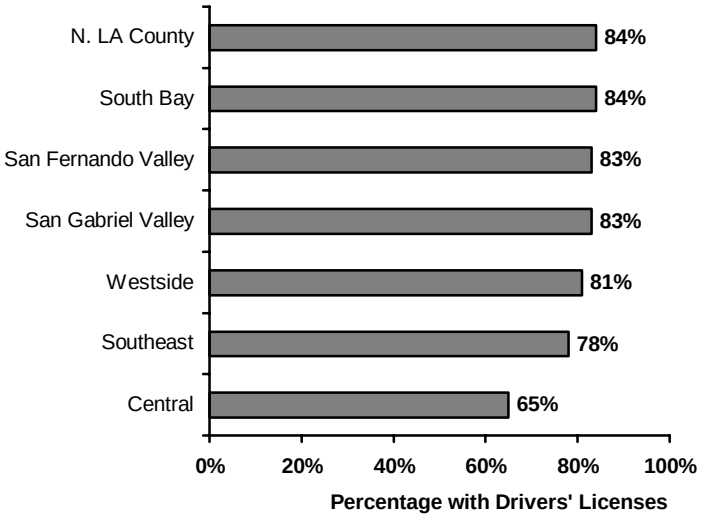
In total, 60% of respondents reported owning more than one vehicle. This percentage varies by area as follows:

- 71% North County
- 67% San Gabriel Valley
- 66% South Bay
- 63% San Fernando Valley
- 57% Southeast
- 53% Westside
- 45% Central

Drivers' Licenses

In addition, most respondents (80%) had a driver's license. This percentage varies by area with the highest percentage in the South Bay and North Los Angeles County (84%) and the lowest in the Central area (65%).

Figure 11
Drivers' Licenses by MTA Planning Area
(n=3385)

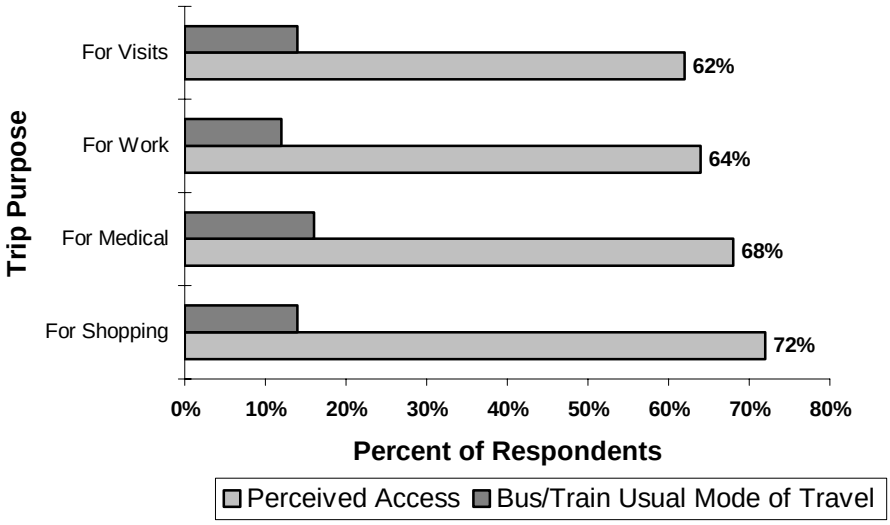


Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Access to Transit

Even though bus/train is the usual mode of travel for only a minority of respondents, most respondents to the survey perceive that **<u>it is possible for them to take public transit</u> for certain trip purposes.**

Figure 12
Perceived Access to Transit Compared to Use of Bus/Train for Travel
(n=3385)

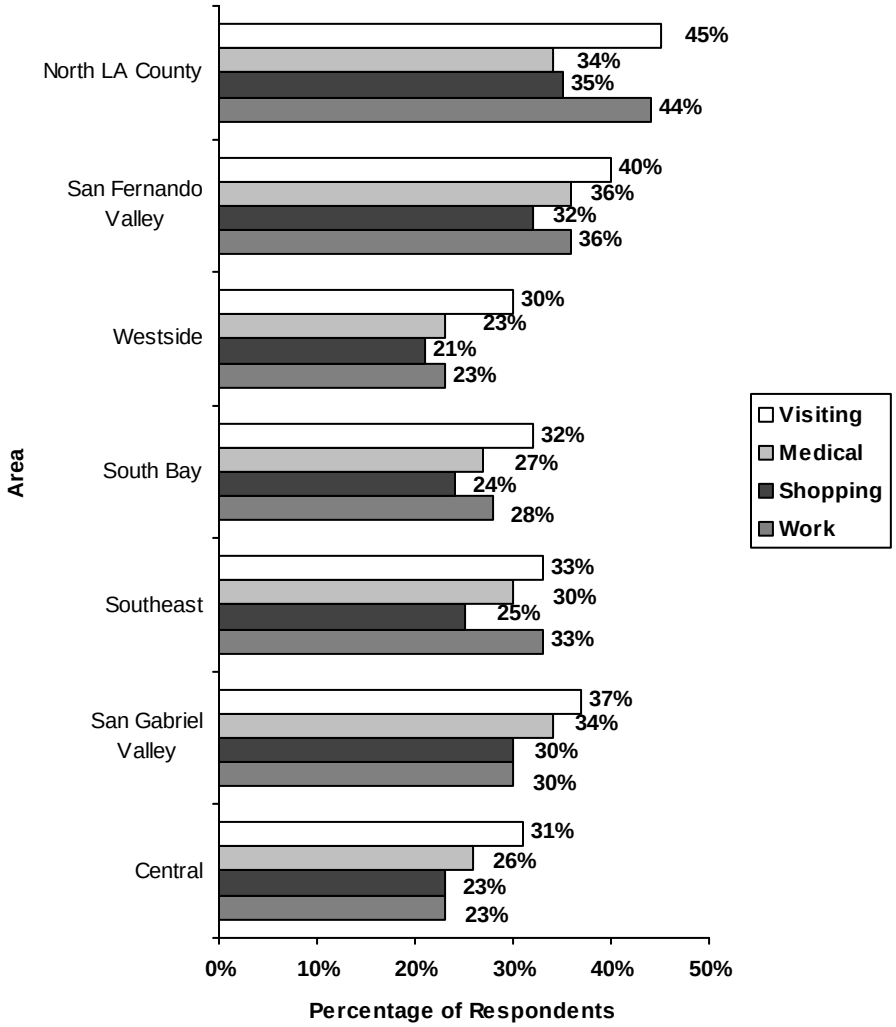


Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Reports about access to transit varied by planning area, and within planning area by trip purpose. In the Central area, for example, 23% reported no access for work trips, but 31% reported no access for social trips. In the San Fernando Valley, 32% reported no access for shopping trips, but 36% reported no access for work trips.

In general, respondents in the Central area provided the most reports of "access to transit," and respondents in North Los Angeles County provided the most reports of lack of access.

Figure 13
Perceptions of Lack of Access to Transit by Planning Area
Percentage reports of "NO ACCESS"



Source: FY96-97 Survey of Los Angeles County Residents
(Weighted for Non-Telephone Households)

Overall, the largest percentages of respondents reported lack of transit access for social (visiting) trips. A likely reason for this perception is that the destinations for these types of trips are wide-ranging (i.e., outside of major travel corridors). The smallest percentages of respondents reported lack of transit access for shopping trips. A likely reason for this is the perception that shopping trips are local and located on major streets.

Significantly, one-fourth to one-third of respondents in all planning areas reported no access for medical trips. These types of trips are often cited as an important *social safety net* function for transit.

Demographics of Bus/Train Commuters

It is no surprise that respondents most likely to be bus/train commuters report very low household income levels and have limited access to personal vehicles. An examination of the 353 respondents who used bus/train to "usually" travel to work reveals that they are characterized as:

- 53% had limited access to a vehicle (within or outside the household),
- 51% had no driver's license,
- 67% own no more than one vehicle in household,
- 31% own zero vehicles,
- 69% reported household incomes less than $25,000, and
- 43% reported household incomes less than $15,000.

Ethnicity and national origin also appear to be related to use of bus/train as the mode to work. Of bus/train commuters:

- 64% are Hispanic, and
- 57% are foreign born.

Note 1: *The above percentages are drawn from row percents in the Detailed Tabulations report for the FY96-97 Survey of Los Angeles County Residents.*

Note 2: *The surveys of bus and rail riders conducted as components of the SPMRP suggest that bus and train riders have different demographic characteristics which cannot be disaggregated in this analysis because of the way in which the questionnaire item was worded.*

The relationship between ethnicity and national origin and bus/train commute status is associated with the fact that these population groups have limited access to personal vehicles and low socioeconomic status. For example, 46% of Hispanics reported that they "never" or "occasionally" have access to a vehicle and 39% reported that they do not have a driver's license. These percentages are significantly higher than those reported by other racial/ethnic groups. In addition, Hispanics report significantly lower household incomes. Thirty-six percent of Hispanics reported household incomes of less than $15,000, and 63% reported household incomes of less than $25,000.

Of the seven LACMTA planning areas, respondents in the Central (27%) and Westside (20%) were most likely to report bus/train as their commute mode. The vast majority of respondents in these areas who traveled by bus/train were Hispanic.

As with the mode to work data, Hispanics reported using bus/train for these trip purposes with greater frequency than other racial groups. Of the respondents who reported using bus/train, Hispanics represented:

- 69% of reports for social/visiting trips
- 67% of reports for medical trips
- 66% of reports for shopping trips
- 48% of reports for school trips.

Travel Time by Transit

Versus Auto

The data suggest that residents of Los Angeles County do not commute to work via bus/train unless they have to. One reason for this may be that commutes by bus/train are perceived to be almost two-and-one-half times as long as commutes by auto.

On average, respondents perceived commute time by transit to be two-and-one-half (2.5) times as long as commute time by driving alone (63 minutes by transit compared to 24 minutes by driving alone). The perception that commuting by transit would take an average of 2.5 times as long as commuting by driving alone was consistent regardless of the respondents' area of residence. Respondents who used bus/train to travel to work reported significantly shorter commute times for transit (56 minutes) than "drive alones" (66 minutes). However, their estimates of travel time by transit were still more than twice as long as their estimates of drive time.

Table 15
Perceived Commute Times by "Drive Alones" and "Bus/Train Riders"

Mode to Work	Estimate of "Drive" Time	Estimate of "Transit" Time
Total Sample	25 minutes	63 minutes
Drive Alone	25 minutes	66 minutes
Bus/Train	25 minutes	56 minutes

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Employer-Provided Transit Subsidy

Of employed respondents, 19% reported that their employer helps pay for bus/train fare. Of respondents who received a subsidy, about one in five reported bus/train as their usual mode to work. **Thus, the data suggest that availability of an employer subsidy, by itself, is not a strong influencer of the use of buses/trains as a commute mode. The impact of such a subsidy on transit use requires further research. The other sections in this chapter provide insight into other possible influencers.**

Perceptions of Bus Riders

Most respondents reported some experience using the bus. Therefore, most were able and willing to respond to the question on their image of bus riders. The most often cited descriptions of bus riders were (see Figure 14): "low income" (54%), "working class" (23%), "average people" (16%), "all kinds of people" (15%), "students" (14%), "no vehicle household" (13%), "senior citizens" (9%), "crazy/strange" (7%), and "middle class" (6%).

As the above descriptions indicate, there exists significant inconsistency in respondents' perceptions of bus riders. Three distinct images are in evidence:

- The predominant image is associated with "low income," "working class," "uneducated," "economical/thrifty" and "no vehicle household" (34% of all responses).

- A reasonably large number of respondents described bus riders as "average people," "all kinds of people," "friendly/considerate," quiet/calm," "families," "middle class," "clean cut" and "safe" (28% of all responses).

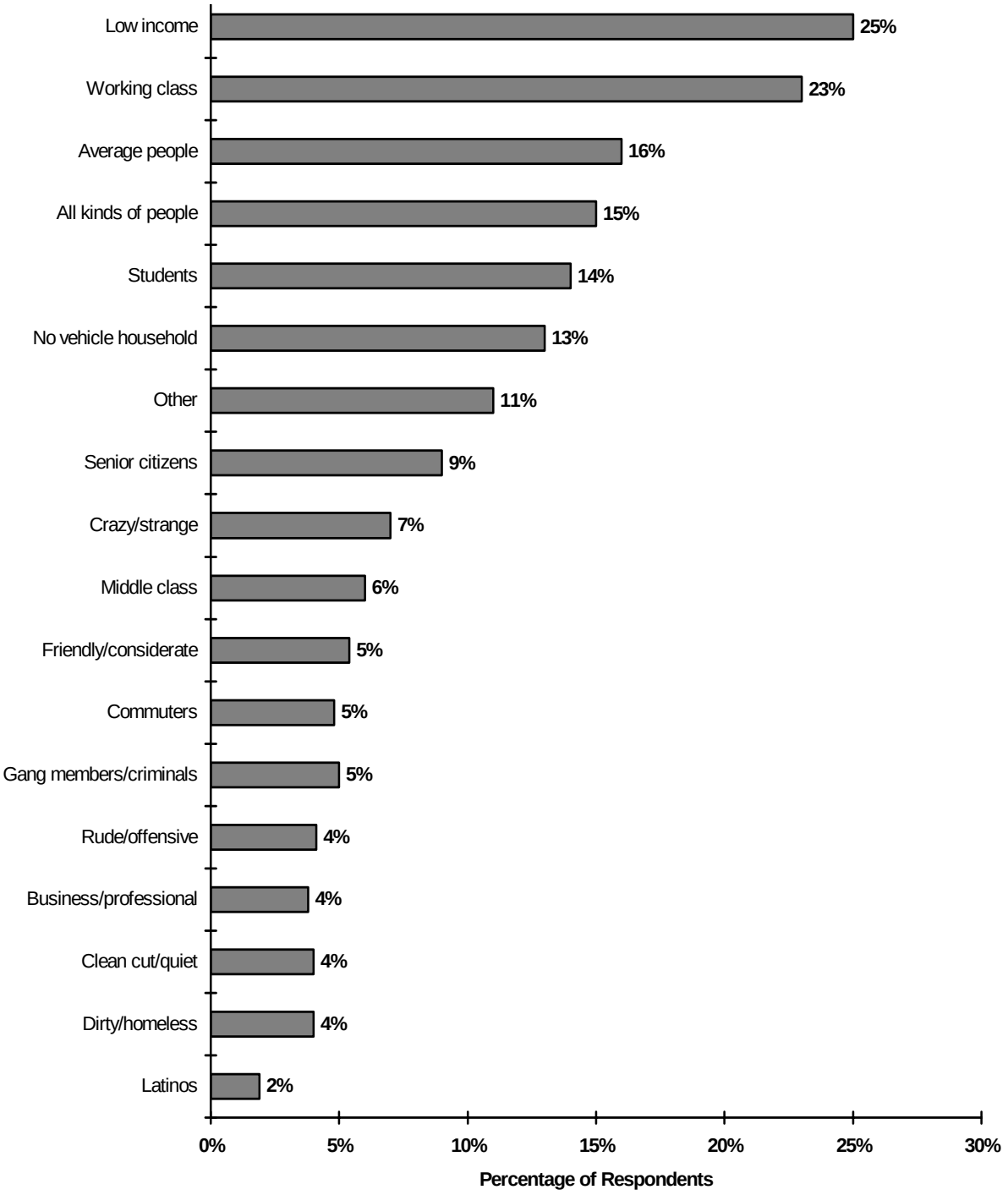
- A less frequently cited, but more negative, perception of bus riders emerges from descriptions such as "crazy/strange," "unpredictable," "dirty/unclean," "homeless," "criminals," "rude/offensive," and "gang members" (12% of all responses).

Perceptions of Train Riders

Unlike bus riders, train riders enjoy an unequivocal positive image among respondents. However, "don't know/refused" was the most often cited answer, probably because the number of respondents who have an experience with riding the train/subway in LA County is limited. The three most often cited descriptions of train riders were (see Figure 15): "working class" (13%), "business/professional" (13%), and "commuters" (10%).

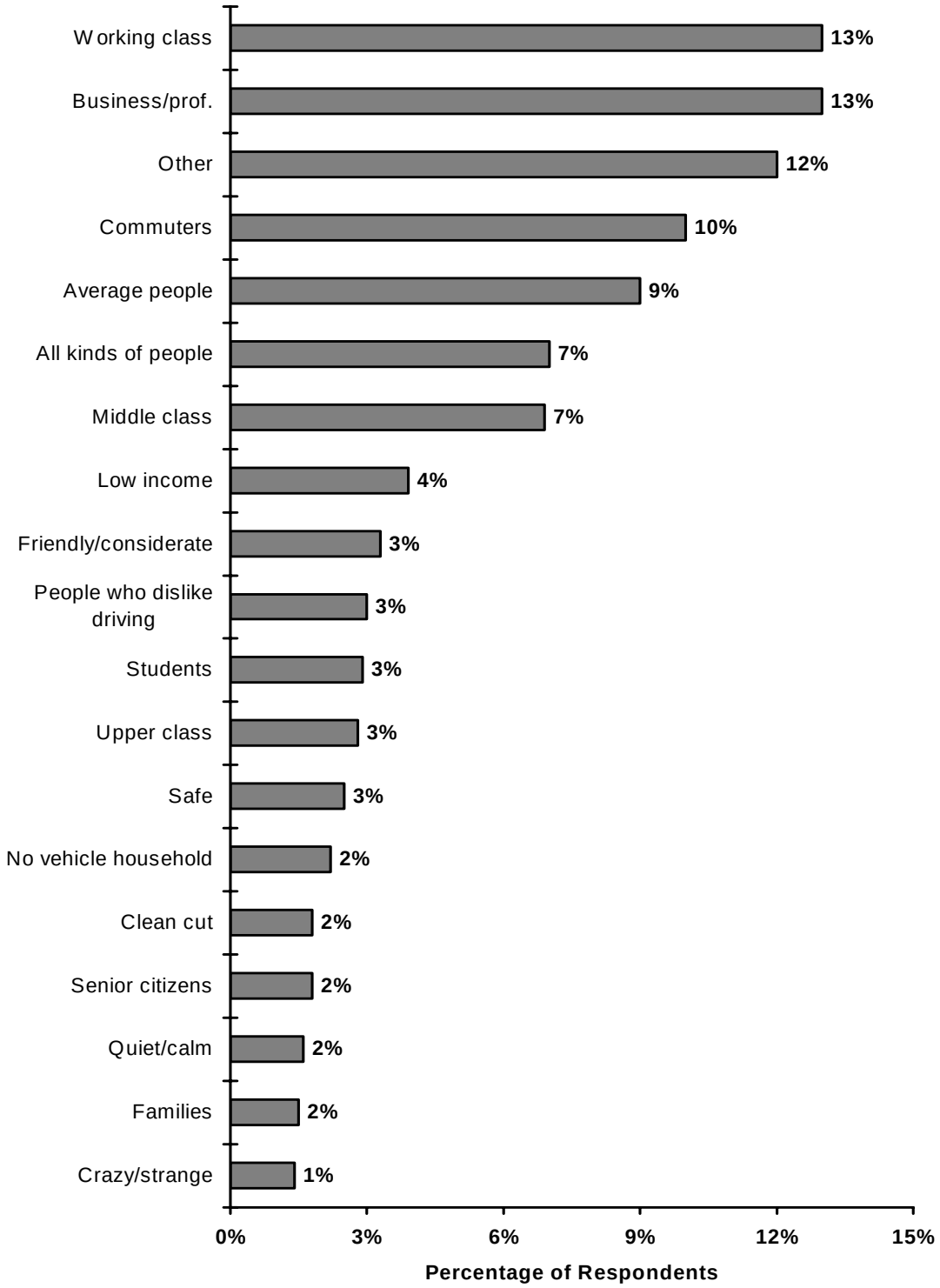
The perceptions of train riders appear to be less contradictory than those of bus riders. However there seems to exist a dual image of either "working class people" or "business/professional." Negative attributes ("crazy/strange," "rude/offensive," "dirty/unclean," "criminals," "gang members," "homeless," "unpredictable," and "unemployed") were not used very often. All combined, they represented only 4% of all responses.

Figure 14 - Respondents' Descriptions of Bus Riders (n=2322)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Data are multiple response items and are percent of responses (rounded); base is minus "don't know" and "refused" responses.

Figure 15 - Respondents' Descriptions of Train Riders (n=1763)



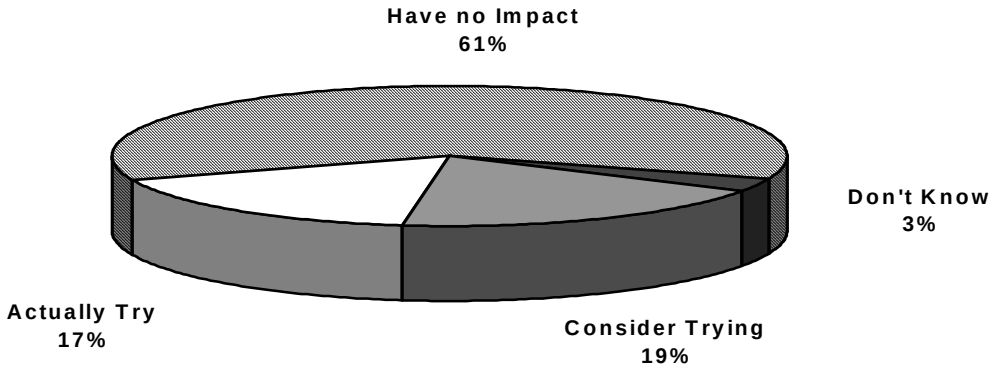
Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Data are multiple response items and are percent of responses (rounded); base is minus "don't know" and "refused" responses.

Metro Stored-Value Card

"Ease of paying fare" is a factor that is often considered in making it more convenient for passengers to use transit. The LACMTA is considering the introduction of a Metro "Stored-Value Card." **When the possible impact of the card's introduction on trial ridership was examined, the results were encouraging.**

The concept of the card was explained to respondents, and they were asked if the card would prompt them to consider taking the bus (19%), actually try the bus (17%), or have no impact on their decision (61%).

Figure 16
Impact of Metro Stored-Value Card On Trial Ridership
(n = 3269)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

The data suggest that between 12% and 16% of respondents who currently drive alone would be influenced to "try" transit through introduction of the Metro Stored-Value Card.

Table 16
Impact of Metro Stored-Value Card among "Drive Alones"

Drive Alone Usual Travel Mode	Consider	Try	No Impact
To Work	16%	14%	68%
To Medical	17%	13%	67%
To Shop	18%	12%	67%
To School	18%	16%	64%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not total 100% due to omission of "don't know" and "refused".

Reasons Provided for Not Using Transit

The previous pages examined a number of factors that affect people's decision to use transit. Survey respondents who have used transit in Los Angeles County, but not in the past 30 days, were asked, *"Why not?"* As the list below indicates, the reasons that most people have not used transit in the past 30 days are factors that are outside of the LACMTA's control. Only about one-third are factors that LACMTA may be able to influence partially.

Table 17
Reasons People Have Not Used Transit
(n=1249)

No.	Reasons	Percent	LACMTA Influence Possible
1.	Own/bought car	42%	
2.	No need to ride transit	14%	
3.	Transit is too slow	9%	X
4.	Not convenient	9%	X
5.	No access	8%	X
6.	Need car	4%	
7.	Too expensive	2%	X
8.	Carpool	1%	
9.	Too dangerous	2%	X
10.	Disability	1%	X
11.	Walk/Bikes	1%	
12.	Uncomfortable/Conditions unacceptable	1%	
	Other responses	6%	
	Total	**100%**	

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Data are from a multiple response item and are percent of responses (rounded).

Of these factors that the LACMTA could possibly influence, the most frequently mentioned were service-configuration related: "Transit too slow" and "transit not convenient / no access to transit." This finding is confirmed by responses to the question: "What could be done to make the public transit system in LA County a better option for you?" The top recommendations provided by respondents were:

1. **Expand service, improve access, make more convenient (22%)**
2. **Provide faster, more frequent or direct service (17%)**
3. **Improve schedules (11%)**
4. **Add more vehicles (7%)**
5. **Make less expensive (7%)**
6. **Improve personal safety (6%).**

SERVICE PRIORITIES AND PERCEPTIONS OF SERVICE QUALITY

This section examines the perceptions that residents of Los Angeles County have about public transit, in general, and LACMTA service, in particular, based on what they know or have heard.

Importance of Service Attributes

Respondents were asked to rate the importance of various service attributes in their decision to use or not use public transit in Los Angeles County, on a scale of 1 to 5, where 1 is "*very unimportant*," 3 is "*neutral*," and 5 is "*very important*."

All service attributes were given scores that would characterize them as "important". The mean scores, in order of importance, for each attribute are: "schedule information" (4.6), "cleanliness of train" (4.5), "cleanliness of bus" (4.5), "travel time" (4.4), "cost" (4.1), and "vehicle exterior" (3.6) -- see Figure 17 on the following page.

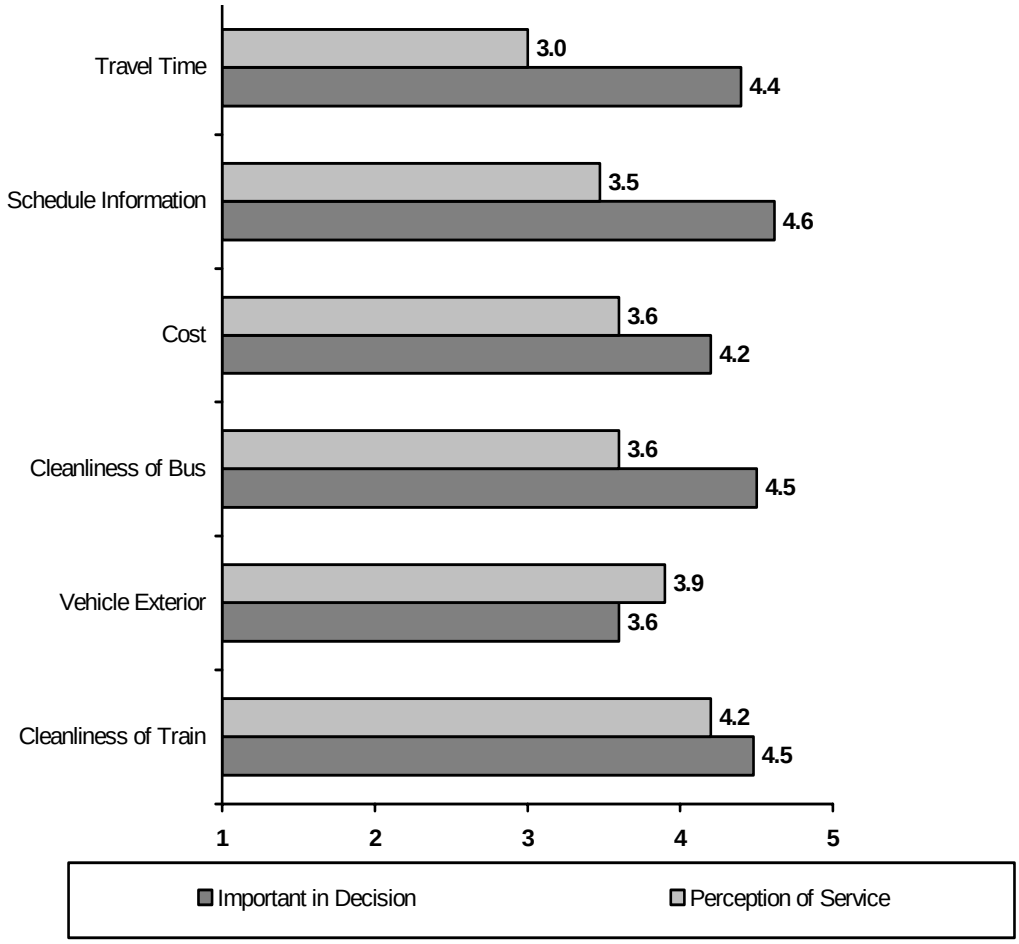
When "mode to work" was used as a control variable for mean ratings of importance, bus/train rider ratings of importance were significantly higher than those of "drive alones" on the following attributes: "cleanliness of bus" (4.7 vs. 4.4), "cleanliness of train" (4.6 vs. 4.4), "vehicle exterior" (3.9 vs. 3.5), and "cost" (4.3 vs. 4.1). Mean ratings of importance of travel time were slightly higher for "drive alones" (4.5 vs. 4.4), and mean ratings for schedule information were comparable between the two groups.

Perceptions of Service Quality

Respondents were also asked to rate their perception of these same attributes on a scale of 1 to 5, where 1 is "*very bad*," 3 is "*neither good nor bad*," and 5 is "*very good*." **Quality ratings of service attributes, in order of rank, for each attribute are: "cleanliness of train" (4.2), "vehicle exterior" (3.9), "cost" (3.6), "cleanliness of bus" (3.6), "schedule information" (3.5), and "travel time" (3.0) --** see Figure 17 on the following page.

When "mode to work" was used as a control variable for mean ratings in terms of perceptions, bus/train rider ratings were significantly more positive than those of "drive alones" on the following attributes: "travel time" (3.5 vs. 2.6), "schedule information" (3.8 vs. 3.3), "cleanliness of bus" (3.7 vs. 3.4), "cleanliness of train" (4.4 vs. 4.1), and "vehicle exteriors" (4.0 vs. 3.8). Perceptions of cost between the two groups were comparable.

Figure 17
Perception of Service vs. Importance in Decision to Use Transit



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Of the attributes that are most important to respondents, only cleanliness of train would appear to elicit a high level of satisfaction. On the other hand, travel time, which is one of the most important attributes, received the lowest service rating (although it is still on the positive side of the scale). Schedule information, which is the most important attribute, also received one of the lowest ratings.

SENSE OF PERSONAL SECURITY ON BUSES AND TRAINS

Focus groups, held prior to this survey, revealed that safety issues were a very essential component of public attitudes toward public transit in Los Angeles. This section presents findings related to feelings about personal security on buses and trains.

Ratings of Security

Respondents were asked to provide their sense of personal security on buses and trains during the different time periods of the day, at the bus stop and at the train station. A scale of 1 to 5, where 1 was "*very unsafe*," 3 was "*neither safe nor unsafe*," and 5 was "*very safe*," was used to quantify the level of security/insecurity felt by the respondents under the different situations/locations presented to them.

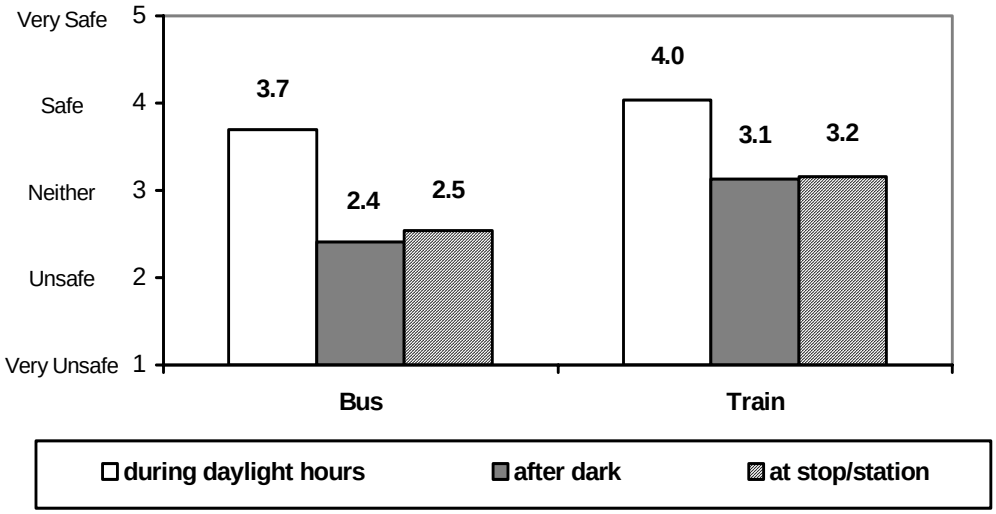
Table 18
Sense of Personal Security on Buses and Trains
(n = 3385)

Time/Location	Very Unsafe	Unsafe	Neither	Safe	Very Safe
Bus during daylight hours	5%	16%	4%	55%	17%
Train during daylight hours	2%	6%	3%	49%	24%
Bus after dark	27%	33%	4%	22%	5%
Train after dark	11%	21%	4%	33%	10%
At bus stop	24%	33%	9%	27%	4%
At train station	11%	20%	6%	39%	9%

Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not total 100 percent due to rounding and omitting "don't know/refused".

The majority of respondents indicated they feel "safe" or "very safe" riding the bus or the train during daylight hours. However, results indicate that respondents feel safer riding the train (mean score 3.6) than the bus (mean score 3.0), and feel safer riding public transit during daylight hours (mean score 3.8) than after dark (mean score 2.8).

Figure 18
Sense of Personal Security on Buses and Trains (mean scores)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Respondents indicated clearly their concerns about waiting at bus stops. A majority of respondents (57%) feel that it is "unsafe" or "very unsafe" to wait at the bus stop, while only 14% believe that it is "unsafe" or "very unsafe" to wait at the train station.

Further analysis of the data indicates that:

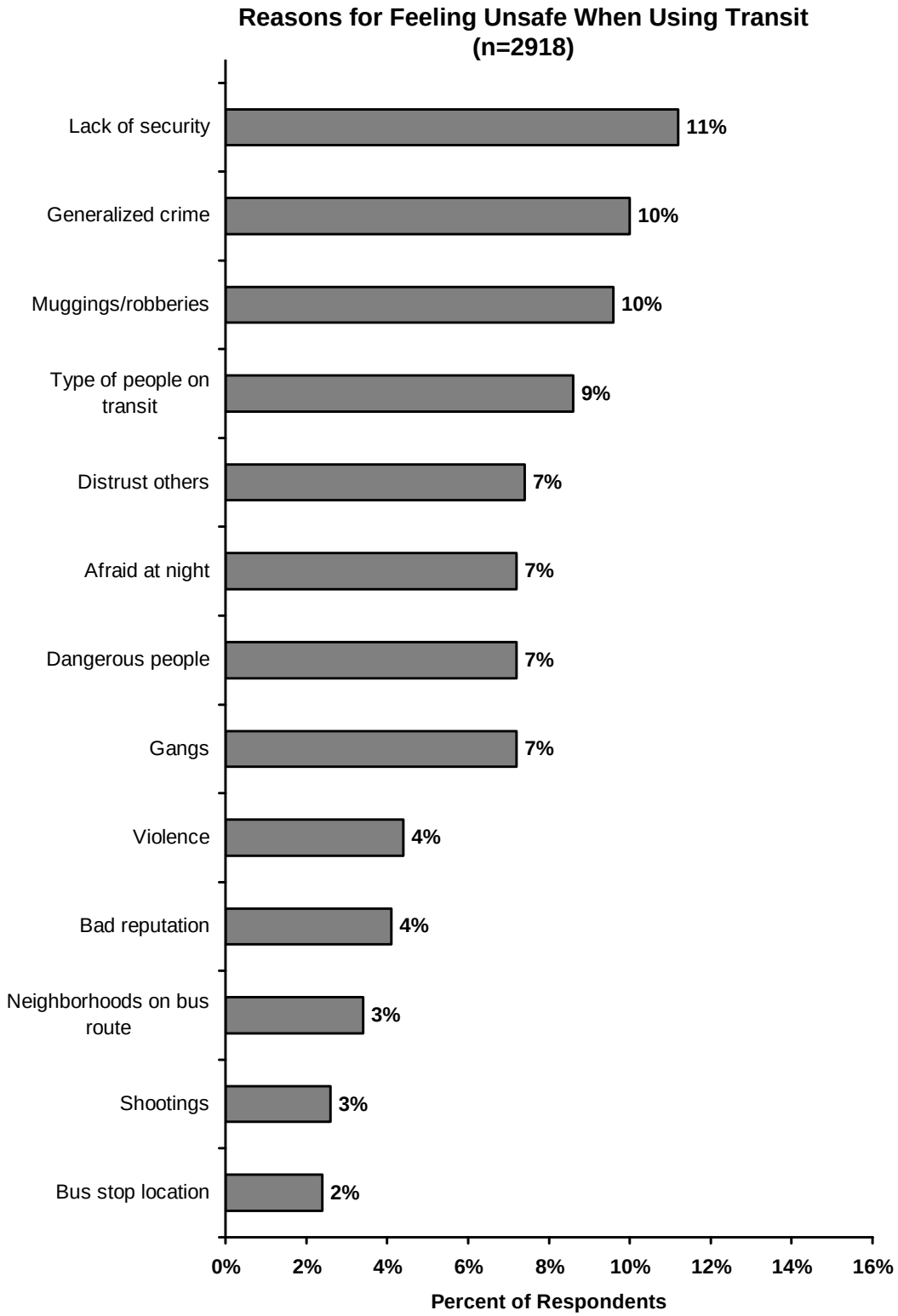
- there is a significant difference between male and female perceptions of safety. Male respondents tend to feel safer under all conditions and in all locations than female respondents. For example, while 35% of the male respondents indicated they feel "safe" or "very safe" riding buses after dark, only 21% of the female respondents felt the same and about two-thirds said they feel "unsafe" or "very unsafe."

- perceptions of safety vary significantly depending on where respondents live. Respondents who live in the Central, Southeast, and South Bay areas are more negative about safety on public transportation than respondents living in other areas. Respondents living in the Central area are the most concerned about their personal safety after dark, followed by respondents living in the Southeast and South Bay areas.

Reasons for Feeling Unsafe

Respondents who indicated they feel "unsafe" or "very unsafe" to any of the previous questions were prompted to explain *why* they feel unsafe. The ten most often cited reasons for feeling unsafe were "lack of security" (11%), "generalized crime" (10%), "muggings/robberies" (10%), "type of people on transit" (9%), "distrust of others" (7%), "afraid at night" (7%), "dangerous people" (7%), "gangs" (7%), and "violence" (4%).

Figure 19



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Data are from a multiple response item and are percent of responses (rounded).

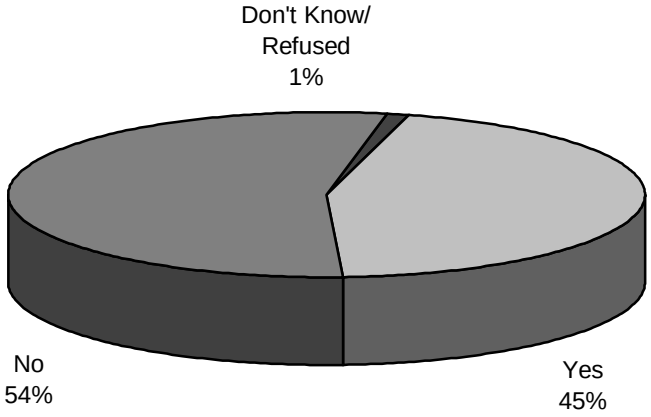
MEDIA, ADVERTISING, AND COMMUNICATIONS

This section presents results pertaining to marketing and communications issues, such as the effects of media coverage and advertising on perceptions of the LACMTA, awareness of the 1-800-COMMUTE number, and access to the Internet.

Media Coverage

Nearly half of respondents (45%) recalled hearing news stories about the LACMTA, bus or subway system in the past six months.

Figure 20
Recall of News Stories about LACMTA, Bus, or Subway System
(n=3356)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Ratings of the overall quality of transit service offered by the LACMTA were negatively associated with recall of news stories. Respondents who recalled news stories were two times as likely to rate the overall quality of transit service offered by the LACMTA as “poor” or “extremely bad” as those who had no recall. On the other hand, people who had no recall were 1.5 times as likely to rate the overall quality as “good” or “excellent” as those who recalled news stories.

The data suggest that higher income households are more likely to recall news stories; they are also more likely to be newspaper readers. At the same time, higher income households are less likely than lower income to rate the quality of service as “poor” or “extremely bad.” While a causal relationship can not be concluded, an association is evidenced between recall of news stories and ratings of quality of service. The LACMTA should consider using the news media to communicate positive stories about transit service quality.

An association was also found between recall of news stories and attitudes about the LACMTA as an organization. As is shown in Table 19 below, news coverage had the greatest impact on respondents' perceptions of LACMTA management as efficient and cost-conscious and the least influence on perceptions of LACMTA employees.

Table 19
Opinions about the LACMTA by Recall of News Stories

	No News Recall	***News Recall***	***Differ-ence***
	% Agree	***% Agree***	
LACMTA has efficient and cost-conscious management	64%	42%	*-22%*
LACMTA decision-makers consider needs of residents	75%	61%	*-14%*
LACMTA effectively manages complex system	79%	70%	*-9%*
LACMTA employees care about quality service	74%	69%	*-5%*

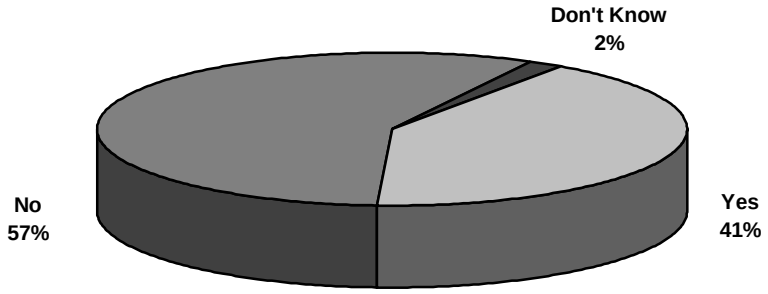
Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Transit Advertising

Two out of five (41%) respondents recalled seeing or hearing any public transit advertising in the past six months. The distribution vehicles mentioned by these respondents (in order of frequency; multiple responses were possible) were:

- 46% TV ads
- 27% ads on LACMTA vehicles
- 24% outdoor billboards
- 23% newspaper ads
- 14% radio ads

Figure 21
Awareness of Public Transit Advertising
(n=3325)

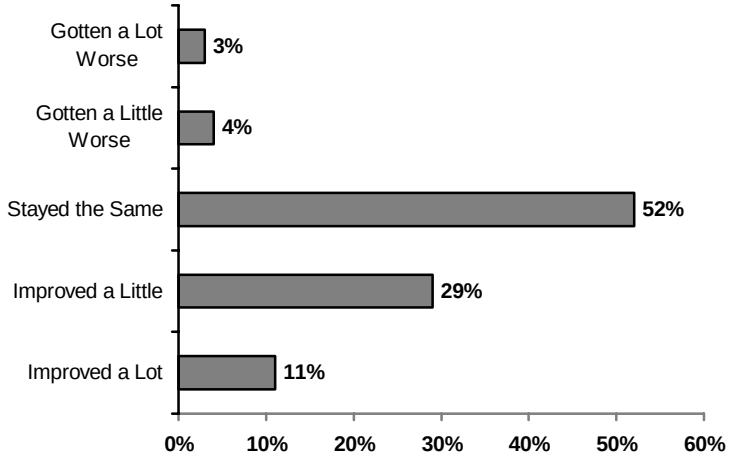


Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

LACMTA Advertising

The data suggest that advertising has had a positive effect on the public. Forty percent (40%) feel it has improved their image of the LACMTA; for one in two respondents (52%), advertising has had neither a positive nor a negative impact on their image of LACMTA.

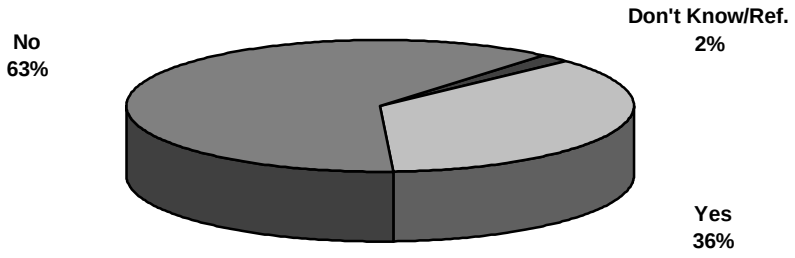
Figure 22
Impact of Advertising on Image of LACMTA
(n=1346)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not equal 100% due to omission of “don’t know/refused”.

Slightly over one-third of respondents (36%) were aware of the "*Travel Smart. . . Take Metro*" slogan.

Figure 23
Awareness of "Travel Smart, Take Metro" Slogan
(n=3329)

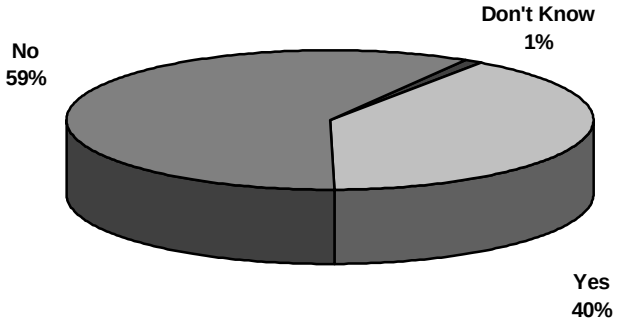


Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households).
Note: Percentages do not equal 100% due to rounding.

Awareness of Toll-Free Phone

Two of five respondents (40%) are aware of the toll-free number - 1-800-COMMUTE. Awareness of the toll-free number is significantly associated with educational attainment and race/ethnicity. The indications are that Hispanics and Blacks, and those with a high school or less education are more likely to be aware of the 1-800-COMMUTE than other subgroups.

Figure 24
Awareness of 1-800-COMMUTE
(n=3349)

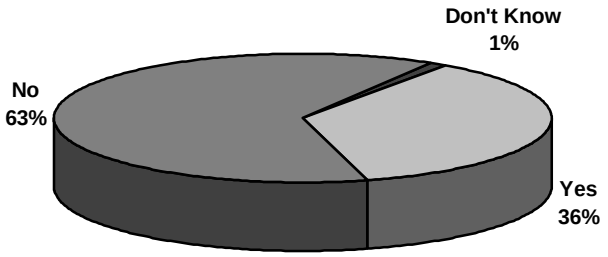


Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

Use of Internet

Slightly more than one-third of the respondents has access to the Internet, either at home or at work. Of these people, 71% said that they would use Internet access to get information on transit services.

Figure 25
Access to the Internet
(n=3385)



Source: FY96-97 Survey of Los Angeles County Residents (Weighted for Non-Telephone Households)

The data suggest that the people most likely to use transit would be the least likely to access information via the Internet. Internet access is significantly associated with both educational attainment and household income level. Access also varies by race/ethnicity, with one out of five Hispanics (20%) indicating access compared with 39% of Blacks and 48% of Whites, and 52% of Asians.