State of the Commute Report

2006

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

2006 STATE OF THE COMMUTE REPORT

Prepared by
Strategic Consulting & Research
for
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Southern California Association of Governments

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VISION

PROGRESS

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Ventura County Transportation Commission
Ventura County Air Pollution Control District
South Coast Air Quality Management District
California Air Resources Board

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EXECUTIVE SUMMARY

Traffic congestion is one of Southern California's greatest challenges. Each day, Southern Californians waste more than 1.8 million vehicle hours in congested traffic. Traffic congestion also contributes to air pollution, causes wasteful consumption of energy, and results in tremendous loss in productivity. As local and state transportation agencies seek to identify solutions to Southern California's transportation problems, it is important to understand how commuters get to and from work, how they perceive their commute, and what factors influence their commute decisions.

The 2006 State of the Commute Report is based on a 2005 telephone survey of commuters in Southern California. The survey collects updated information on commuters' travel behavior and attitudes about traffic congestion, alternative travel options, employer provided transportation information and services, and high occupancy vehicle (HOV) lanes.

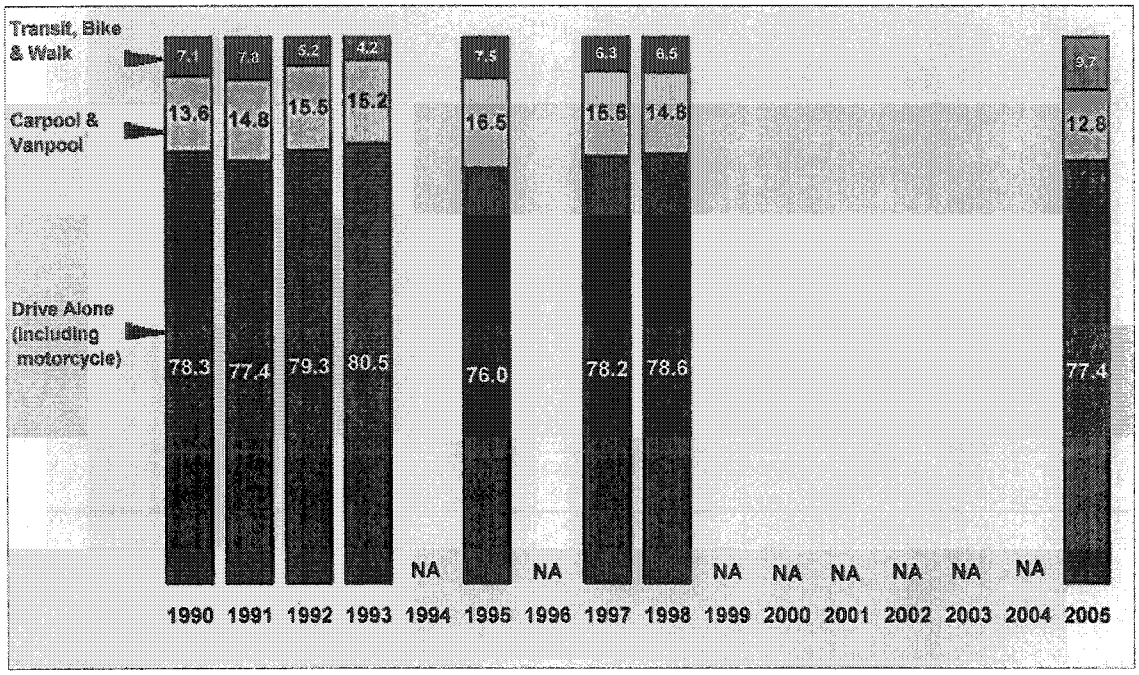
Historically the study has been a useful tool for transportation planners, transit operators, and public officials in their efforts to shape the region's transportation policies, infrastructure and legislation. The study also is used by businesses in the development of rideshare promotional activities. The following is a summary of the 2005 survey findings with comparisons to 1998 data.

TRAVEL BEHAVIOR AND TRENDS

PRIMARY TRAVEL MODE: The 2005 survey indicates that 77.2 percent of commuters drive alone, 0.2 percent ride a motorcycle, 12.2 percent carpool, 0.6 percent vanpool, 6.4 percent ride the bus or Metrorail, 1.7 percent take the commuter rail (Metrolink), 0.5 percent bicycle, and 0.6 percent walk to work on a regular basis.

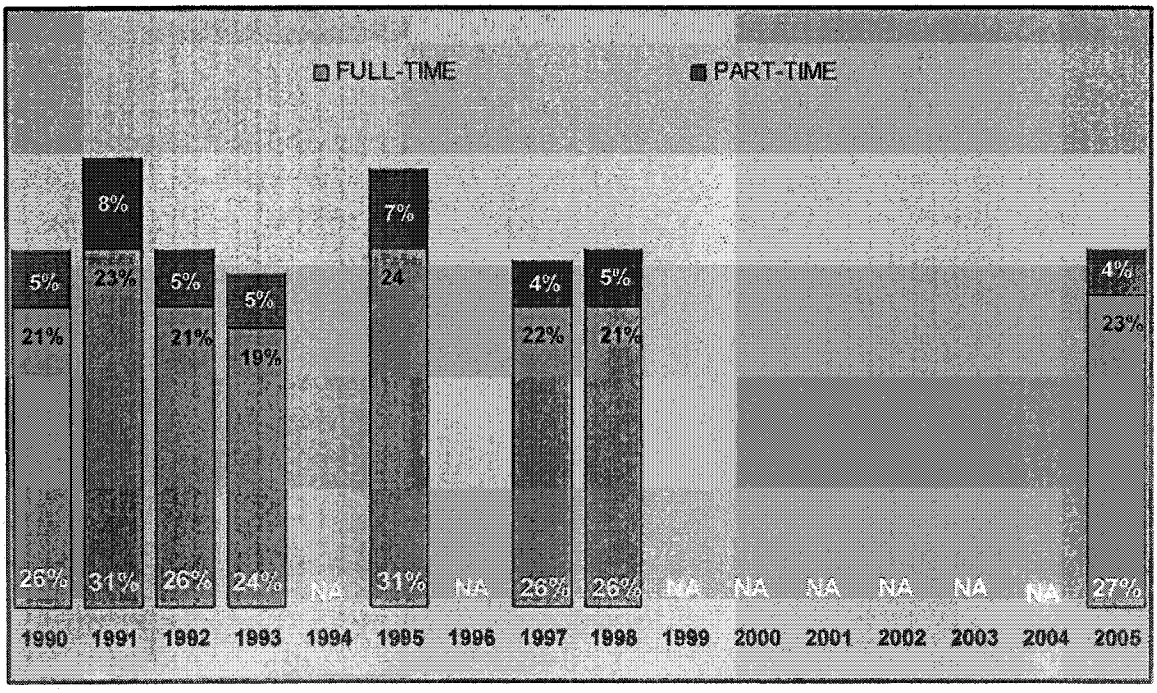
Compared to the 1998 findings, the share of public bus, Metrorail and commuter rail ridership have increased slightly and the percentage of carpoolers has decreased. The percentage of those that drive alone has not changed by a statistically significant amount.

FIGURE 1.1: PRIMARY TRAVEL MODE



ALTERNATIVE MODES: Twenty-seven percent of commuters use alternatives to driving alone either full-time (three or more days a week) (23%) or part-time (one or two days a week) (4%). The net change is a one percent increase in alternative modes, although the difference is not statistically significant.

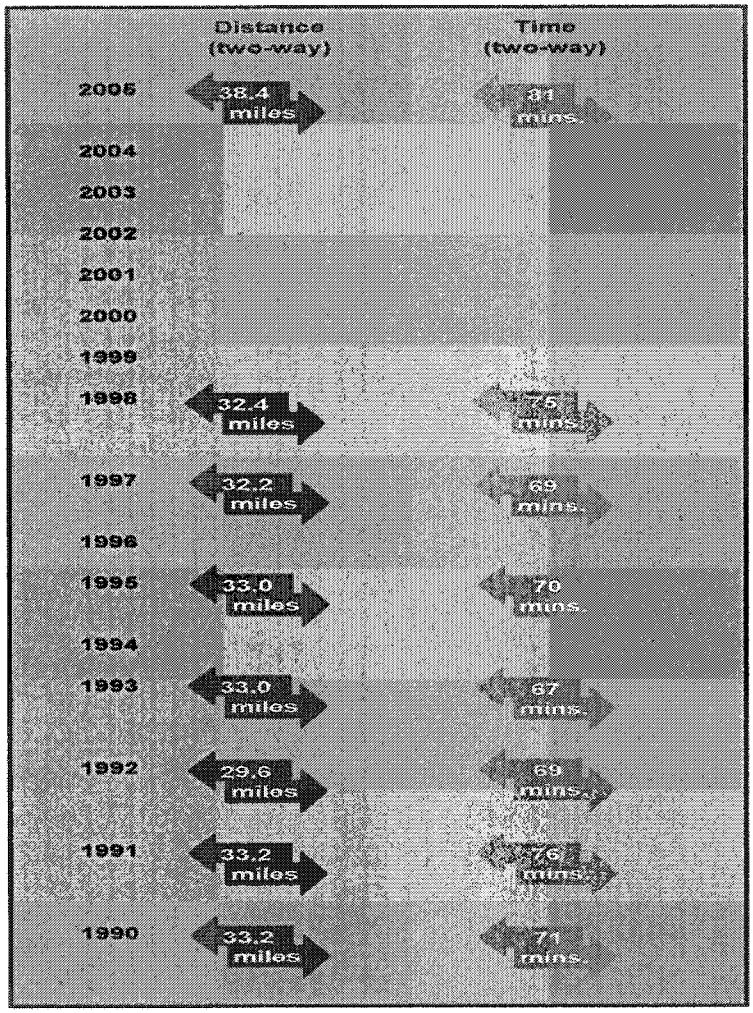
FIGURE 1.2: PERCENT OF COMMUTERS USING AN ALTERNATIVE MODE



TRAVEL DISTANCE: According to the 2005 survey, the average self-reported travel distance to work is 19.2 miles (one-way), which is up from 16.2 miles in 1998[1].

TRAVEL TIME: The average travel time to work has also increased from 34 minutes in 1998 to 38 minutes in 2005[2]. The average time home increased as well, currently 43 minutes compared to 41 minutes in 1998. Similar to 1998, the commute home takes longer than the commute to work.

FIGURE 1.3: AVERAGE TRAVEL DISTANCE AND TIME



[1] In 2005 three attitudinal questions were asked of respondents immediately prior to questions about trip time and distance. These questions rated current traffic flow on surface streets and freeways, how this has changed since the previous year, and commuters' overall satisfaction with their commute. In previous studies these questions followed the time and distance questions, and it is possible given the more negative responses to these questions, that they may have influenced respondents to provide higher estimates of trip times and distance.

[2] In 1998 and prior years, surveys with linked trips (trips with at least one stop between the origin and destination points) were excluded from time calculations. Linked trip behavior was not broken out in the 2005 survey and thus linked trips are included in trip-time calculations which will increase average trip time.

ARRIVAL AND DEPARTURE TIME: Forty-one percent of all commuters arrive at work before 7:30 in the morning. This is up three percent from 1998 with all of the increase coming from workers arriving before 6:30 AM. The mean arrival time has shifted from 8:35 AM in 1997 to 8:25 AM in 1998, and now 7:59 AM in 2005. The three percent increase in early arrivals is mirrored by a three percent increase in early departures between 3:00 and 4:59 PM.

CARPOOLS/VANPOOLS: In 2005 the percentage of carpoolers whose partners are co-workers increased significantly from 36 percent to 56 percent, and the percentage of carpoolers who share rides with family members decreased from 55 percent to 33 percent[3]. The actual number of carpoolers that are in carpools with coworkers increased from 1998 to 2005 from Carpoolers report having been in their carpool for an average of just over three years (38 months), and travel an average distance of 20.5 miles. The average vanpooler has been in their vanpool for four and a third years (52 months) and has an average travel distance of 47.7[4] miles.

Although the mode share for carpooling as collected in 2005[5] has declined by two percentage points from 14.8 percent in 1998 to 12.8 percent in 2005, the percentage of commuters carpooling or vanpooling with coworkers has actually increased from five percent to seven percent. This is because the percentage of carpoolers and vanpoolers that share rides with coworkers is 20 percentage points higher in 2005 than in 1998. This indicates that the number of carpools that are most likely to reduce the number of vehicles on the road has directionally increased from 1998 to 2005.

BUS RIDERS: Bus riders report they have been using bus service an average of about four and a half years (56 months). Bus riders' average commute to work is the shortest of automated modes at 9.5 miles.

NEED FOR VEHICLE DURING THE WEEKDAY: Sixty percent of all respondents report that they need their vehicle at work at least one day a week for either business or personal purposes. However, those that say they need their vehicle at work, say that they only need it at work an average of 2.7 days per week, unchanged from 1998. Forty percent of all commuters say they don't need their vehicle at work at all.

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[3] This shift away from family members and towards coworkers is quite likely the result of a change in survey language. In 1998 the survey asked "how many of these days do you carpool, including with family members?" In 2005 the question for primary mode was simply "how do you usually get to work?" If they indicated a secondary mode, they were asked how many days they commuted by each mode and for carpooling were asked "how many days did you carpool?" with no mention of family members. The significant shift in carpool composition indicates that the previous methodology may have overstated carpooling by including many carpools that were comprised of a driver and a child being dropped off at school on the way to work.

[4] Note: there were 17 vanpoolers in the total sample. With a sample size this small the average trip-distance is subject to high degree of variability.

[5] In 2005 the survey did not specifically identify sharing rides with family members as carpooling in the question as was done in 1998 and previous years.

DEMOGRAPHIC CHARACTERISTICS

GENDER: Men are slightly more likely than women to carpool or vanpool at 15 percent compared to 11 percent. Conversely, women are more likely to use public transit at 11 percent compared to 5 percent.

AGE: Younger commuters are much less likely to drive alone, and are more likely to both carpool and take the bus (or Metrorail). As age increases, the percentage driving alone increases and the percentage carpooling and taking the bus tends to decrease. The exception to this is the over 60 category which is more likely to carpool and less likely to drive alone than those in their 30's to 50's.

ETHNICITY: Hispanics and African Americans are more likely to carpool and ride the bus or Metrorail. Caucasians are more likely to drive alone and less likely to carpool or ride the bus or Metrorail.

INCOME: The proportion of commuters that drive alone increases with income, ranging from a low of 56 percent for those with an income under $20,000 to a high of 89 percent for those with incomes of $100,000 or more. Carpooling is inversely related to income starting at a high of 24 percent for those with an income below $20,000 and decreasing until it reaches five percent among those with an income of $100,000 or more. Riding the bus or Metrorail follows a similar pattern starting at a high of 16 percent for those in the lowest income category and decreasing to two percent for those in the highest income category.

NUMBER OF MOTORIZED VEHICLES: In 2005 commuters report an average of 2.5 vehicles per household which matches the number of vehicles reported in 1997[6]. This includes all types of motorized vehicles including cars, trucks, vans, and street-legal motorcycles owned or leased by members of the household.

AVAILABILITY OF VEHICLE TO COMMUTE TO WORK: Eighty-six percent of commuters say they always have a vehicle available to commute to work. An additional six percent say they sometimes have one available, and eight percent say they never have a vehicle available.

EMPLOYER-PROVIDED TRANSPORTATION INFORMATION AND SERVICES

TELEWORK: The percentage of commuters that have the opportunity to sometimes work at home instead of commuting to work has increased to 12.7 percent in 2005, up from 8.6 percent in 1998. Among those that have this opportunity 76 percent take advantage of it.

ALTERNATIVE WORK SCHEDULES: Twenty-two percent of commuters say their employer offers flex-time schedules such as 3-36, 4-40, or 9-80[7]. When

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[6] This question was not asked in 1998.

[7] Note: This year's question "Does your employer offer flex-time programs such as 3-36, 4-40 or 9-80?" specifically identifies 3-36, 4-40, and 9-80 schedules. The 1998 survey did not mention specific types of work schedules, and as a result also included generally flexible hours where

asked on an unaided basis[8] about which flexible work schedules their employers offer, 10 percent say their employer offers a 4/40 work week, seven percent say they offer a 9/80 work schedule, and six percent say they offer a 3-36 work schedule. Among commuters that have a 3-36, 4-40 or 9-80 flex-time schedule available to them, 26 percent are currently participating.

USE OF INFORMATION PRIOR TO COMMUTE TO AVOID CONGESTION

Almost half of all commuters (48%) seek out information prior to their commute to aid them in avoiding congestion. The most common sources are radio (69%) and TV (45%). This is followed at a much lower level by the Internet at 10 percent. The most likely course of action taken based on this information is changing routes (83%), or the time they leave (39%) At a much lower level, two percent change their commute mode.

CONTACT 1-800-COMMUTE: Seven percent of commuters indicate that they have contacted the 800-COMMUTE information number. This is an increase from 1999 when three percent said they had used the number.

VISIT COMMUTESMART.INFO WEBSITE: Three percent indicate that they have visited the COMMUTESMART.INFO website. This is the first time this question has been asked.

AVAILABILITY AND USE OF HOV LANES

Nearly two-thirds of commuters use a freeway to travel to work (63%). Fifty-eight percent of those who travel on a freeway report having HOV lanes available to them. Among the poolers who travel on freeways with HOV or carpool lanes, 72 percent use them. It should be noted that even if there is a carpool lane on the freeway, it is not always feasible or practical to use the lane if the freeway usage and HOV entrances and exits don't match up.

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workers can come and go based on their own judgment. Thus the results for this year are not directly comparable to 1998.

[8] Since the programs were mentioned in the introductory question in 2005, the follow-up question, "Which schedules do they offer?" was asked on an unaided basis. In 1998 the question was asked on an aided basis individually for each type of flex-schedule; e.g. "does you employer offer a 4/40 work schedule (four day work week working 10 hours a day)?" Aided response questions generally produce higher positive responses than unaided response questions.

ATTITUDES TOWARD TRAFFIC AND COMMUTE

PERCEPTIONS OF TRAFFIC: Survey respondents were asked to evaluate traffic during their commute, considering both surface streets and freeways[9]. Only 12 percent believe that the flow of traffic is always good, and 15 percent believe that it is more often good than not. Thirty-one percent say it is mixed, and the remaining 43 percent say that it is more often bad (19%), or always bad (24%).

The perception that traffic is getting worse is also strengthening with a majority of 54 percent saying that traffic on freeways and surface streets is worse than a year ago and only nine percent saying it is better. Thirty-seven percent said it is about the same.

SATISFACTION WITH THE COMMUTE: Commuters provided an average rating of satisfaction with their commute of 5.6 using a scale of one to nine where one is least satisfactory and nine is most satisfactory. This is the lowest overall satisfaction rating provided by commuters with 1990 being the previous low at 5.8. It is also down significantly from the 1998's 6.4 average rating.

IMPACT OF GAS PRICES: Commuters who drive alone were asked if they would consider alternative modes if the price of gas rose to $4.00, $4.50 or $5.00 per gallon. Overall 30 percent said they would consider changing at $4.00, 36 percent at $4.50, and 47 percent at $5.00 per gallon. Fifty-three percent said they would not consider alternatives at any price. The results were relatively consistent across counties and demographic variables with the exception of age where younger commuters were much more likely to consider alternative modes than older commuters.

RELOCATION: Commuters were asked how long they had lived at their current home. More than half (57%) had lived there for less than five years, and almost a quarter (23%) for two years or less. Those that had moved in the last five years were asked if they had moved closer or further from work. The split was very balanced with 31 percent saying they moved closer, 28 percent saying they moved further away, and 41 percent saying it stayed about the same. The primary reason cited for moving further away was better home value, mentioned by 84 percent of those moving further away. Although better home value was also cited by 37 percent of those moving closer, commute factors played a more important role with 43 percent mentioning reducing commute time, 17 percent reducing commuting costs, and 10 percent reducing stress from commuting.

COUNTY COMPARISONS: Comparing commuting behavior across counties, Los Angeles County has the lowest percentage of commuters that drive alone and the highest percentage of public transit use. Imperial and Orange Counties

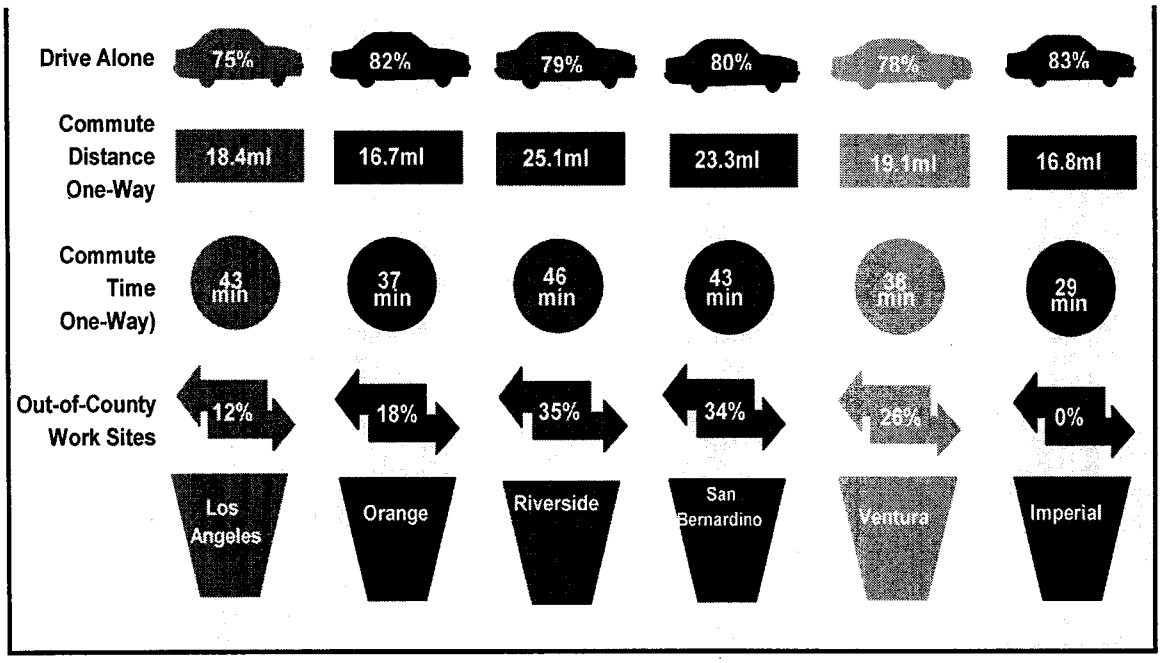
[9] In 1998 traffic rating questions were asked as two separate questions; one for surface streets and one for freeways. In 2005 they surface street and freeways were combined into one question. This occurred for both the absolute rating and for change compared to the previous year.

have the highest percentage of commuters that drive alone at 83 percent and 82 percent respectively and the lowest percentage of carpoolers at 11 percent and 10 percent respectively.

Riverside and San Bernardino County residents are the most likely to work outside their home county and also commute longer distances than residents of other counties. Their total commute time to and from work is also longer than other counties. They are the two most likely counties to report that their commute time is longer than it was a year ago and also most likely to say that traffic on surface streets and freeways is worse than it was a year ago.

Residents of Los Angeles and Riverside Counties are least satisfied with their commute overall at an average rating of 5.5. This is followed closely by San Bernardino County at 5.6. Orange, Ventura and Imperial Counties have higher average overall satisfaction ratings at 5.8, 5.9 and 6.8 respectively.

FIGURE 1.4: COUNTY COMPARISONS



AT HOME WORKERS: In 2005 5.2 percent of all workers reported that they are at home workers. At 67 percent, two-thirds of at-home workers are self-employed compared to only 14 percent for commuters that work 35 or more hours at a location outside the home. The proportion of at-home workers that is Caucasian (64%), is much higher than for regular commuters (35%), and the percentage for Hispanic at-home workers is lower (26%) than for general commuters (47%). The proportion of women is also higher for at-home workers at 56 percent than for regular commuters where it is 48 percent. Working at home is most common in Los Angeles County at 6.5 percent, and lowest in Ventura and Imperial Counties at 2.0 and 3.6 percent.

CONCLUSIONS

Results of the 2005 State of the Commute study support the following major conclusions:

- The percentage of drive alone commuters is similar in 2005 to previous studies in 1998, 1997 and 1996. The total percentage of commuters carpooling and vanpooling has decreased in 2005 from 1998, but the total number of commuters car and vanpooling with coworkers has moved directionally higher due a significant shift in the proportion of car and vanpoolers who indicate that they are sharing rides with coworkers. The percentage of commuters using public transit has also increased.

- Perceptions of congestion have continued to become more negative with an increased percentage saying that traffic conditions are always bad[10]. Similarly the percentage that says that traffic on surface streets and freeways is worse than a year ago has increased, exceeding 50 percent for the first time since 1991.

- Commute distance and commute time have both increased between 1998 and 2005[11].

- Awareness of most commuter transportation programs continued to decline from 1998 to 2005 following previous drops from 1997 to 1998 and 1995 to 1997.

- Peak commuting hours continue to expand with commuters arriving at work earlier in 2005 than in 1998, which in turn was earlier than 1997.

RECOMMENDATIONS

While an extensive freeway system and the general availability of free parking makes it easy and relatively inexpensive to drive alone, the survey data show that there are a significant percentage of commuters that do not need their vehicles at work during the day and have the potential to utilize alternative commuting modes to reduce commuting costs and stress. To encourage and support the use of these alternative modes it is recommended that transportation planners, operators, policy makers and employers in this region implement the following actions: focus marketing efforts on all alternative modes rather than several smaller efforts to promote individual mode options; expand promotion of sources of alternative commute mode information, particularly the website COMMUTESMART.INFO, utilize a two-pronged approach with a "push" strategy

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[10] In 1998 this question was asked separately for surface streets and freeways and in 2005 it was combined into one question for both streets and freeways. The percentage saying it is always bad in 1998 for surface streets was 11%, and 19% for freeways. In 2005 24% say it is always bad for surface streets and freeways, higher than either of the previous questions.

[11] See footnotes 1 and 2 on page 3 regarding changes in methodology that may have contributed to these changes.

at larger employers that will facilitate sharing commute information between coworkers commuting to the same location, and a "pull" strategy for the general public focusing on 1-800-COMMUTE and COMMUTESMART.INFO to leverage limited promotional funds.

- **Focus marketing efforts on all alternative modes rather than each mode individually.**

  Build on the promotional campaigns for bus and commuter rail by promoting a common source of information that will allow commuters to explore multiple commute options to determine which alternative mode may best meet their needs. It could even be expanded to provide real-time traffic information drawing drive-alone commuters to the site and exposing them to the benefits of alternative modes. This will leverage limited promotional funds and could achieve the critical mass needed to break through the high level of advertising clutter. It will also have broader appeal (because it is not limited to information on only one mode), which will make it more effective in getting commuters to further explore the alternatives.

  In addition, current promotional campaigns have a high degree of spillover with exposure to commuters who don't have access to the specific transit provider doing the advertising. By directing commuters to a single point of contact for information about alternative modes this spillover would become actionable promotion to all who hear or see it regardless of their location because it would easily connect to their local provider.

- **Expand promotion of sources of information about alternative mode commuting, particularly COMMUTESMART.INFO.**

  The two primary barriers to alternative mode commuting are the motivation to try something different, and the difficulty in getting the information needed to implement trial of an alternative mode. Promotional campaigns in the media are effective in highlighting the reasons for changing to an alternative mode on both a logical and emotional basis. They are weak, however, in providing the information needed to implement a change once motivated to try something new. 800-COMMUTE and COMMUTESMART.INFO can easily provide the detailed information, but without media promotion, awareness of their availability and usage will be limited. Thus media promotion must have the dual goals of motivating commuters to try an alternative mode, and also guiding them to 800-COMMUTE or COMMUTESMART.INFO to make it easy to implement the change.

  Currently, the low levels of usage indicate that awareness of this valuable information source is relatively unknown and underutilized relative to its potential. If COMMUTESMART.INFO could be promoted through highway signage and as a part of all alternative mode media communications, a lower

percentage of commuters would be deterred from exploring alternative options due to a perceived lack of information.

The Internet appears to be on the verge of replacing newspapers as the primary source for detailed information about current topics. Those under 30 are much more likely to use the Internet to gather information rather than other sources, and the percentage that use the Internet will continue to grow. Those under 30 are more likely than older age groups to use alternative modes, and also more likely to consider using alternative modes if gas prices increase. As such they should be the primary target for "pull" marketing strategies as they will are the most likely to respond positively to information about alternative modes.

- **Continue using a two-pronged approach using "push" strategies at larger employers where personal marketing efforts will show the greatest return, combined with a "pull" strategy for the general public that utilizes media (and freeway signage) to promote alternative modes.**

  Larger employers allow TDM marketing staff to leverage their limited time by reaching a large number of employees with one employer contact. Also, larger employers have a better chance of finding matches for ridesharing as a result of the sheer number of people coming to the same work location. Thus in these large employer groups (which are also covered by enabling legislation) will provide a good return on investment of TDM marketing staff time. Conversely with smaller employers, the cost per number of employees reached per contact is too low, and the reduced chances of good matches due to a smaller number of people coming to the same location reduces the interest level from employees.

  To effectively reach employees at smaller worksites that account for over half of all employees a "pull" strategy must be employed. This will require media communications (and possibly freeway signage) lead people to an effective website that makes it easy for them to find out how to use alternative modes once they are motivated to do so. It may also be beneficial to include drive-time information for drive alone commuters as well, since this will pull the target audience to a website that facilitates trial of alternative modes. This may be particularly effective when the drive-time indicates long delays that may lead them to consider alternatives.

  Any media placements should be targeted to younger commuters since they are the most likely to carpool or use public transit, and also are the most likely to consider alternative modes when the price of gas increases.

ABOUT THE STUDY

The core methodology for all 10 State of the Commute Surveys has been the same. However, in 2005 the survey length was significantly reduced from 16 minutes to 10 minutes in order to maintain a high level of reporting accuracy

while reducing the overall project budget. An outside marketing research firm drew a random sample of households within each county in the six county SCAG region. The sample is designed to be representative of all commuters residing in the SCAG region who are 18 years or older and work outside the home at least 35 hours per week[12]. Data is gathered by telephone using random digit dialing to avoid bias that would occur if only listed households were contacted. Surveys were collected primarily in September through December of 2005, which is similar to previous studies.

Data for the 2005 State of the Commute study was obtained through 2,844 completed surveys for commuters working outside the home and 156 at-home workers reported separately. The total sample size including both outside and at-home workers is 539 surveys per county for all counties except Imperial County where the sample size is 305. This provides a minimum sampling accuracy of $\pm$ 4.2 percent at a 95 percent confidence level for the higher population counties, and $\pm$ 5.6 percent for Imperial County. The accuracy for the region as a whole is $\pm$ 3.2 percent. A 3.2 percent sampling error at a 95 percent confidence level means that if a survey were conducted 100 times, one would be confident that 95 times out of 100 the characteristics of the sample would reflect the characteristics of the population within plus or minus 3.2 percent.

Once the data was collected, responses were weighted by the number of eligible respondents, in the household, age and ethnicity to match Census demographics for commuters. Additionally, data was weighted by the number of workers in each county for regional analysis to provide data that is representative of the total number of workers in the region.

Data obtained from the 2005 State of the Commute survey is compared with that of the previous surveys to uncover changes in behavior and attitudes. Information obtained for the 2005 State of the Commute survey includes travel modes, work trip time and distance, arrival and departure times, work schedules, full and part-time transportation alternatives, vehicle availability, parking costs, participation in selected employer transportation programs, employer size, park and ride lot usage and carpool characteristics. Demographic data gathered includes age, gender, ethnicity, home and work counties, and household income.

The 2005 survey also gathered information about various transportation issues, including:

- Freeway usage
- Use of HOV lanes
- Perceptions of traffic conditions and changes in those conditions over time

[12] This varies from the Census methodology which is conducted primarily by mail with phone and in-person follow-up and includes all commuters 16 years of age or older and only excludes workers if they work less than one hour per week rather than 35.

- Availability and participation in alternative work schedules and telework
- Commute satisfaction
- Commuter concerns
- Use of regional commuter assistance telephone number and website

In addition, the 2005 survey includes a brief survey of collecting demographic data of at-home workers in the region.

1. INTRODUCTION

1.1 DESCRIPTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The Southern California Association of Governments (SCAG) is a Council of Governments serving more than 18 million people in a region covering more than 38,000 square miles. There are six counties – Los Angeles, Orange, Riverside, San Bernardino, Ventura and Imperial- containing 187 cities within the SCAG region. SCAG is the officially designated regional Metropolitan Planning Organization (MPO) responsible for preparing regional policies and action plans that address issues that cross city and county boundaries such as transportation, air quality, housing, growth, hazardous waste and water quality.

In 1998, when the previous study was conducted, SCAG promoted ridesharing across the six-county region through Southern California Rideshare, a service of SCAG's Information Services Department. In July of 2003 the funding and implementation of rideshare programs were transferred to the individual County Transportation Commissions.

1.2 PURPOSE OF THE STATE OF THE COMMUTE

The purpose of the State of the Commute study is to examine the commute behavior and attitudes of commuters living in Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Information is gathered on commuters' changing behavior and attitudes toward their current travel modes and routes, congestion, HOV lanes, employer programs and daily commute activity.

Data gathered through this tenth survey is compared with the results of previous surveys to identify trends and determine whether significant differences have occurred over time. These surveys enable SCAG to stay abreast of the latest regional commuting trends, and report these finding to local organizations and agencies with a vested interest in transportation issues. By keeping a pulse on regional commuting behavior, SCAG and others are better able to meet the changing needs of the commuting public by improving marketing strategies and adapting services accordingly.

1.3 UTILIZATION OF FINDINGS

Findings from the 2005 survey are compared with the results from the previous surveys to determine whether travel behavior and attitudes have changed over the last 15 years.

- Results from the survey are used by County Transportation Commissions to improve marketing strategies by identifying key market segments for the evolving mix of services. Attitudinal information is beneficial to the development and promotion of new

services. Furthermore, updated information on commute satisfaction, commute concerns, and the impact of commute-related issues on home and work location choices, helps to better position ridesharing to the general public.

- With a better understanding of differences in commuting behavior and attitudes across gender, age, income, ethnicity, employer site size and county, Transportation Demand Management (TDM) programs can more effectively promote ridesharing.

- The identification of trends helps develop strategic planning and marketing goals.

- Regional commute trends are tracked as this data is updated and reported to the media and other organizations, and individuals with a vested interest in regional transportation.

- Monitoring the commuting activity of employees at both regulated and unregulated work sites assists legislators, regulators and others in gaining a better understanding of mandatory vs. voluntary ridesharing efforts.

- An investigation of commuting behavior and attitudes may assist policy makers and those with a vested interest in transportation issues in developing contingency plans in the wake of a regional disaster.

1.4 CHANGES IN THE REGULATORY ENVIRONMENT

There have been significant changes in the regulatory environment that occurred during the 1990's. Although these changes were put into law prior to the conduct of the 1998 study, the impact of these regulatory changes may not have been completely reflected in employer behavior until several years after their passage. These regulatory changes are detailed below.

The key pieces of regulation include: California Senate Bills 432 and 836, the South Coast Air Quality Management District's (SCAQMD) Rule 2202 (formerly Rule 1501.1, Rule 1501 and Regulation XV) and the Ventura County Air Pollution Control District's (VCAPCD) Employee Commute Options (Rule 211).

Implemented in the late 1980's Regulation XV and Rule 210 required particular employers (based on the number of employees at the work site) to develop employee trip reduction plans to decrease the number of single-occupant vehicles arriving at the work site during the morning peak hours. In December 1995, the state Legislature prohibited mandatory employer-based trip reduction rules except where required by federal law

and mandatory trip reduction plans. At the same time, Congress amended the Clean Air Act to permit equivalent emission reduction strategies in lieu of the mandatory trip reduction rules. In response to both developments, the SCAQMD rescinded Rules 1501 and 1501.1 and replaced them with Rule 2202. Instead of mandating employers to implement an employee trip reduction program, the new rule provided a menu of emission and trip reduction strategies/mitigation measures from which to choose. However, in September 1996, Senate Bill 836 (Lewis) was enacted which temporarily raised the threshold of Rule 2202 from worksites with 100 employees to 250 employees starting January 1, 1997. Later, Senate Bill 432 was signed into law in June 1998 permanently removing regulatory requirements at worksites with 100 to 249 employees.

1.5 THE SIGNIFICANCE OF RIDESHARING IN SOUTHERN CALIFORNIA

The role of carpooling in Southern California is significant. Given the dispersed pattern of jobs and housing within the region, the length of the commute that many commuters daily endure, and their somewhat limited travel options, carpooling remains the most accessible alternative commute option available to regional commuters.

Carpooling is the number one alternative to driving alone in the Los Angeles area. Carpooling moves over three times more workers than transit, according to the 2000 Census (1,035,703 vs. 316,291).

Carpooling is the least expensive way to cut traffic and smog, according to an Apogee Research study for the National Association of Regional Councils. It costs significantly less to cut the number of cars on the road by forming carpools than by bus or rail.

Regionally we must sustain the existing carpool market share. Just a one percent drop in the carpooling rate translates into more than 40,000 additional vehicles on our freeways and surface streets daily, which in turn, results in an annual increase of 302 million vehicle miles of travel.

1.6 OUTLINE OF THE REPORT

This report consists of an executive summary, seven chapters, and three appendices.

The Executive Summary presents major findings, conclusion, and recommendations of the 2005 State of the Commute study.

Chapter 1 describes the purpose of the State of the Commute study and how the findings are utilized. A brief overview of the changes in the regulatory environment is also provided.

Chapter 2 details commuter behavior. Specifically, travel mode, travel distance, travel time, arrival and departure times, parking costs, freeway

and HOV lane usage, the need for an automobile during the work day, park and ride lot usage, and carpool and transit characteristics are addressed.

Chapter 3 describes the demographic characteristics of the respondents. This chapter also highlights commute behavior by gender, age, income, ethnicity, and employer site size.

Chapter 4 focuses on awareness and participation in employer transportation programs, including telework, alternative work schedules, and usage of 1-800-COMMUTE and the COMMUTESMART.INFO website.

Chapter 5 describes commuter attitudes and overall satisfaction with the commute in addition to commute stress, commute concerns, the impact of gas prices, and relocation factors.

Chapter 6 provides a summary of the critical findings by county.

Chapter 7 documents major demographic characteristics of workers whose primary workplace is home.

Appendices of the document follow Chapter 7. A copy of the survey questionnaire is presented in Appendix A. Project documentation including the sampling methodology can be found in Appendix B.

2. TRAVEL BEHAVIOR

2.1 INTRODUCTION

Tracking travel characteristics is an essential component of analyzing regional travel behavior. Travel characteristics, such as primary transportation mode, commute distance and times, work place arrival and departure time, parking, freeway and alternate route usage, the need for a car during the work day, park and ride lot usage, and carpool and transit rider characteristics are all necessary ingredients in adequately portraying existing conditions. This chapter primarily reports on travel characteristics of all survey respondents. Further analysis of travel behavior by demographic characteristics is the focus of Chapter 3.

2.2 TRAVEL MODE

A travel characteristic of particular interest is the primary transportation mode which commuters use to get to and from work. A primary transportation mode is defined as the travel mode by which a commuter travels to work for more than half of their workdays in a typical week. Primary mode, regular mode and usual mode are used interchangeably throughout the report. Data on the primary transportation mode used from the 2005 survey is compared with those from the previous surveys in Table 2.1[13].

TABLE 2.1

PRIMARY TRAVEL MODE

	1991		1992		1993		1995		1997		1998		2005	
Travel Mode	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Drive Alone	1,921	77.2%	2,042	78.8%	2,107	80.3%	2,219	75.9%	2,262	77.3%	2,296	78.5%	2,195	77.2%
Motorcycle	4	0.2	13	0.5	1	0.3	4	0.1	28	0.9	3	0.1	7	0.2
Carpool	341	13.7	374	14.4	372	14.2	455	15.6	419	14.3	405	13.9	348	12.2
Vanpool	29	1.1	29	1.1	28	1	25	0.9	34	1.2	27	0.9	17	0.6
Public Bus/Metrorail	111	4.5	69	2.7	55	2.1	138	4.7	103	3.5	121	4.1	182	6.4
Private Bus	3	0.1	13	0.5	0	0	4	0.1	0	0	4	0.1	13	0.5
Commuter Rail	0	0	4	0.2	4	0.2	21	0.7	17	0.6	21	0.7	48	1.7
Bicycle	27	1.1	13	0.5	17	0.6	14	0.5	14	0.5	15	0.5	16	0.5
Walk or jog	51	2.1	34	1.3	35	1.3	44	1.5	49	1.7	32	1.1	18	0.6
Total:	2,487	100%	2,591	100%	2,625	100%	2,925	100%	2,925	100%	2,925	100%	2,844	100%

[13] Private Bus and Buspool are used interchangeably throughout the report for privately operated buses capable of carrying more than 18 passengers that are used for vanpooling.

As the following two charts indicate, the percentage of drive along commuters has dropped slightly, and those employing an alternative mode (anything other than driving alone), has increased slightly.

FIGURE 2.1: PERCENT OF COMMUTERS DRIVING ALONE

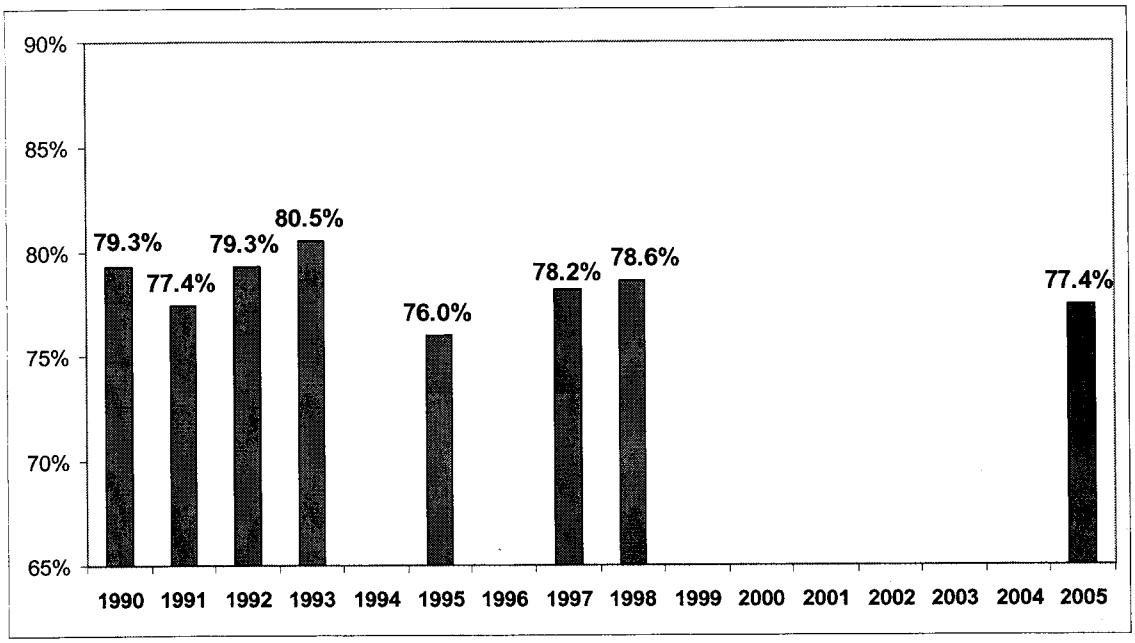
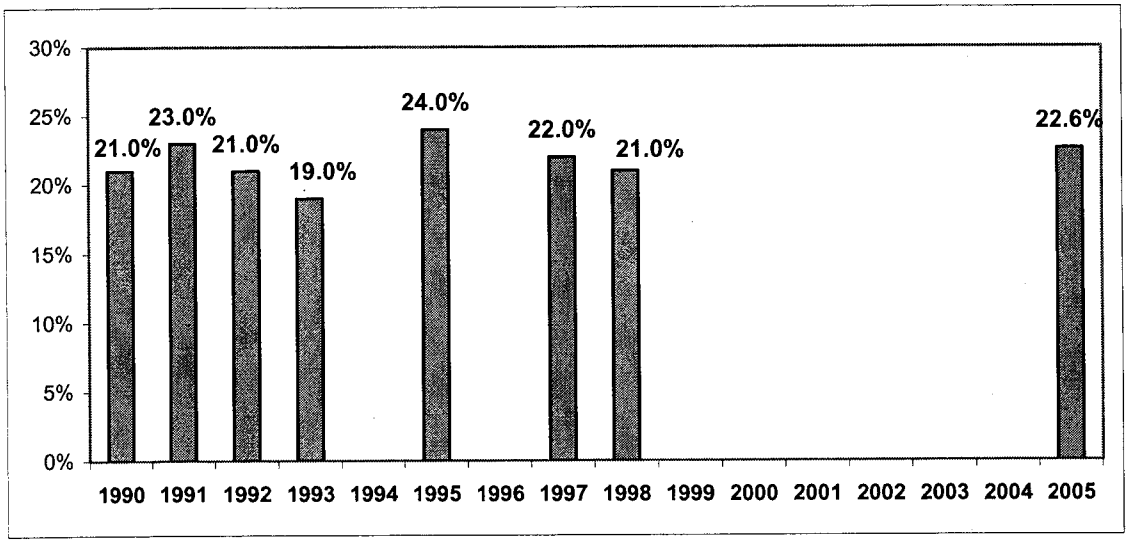


FIGURE 2.2: PERCENT USING AN ALTERNATIVE MODE



As the total counts for the surveys show, 2,487 individuals respondents in 1991; 2,591 in 1992; 2,625 in 1993, 2,925 in 1995, 1997, and 1998 respectively, and 2,844 in 2005 completed the survey. The total sample includes over-sampling of all counties except Los Angeles, meaning that the ratio of surveys to the population of these counties is higher than in Los Angeles County. Since levels

of statistical accuracy are based on random samples (which would be in proportion to the population of each county for the determination of regional sampling accuracy) the effective sample size for all counties other than Los Angeles is reduced so that the ratio of surveys to population is consistent across all counties. This reduces the actual sample size of 2,844 to an effective sample size of 897 for determination of accuracy at the regional level. A sample size of 897 provides sampling error of $\pm$ 3.3 percent at a 95 percent confidence level. Unless otherwise noted, almost all statistics reported in this chapter have a similar sampling error of about $\pm$ 3.0 percent since these statistics are based on an effective random sample of 897 commuters designed to be representative of the regional commuter population.

A historical look at primary travel mode over the last seven surveys covering over a decade shows a relatively consistent occurrence in the drive alone rate (75.9 – 80.3%). The difference in the drive alone rate in 2005 compared to previous years is not statistically significant with the exception of 1993. However, the carpool rate has dropped steadily since 1995, and at 12.2 percent is at the lowest level since the survey was started in 1991. It should be noted that although the percentage of workers carpooling has declined, the total number of workers in the region have increased by approximately 13 percent since the 1998 study. Hence the total number of carpools formed remains almost unchanged between 1998 and 2005.

Across all survey respondents, almost three-quarters (73%) always drive alone to work (including always drive alone commuters who also telecommute part-time or on a compressed work week schedule). This is essentially the same as 1998 and 1997 (74%), but is higher than the 69 percent reported in 1995. Twenty-seven percent use some form of alternate transportation either on a part or full-time basis. This is comprised of commuters who use alternative modes as their primary mode, (23%), or as a supplemental or part-time mode (4%). These figures are virtually the same as the previous two studies where the results for drive alone were 26 percent both years, 21 percent and 22 percent for primary alternate mode respectively for 1999 and 1998, and 5 percent and 4 percent for a supplemental or part-time mode.

In a separate question, 10 percent of 2005 always drive-alone commuters indicated that they had regularly carpooled, vanpooled or used transit within the past year. This is lower than 1998 (14%), 1997 (13%), and 1995 (15%), but matches 1993's 10 percent.

When former ridesharers were asked why they quit their arrangement, 32 percent cited changes in work schedules up from 21 percent in 1999. At a lower level 10 percent each mentioned that they changed jobs or worksites, or got a car or had one fixed. The only other factors exceeding five percent were other ridesharers quitting (9%), becoming unreliable (9%), and taking too much time (6%).

2.3. COMMUTING DISTANCE

According to the 2005 survey, the average self reported distance to work is 19.2 miles and the median is 15.0 miles. This is up significantly from previous studies including 1998 with an average of 16.1 and a median of 12.0 (a median is the distance or other characteristic being measured for which exactly half the values are larger, and half are smaller)[14]. Trip distances vary from 0.1 miles to 150 miles. The average commute distance is significantly higher than that based on the 1990 Census data partly due to the difference in definition of workers between the State of the Commute Survey and 2000 Census. The state of the Commute Survey includes only commuters who are 18 years or older and work outside their home 35 hours or more in a week. Part-time workers and those 16-17 years old are not included in this study.

Table 2.2 shows the frequency distribution of one-way commute distances from 1991 through 2005.

TABLE 2.2

ONE-WAY COMMUTING DISTANCE

	1991		1992		1993		1995		1997		1998		2005	
Distance	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Under 5 miles	515	23%	544	22%	620	24%	578	20%	577	20%	620	21.0%	364	13.5%
5 to 9 miles	405	18	579	23	490	19	570	20	580	20	520	18	475	17.7
10 to 14 miles	348	16	425	17	389	15	499	17	498	17	490	17	401	14.9
15 to 19 miles	245	11	239	10	241	10	349	12	295	10	343	12	311	11.6
20 to 29 miles	190	9	212	3	195	8	267	9	288	10	284	10	347	9.2
30 to 34 miles	123	6	107	4	155	6	144	5	169	6	156	5	192	7.2
35 to 39 miles	111	5	117	5	163	6	148	5	115	4	135	5	188	7.0
35 to 39 miles	56	3	58	2	79	3	77	3	116	4	71	3	129	4.8
40 to 44 miles	46	2	63	3	47	2	54	2	109	4	89	3	124	4.6
45+ miles	156	7	125	5	185	7	204	7	160	5	187	6	257	9.6
Total:	**2,195**	**100%**	**2,469**	**100%**	**2,564**	**100%**	**2,891**	**100%**	**2,907**	**100%**	**2,895**	**100%**	**2,688**	**100%**

[14] In 2005 three attitudinal questions were asked of respondents immediately prior to questions about trip time and distance. These questions rated current traffic flow on surface streets and freeways, how this has changed since the previous year, and commuters' overall satisfaction with their commute. In previous studies these questions followed the time and distance questions, and it is possible given the more negative responses to these questions, that they may have influenced respondents to provide higher estimates of trip times and distance.

2.4 COMMUTE TIME TO AND FROM WORK

In 2005 it takes survey respondents an average of 42 minutes to get to work with a median of 30 minutes[15]. The mean time for the trip home is 47 minutes with a median of 40 minutes. As would be expected with the increases in commuting distance both trip to work and back home are longer in 2005 than they were in 1998.

A conservative approach was taken beginning in 1990 for estimating trip time. Respondents who reported an average speed of more than 75 miles per hour or traveling more than three hours to get to work or more than four hours to get home from work were not included in the calculation. This same approach was used in subsequent years.

Because of the high level of interest in travel time, two sets of questions were asked regarding travel time. In the first set of questions, commuters were asked what time they left home for work, what time they arrived at work, what time they left work for home, and what time they arrive at home the day of the survey. The commuting times reported in the first paragraph of this section are based on this set of questions.

In the second set of questions, commuters were asked how many minutes it takes them to travel to work and return home, implying usual activity. Commuters report that it usually takes the 38 minutes to get to work, with a median of 30 minutes, and 43 minutes to return home, with a median of 35 minutes. The self-reported times have traditionally been shorter than those calculated from departure and arrival times and this is also the case in 2005. As with the calculated times, the self-reported times are longer in 2005 than in 1998.

Table 2.3 and Table 2.4 show the frequency distributions of commute time to and from work respectively from 1991 to 2005.

[15] In 1998 and prior years, surveys with linked trips were excluded from time calculations. Linked trip behavior was not explored in the 2005 survey and thus linked trips are included in trip-time calculations which will increase average trip times.

TABLE 2.3

COMMUTING TIME FOR TRIP TO WORK

	1991		1992		1993		1995		1997		1998		2005	
Trip time	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
0 to 14 min.	308	16%	351	17%	445	22%	471	23%	319	15%	430	19%	231	8%
15 to 29 min.	555	29	667	33	583	30	668	32	781	36	707	31	682	24
30 to 44 min.	465	25	442	22	479	24	437	21	564	26	471	21	735	26
45 to 59 min.	177	9	230	11	178	9	230	11	167	8	315	14	361	13
1 hr. to 1:14	194	10	216	10	164	8	107	5	181	8	196	9	451	16
1:15 to 1:29	60	3	50	2	49	3	62	3	45	2	38	2	89	3
1:30 to 1:44	50	3	56	3	54	3	60	3	58	3	46	2	131	5
1:45 to 1:59	16	1	17	1	8	0	18	1	15	1	11	1	50	2
2 hours or more	71	4	21	1	28	1	28	1	26	1	39	2	86	3
Total:	**1,896**	**100%**	**2,050**	**100%**	**1,988**	**100%**	**2,083**	**100%**	**2,156**	**100%**	**2,254**	**100%**	**2,816**	**100%**

TABLE 2.4

COMMUTING TIME FOR TRIP HOME

	1991		1992		1993		1995		1997		1998		2005	
Trip time	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
0 to 14 min.	237	14%	221	12%	266	16%	355	19%	245	12%	331	15%	212	8%
15 to 29 min.	428	25	536	30	454	28	531	28	598	30	609	28	487	17
30 to 44 min.	446	26	159	26	419	25	415	22	510	25	427	20	750	27
45 to 59 min.	189	11	193	11	146	9	287	15	220	11	351	16	350	12
1 hr. to 1:14	181	10	197	11	194	12	109	6	247	12	206	9	507	18
1:15 to 1:29	62	3	53	3	52	3	56	3	66	3	50	2	148	5
1:30 to 1:44	81	5	68	4	50	3	83	4	57	3	102	5	188	7
1:45 to 1:59	21	1	11	1	9	1	21	1	23	1	32	2	44	2
2 hours or more	86	5	40	2	47	3	46	2	53	3	70	3	131	5
Total:	**1,731**	**100%**	**1,778**	**100%**	**1,637**	**100%**	**1,902**	**100%**	**2,019**	**100%**	**2,177**	**100%**	**2,817**	**100%**

2.5 WORK PLACE ARRIVAL AND DEPARTURE TIMES

Arrival and departure time results from the 2005 survey are compared with previous survey results in Tables 2.5 and 2.6. Arrival time before 6:00 AM includes all those who report to work after midnight, and the departure time of before 3:00 PM include all that may start work late evening or very early morning and leave to go home any time between midnight and 2:59 PM.

TABLE 2.5

ARRIVAL TIME AT WORK

	1991		1992		1993		1995		1997		1998		2005	
Time (A.M.)	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Before 6:00	176	8%	156	6%	263	10%	260	9%	246	9%	290	10%	311	11%
6:00 to 6:29	122	5	137	6	118	5	135	5	154	5	172	6	234	8
6:30 to 6:59	213	9	265	11	248	10	271	9	290	10	297	10	259	9
7:00 to 7:29	277	12	311	12	269	11	382	13	389	13	350	12	362	13
7:30 to 7:59	383	16	385	16	372	15	408	14	465	16	436	15	461	16
8:00 to 8:29	374	16	427	17	363	14	457	16	407	14	472	16	443	16
8:30 to 8:59	220	9	282	11	253	10	265	9	301	10	219	8	190	7
9:00 to 9:29	168	7	158	6	211	8	178	6	173	9	192	7	184	7
9:30 to 10:00	112	5	128	5	107	4	100	3	65	2	87	3	133	5
After 10:00	317	13	250	10	346	13	462	16	434	15	368	13	240	9
Total:	**2,362**	**100%**	**2,499**	**100%**	**2,550**	**100%**	**2,917**	**100%**	**2,925**	**100%**	**2,880**	**100%**	**2,817**	**100%**

The share of commuters arriving at work before 6:30 AM has increased in 2005 (19%) when compared with 1998 (16%), and the percentage arriving after 10:00 AM has also decreased from 13 percent to nine percent. The reduction in commuters arriving after 10:00 AM reflects a continuing trend dropping from a high of 16 percent in 1995 to 15 percent in 1997, 13 percent in 1998, and nine percent in 2005.

The mean arrival time in 2005 is 7:59 AM and the median is 7:45 AM. The mean arrival time is much earlier than in 1998 when it was 8:25 AM, but the median is almost the same as 1998's 7:50 AM. The average time in 1998 was also earlier than it was in 1997 when it was 8:35 AM indicating a continuing trend towards earlier arrivals, most likely driven by an attempt to avoid increasing congestion during the morning peak.

TABLE 2.6

DEPARTURE FROM WORK

	1991		1992		1993		1995		1997		1998		2005	
Time (P.M.)	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Before 3:00	369	16%	356	15%	432	17%	464	9%	459	9%	510	17%	354	13%
3:00 to 3:29	174	7	171	7	165	7	198	5	165	5	183	6	204	7
3:30 to 3:59	212	9	157	6	174	7	166	9	241	10	213	7	237	8
4:00 to 4:29	275	12	282	11	278	11	341	13	374	13	360	12	322	11
4:30 to 4:59	285	12	351	14	319	13	311	14	323	16	268	9	304	11
5:00 to 5:29	449	19	4449	18	441	18	450	16	515	14	497	17	536	19
5:30 to 5:59	182	8	203	8	212	8	265	9	182	10	248	9	262	9
6:00 to 6:29	171	7	193	8	212	8	213	6	229	9	239	8	263	9
6:30 to 7:00	106	5	157	6	131	5	114	3	120	2	165	6	165	6
After 7:00	120	5	173	7	150	6	294	16	317	15	241	8	170	6
Total:	**2,343**	**100%**	**2,492**	**100%**	**2,514**	**100%**	**2,917**	**100%**	**2,925**	**100%**	**2,925**	**100%**	**2,817**	**100%**

The share of commuters departing before 3:00 PM has increased from 10 percent in 1998 to 13 percent in 2005, most likely reflecting the earlier arrival times. The percentage departing between 3:30 PM and 5:00 PM has dropped slightly from 37 percent to 30 percent, but departures between 5:00 PM and 7:00 PM have increased from 34 percent to 43 percent.

2.6 PARKING

Ninety-five percent of area commuters receive free parking at their work site. This is consistent with findings from previous surveys which range from a low of 92 percent in 1993 to a high of 94 percent in 1991, 1997 and 1998.

Among the five percent of employees that do pay for parking, their cost (after any employer contributions) is spread relatively evenly between $1 to $39 (31%), $40 to $79 (30%), and $80 or more (39%). Parking costs have increased from 1998 with the under $40 category decreasing from 55 percent to 31 percent, and the over $80 category increasing from 17 percent to 39 percent. The middle category of $40 to $79 held relatively even increasing only from 28 percent to 30 percent. The details of parking costs since 1991 are presented in Table 2.7 (note: dollar amounts are not adjusted for inflation).

TABLE 2.7

EMPLOYEE PARKING FEES

Monthly Fee Paid by Employee	1991		1992		1993		1995		1997		1998		2005	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
$1 to $39	75	61%	74	44%	62	34%	82	39%	89	51%	85	55%	45	31%
$40 to $79	50	29	71	37	97	47	42	24	43	27.9	43	28	44	30
$80 or more	17	14	45	27	54	29	29	14	44	25	26	17	57	39
Total:	**123**	**100%**	**169**	**100%**	**187**	**100%**	**208**	**100%**	**175**	**100%**	**154**	**100%**	**152**	**100%**

Reflecting the changes in the parking fee categories, the average parking fee in 2005 was $85, up from $50 in 1998 and higher than all previous years including 1997 ($63), 1995 ($70), 1993 ($70), and 1992 ($66). Note that the size of samples upon which the parking fees are estimated is small (ranging from 123 to 208 respondents) resulting in a relatively high sampling error.

2.7 FREEWAY BEHAVIOR

Sixty-three percent of all participants travel on a freeway as part of their commute. The percentage was 61 percent in 1998, 55 percent in 1997, 60 percent in 1995, 55 percent in 1993, 56 percent in 1992 and 53 percent in 1991.

2.8 AVAILABILITY AND USE OF HOV LANES

Fifty-eight percent of freeway travelers indicate that there is an HOV or carpool lane on the freeway or freeways they use to commute to work. Among the poolers eligible to use these lanes and who travel on a freeway on their commute to work, 72 percent report that they use the HOV lane.

2.9 AVAILABILITY OF VEHICLE FOR GETTING TO WORK

Eighty-seven percent of all respondents report always having a vehicle available for getting to work. Six percent say that a vehicle is sometimes available, and seven percent say that they never have a vehicle available. The percentage of commuters that always have a vehicle available has decreased by two percent from 1998 to 2005, and over the same time period the percentage that never have a vehicle has increased by two percent.

According to the 2005 survey, the average number of motorized vehicles (including both owned and leased automobiles, trucks, vans, and street-licensed motorcycles) is 2.5 with a median of 2.0. The mean and median are unchanged from 1997[16]. Every county averages over 2.5 vehicles with the exception of Los Angeles County where the average is 2.4, probably due to the greater availability of public transit options.

2.10 NEED FOR VEHICLE DURING THE WORK DAY

The average number of days that commuters need their car at work for personal or business reasons is 2.7. This is unchanged from 1998. Forty percent say that they don't need their car at work at all, and at the other end of the spectrum 44 percent also say they need their vehicle at work five or more days per week. The percentage saying they don't need their vehicle at all has increased slightly from 36 percent in 1998, while the percent that say they need their vehicle five or more days a week has stayed essentially the same, increasing only one percent from 43 percent.

2.11 PARK AND RIDE LOT USAGE

Three percent of the respondents reported using a park and ride lot during the past week in their commute to work. This is unchanged from 1998 and similar to previous years with the exception of 1993 which was six percent.

2.12 CARPOOL AND VANPOOL CHARACTERISTICS[17]

Persons who report that they commute in carpools or vanpools one or more days per week were asked about their relationship with the people sharing rides with them. Well over half of carpoolers indicate that they share rides with coworkers

[16] This question was not asked in the 1998 survey.

[17] Carpool data is based on 377 respondents and vanpool data on 26 respondents, thus the carpool data is accurate to $\pm$ 5% at a 95% confidence level and the vanpool data is directional only with no valid level of accuracy.

(56%)[18]. A third (33%) also share rides with household members. At a much lower level, non-household family members account for six percent, friends, acquaintances and neighbors for five percent, and one percent for someone from a RideGuide or matchlist (see Table 2.8).

The percentage of carpoolers sharing their rides with coworkers is much higher in 2005 (56%) than in 1998 (36%). It is also higher than 1997 (37%), 1995 (45%), 1993 (47%), 1992 (42%) and 1991 (37%). The proportion of carpoolers sharing rides with coworkers is higher than the average of 56 percent at larger worksites with 67 percent at worksites with 250 or more employees, and 72 percent at sites with 500 or more employees.

TABLE 2.8[19]

RELATIONSHIP TO PERSONS WITHIN CARPOOL OR VANPOOL.

	1991		1992		1993		1995		1997		1998		2005	
Relationship	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Household Members	222	43%	211	42%	198	39%	319	49%	318	55%	304	55%	143	33%
Non-household Relatives	33	6	16	3	13	3	17	3	42	7	39	7	24	6
Co-Workers (Non-Matchlis	165	32	181	36	202	40	265	41	187	32	194	35	273	59
Co-Workers (Matchlist)	25	5	28	6	35	7	27	4	29	5	4	1	24	5
Friends, Neighbors (Non-Matchlis	51	10	58	12	66	13	50	8	41	7	68	12	8	5
Friends, Neighbors (Matchlist)	20	4	20	4	17	3	4	1	9	2	5	1	0	0
Someone From Matchlist	2	0	2	0	1	0	8	1	2	0	2	0	5	1
Total:	**397**	**100%**	**516**	**103%***	**532**	**105%***	**690**	**107%***	**582**	**108%***	**553**	**111%**	**448**	**104%**

*Total exceeds 100% because respondents were permitted more than one response.

[18] This is a multiple response question so totals may exceed 100% as respondents can share rides with multiple categories of riders.

[19] The frequencies presented in tables are 'weighted' frequencies reflecting the number of respondents adjusted for county size, number of workers in household, ethnicity and income. As such they may vary from the true survey count for these categories.

Carpooling with family members has dropped at the same time as pooling with coworkers has increased, going from 55 percent in 1998 to 33 percent in 2005[20]. Carpooling with family members was also 55 percent in 1997, and 49 percent in 1995.

Although the mode share for carpooling as collected in 2005 (not specifically identifying sharing rides with family members as carpooling in the question), has declined by two percentage points from 14.8 percent in 1998 to 12.8 percent in 2005, the percentage of commuters carpooling or vanpooling with coworkers has actually increased from five percent to seven percent. This is because the percentage of car and vanpoolers that share rides with coworkers is 20 percentage points higher in 2005 than in 1998. This indicates that the number of carpools that are most likely to reduce the number of vehicles on the road has directionally increased from 1998 to 2005.

The distinction between coworker carpools, and family and friend carpools is important to note given the differences in commute characteristics between these two groups. These characteristics are highlighted in Table 2.9.

Although the sample size is too small to identify statistically significant differences for van and buspoolers, it is worth noting that the percentage of van and buspoolers who share rides with coworkers is much higher (81%) than for carpoolers (59%). The percentage for friends, acquaintances and neighbors is also higher (24%) than for carpoolers (5%), and the percentage with family members in or outside of the household is much lower (7%) than for carpoolers (39%).

[20] The survey question format was changed in 2005 to reduce survey length. This may have impacted how respondents answer the question about carpooling, particularly as it relates to sharing rides with household members such as dropping children off at daycare on the way to work. This should be clarified in subsequent surveys with a clearer definition to determine if dropping a child off at day care should be identified as carpooling if it is for more than half of the trip, less than half of the trip, or not at all.

Also the question format changed slightly from 1998 to 2005. In 1998 respondents that indicated they commute with coworkers, or friends or neighbors were asked a separate follow up question about whether the people came from a matchlist or RideGuide. In 2005 it was just one of the options for the original question about who they share rides with.

TABLE 2.9

PRIMARY DIFFERENCES BETWEEN CO-WORKER AND FRIEND/FAMILY CARPOOLS

	Co-Worker Carpools	Friend/Family Carpools
Commute Distance (average one-way miles)	24.1	18.6
Use Freeway	78%	51%
Use HOV lanes (if available)	72%	71%
Months Carpooling (average)	35%	42%
Most Important Mode-Choice Factor:		
Travel Time	16%	9%
Cost/Save Gas	15%	16%
Convenience/Flexibility	14%	8%
Employer Offers Money to Rideshare	19%	10%
Called 1-800-Commute	10%	8%
Visited commutesmart.info	2%	5%
Company Size:		
Under 100 Employees	53%	72%
100 Employees and over	47%	29%
Household Income:		
Under $50,000	68%	68%
$50,000 and Over	32%	32%
Gender: Male	66%	50%
Ethnicity:		
White, non-Hispanic	19%	20%
Hispanic	56%	63%
African-American	8%	10%
Asian	17%	5%
Other	0%	2%
Base:	**248 (8.7%) of the sample**	**148 (5.2%) of the sample**

*Carpools composed of both co-workers and friends/family were considered co-worker carpools.

Carpoolers report that they have been in their carpool for an average of 38 months with over half (52%) having started carpooling within the last year. Van and buspoolers have a longer average time vanpooling for an average of 52 months. The largest categories for vanpoolers are less than six months (36%) and over 10 years (36%).

Those who used an alternative mode of transit either as their primary mode or on a part-time basis were asked how they previously commuted. Half (50%) of all ridesharers drove alone prior to using an alternative mode. This was followed by taking the bus at 16 percent. An additional 10 percent indicated that they did not commute prior to starting to rideshare. Five percent carpooled, and no other mode was mentioned by five percent or more.

Respondents who currently use an alternative mode were also asked why they started to rideshare. The most frequently cited reason was that a coworker suggested it (32%). An additional six percent said that their employer or supervisor suggested it. These factors were followed closely by saving money which includes saving money or gas in general (21%) or specifically because of increases in gas prices (11%). Two other options were mentioned by at least five

percent; being able to use the carpool lanes, and getting new options, bus or train routes, each at six percent.

2.13 CHARACTERISTICS OF BUS RIDERS

Those who report traveling to work on a bus or Metrorail on a primary or part-time basis were asked how long they have been riding. The average length of ridership is 4.7 years or 56 months. A third of all riders (33%) say they have been riding for less than two years and 21 percent say they have been riding 10 years or longer. The average trip distance for bus riders is also shorter than other commuters at 9.5 miles compared to 19.8 for non-bus riders.

Bus riders are younger and have lower average incomes than other modes of commuters. The percent of commuters who use the bus (or Metrorail in Los Angeles County) is 29 percent for those under 20, 11 percent for those in their 20's, and then drops to six percent for those in their 30's, 40's, and 50's. With regard to income 18 percent of those with income below $20,000 ride a bus or Metrorail, 19 percent ride in the $20,000 to $34,999 income category, and then the proportion drops to five percent for those in the $35,000 to $49,999 category. The percentage of riders in all higher income categories never exceeds two percent.

2.14 MAJOR DIFFERENCES BETWEEN PRIMARY AND PART-TIME ALTERNATE MODE USERS

Compared to those who rideshare as their primary mode, part-time ridesharers have a shorter commute distance (16.4 vs. 18.5 miles) and a shorter commute time (85 vs. 99 minutes). Part-time ridesharers have a greater need for a vehicle at work for business or personal reasons one or more days a week (63% vs. 37%). Part-time ridesharers are also more likely than full-time ridesharers to always have a vehicle available to get to work (78% vs. 53%).

Ethnically, part-time ridesharers are more apt than full-time ridesharers to be White (not of Hispanic origin) (35% vs. 15%) and less likely to be Hispanic (47% vs. 67%). Part-time ridesharers are somewhat more likely to be aware of one of the TDM programs available at their worksite (51% vs. 42%).

2.15 SUMMARY OF DIFFERENCES BETWEEN THE 2005 AND PREVIOUS SURVEYS

Commuters in 2005 travel further than in 1998 and are taking longer to make the commute in both directions. The drive alone rate has stayed relatively consistent over all completed studies, but the carpool rate has dropped somewhat, offset by increases in bus and Metrorail ridership. Table 2.10 presents a summary of measures from previous annual surveys. Table 2.11 highlights the differences in commuting characteristics between regular drive-alone commuters and carpoolers.

TABLE 2.10

SUMMARY OF MEASURES ACROSS SURVEYS

Measure	1991	1992	1993	1995	1997	1998	2005
Percentage of Solo Drivers (including motorcyclists)	77%	79%	81%	76%	77%	79%	77%
Mean Distance to Work (miles)	16.6	14.8	16.5	16.5	16.1	16.2	19.2
Median Distance to Work (miles)	10	10	10	12	11	12	15
Mean Time to Work (minutes)	36	33	31	33	32	34	42
Median Time to Work (minutes)	30	30	25	30	25	30	30
Mean Time to Home (minutes)	40	36	36	37	37	41	47
Median Time to Home (minutes)	30	30	30	30	30	30	40
Modal Arrival Time at Work During Peak Hours	7:30 to 8:29 a.m.	8:00 to 8:29 a.m.	7:30 to 7:59 a.m.	8:00 to 8:29 a.m.	7:30 to 7:59 a.m.	8:00 to 8:29 a.m.	7:30 to 7:59 a.m.
Modal Departure Time from Work During Peak Hours	5:00 to 5:29 p.m.	5:00 to 5:29 p.m.	5:00 to 5:29 p.m.	5:00 to 5:29 p.m.	5:00 to 5:29 p.m.	5:00 to 5:29 p.m.	4:30 to 5:00 p.m.
Percentage of Commuters Receiving Free Parking	94%	93%	92%	93%	94%	95%	95%

TABLE 2.11

SUMMARY COMPARISON OF PRIMARY DRIVE ALONE COMMUTERS AND CARPOOLERS

	Drive Alone Commuters	Carpool Commuters
Trip Distance (average)	19.4 miles	20.5 miles
Trip Time to Work (average)	39 minutes	43 minutes
Trip Time to Home (average)	45 minutes	47 minutes
At Work Before 8:00 a.m.	57%	58%
Receive Free Parking	95%	98%
Average Parking Price Paid/Month	$78.72 (121 cases)	$62.77 (7 cases)
Employer Size		
• Less Than 25 Employees	29%	36%
• 100 Employees or more	45%	34%
Need Vehicle at Work for Business/Personal Reasons	67%	48%
Days Per Week Need Vehicle at Work (average)	3.0 days	2.2 days
Household Income		
• Less than $20,000	13%	34%
• $80,000 or More	35%	17%
Ethnicity		
• White	41%	19%
• Hispanic	42%	62%
• Asian	11%	9%
• African-American	6%	9%
Vehicle Always Available	97%	72%
Have Called 1-800-COMMUTE	5%	8%
Have Visited COMMUTESMART.INFO	3%	3%
Base:	**2,195**	**348**

3. DEMOGRAPHIC CHARACTERISTICS

3.1 INTRODUCTION

To better understand regional commuters, it is not only important to know about overall travel behavior, but also how travel behavior varies between different demographic segments of the population. Significant differences between groups of people are highlighted throughout this document. By realizing these differences, marketing strategies can be targeted so that the most effective messages are delivered to the appropriate audiences. This chapter reports on travel behaviors by gender, age, income, ethnicity, and employer site size. Additional demographic characteristics or regional commuters are also reported at the end of this chapter.

The sampling errors associated with the summary statistics of demographic groups in this chapter depend on the sample size of these groups. Table 3.1 below lists sampling errors by sample size at a 95 percent confidence level. This means that on average differences of this size in the survey sample will reflect true differences in the target population 19 out of 20 times.

TABLE 3.1

SAMPLING ERRORS BY SAMPLE SIZE

Sample Size	100	200	300	400	600	800	1000	1500	2000	2500	3000
Sampling Error (%)	9.8	6.9	5.6	4.9	4.0	3.5	3.1	2.5	2.2	1.9	1.8

Source: Calculated based on a formula in Douglas Downing & Jeffrey Clark, Business Statistics, 2nd edition, Barron's Business Review Series, 1992, p. 226

It is important to note, however, that sampling errors associated with any sub-samples of the overall sample may not be estimated accurately since these sub-samples are formed based on demographic characteristics and may not be representative of their respective populations. Their actual sampling errors are likely to be higher than those shown in Table 3.1.

Quotas were established by county to provide a minimum level of accuracy at the county level ($\pm$ 5.6% for Imperial County and $\pm$ 4.2% for all other counties). To correct for over-sampling of the smaller counties weights were developed to provide representative results for the region as a whole. For example Los Angeles County residents would receive higher weights than those in other counties because the ratio of residents to completed surveys is much higher for Los Angeles County than the other counties which have a lower number of commuters.

The results have also been weighted by number of workers in the household, ethnicity and household income to correct for variances in respondent participation and an inherent tendency to over-survey single worker households since only one respondent is surveyed per phone number (or household). The

weighted results more accurately reflect the demographic distribution of commuters based on Census data for ethnicity, age, income and number of workers per household. As with previous studies which also weighted results by county and number of workers per household, the percentages reported here for demographic results reflect the weighted data.

3.2 TRAVEL BEHAVIOR BY GENDER

Gender Distribution Respondents to the 2005 survey are 52 percent male and 48 percent female [Note: the 2000 Census reports 55.2 percent male and 44.8 percent female for full or part-time workers age 16 or over.] Both the Census data and survey results show a slightly higher proportion of female workers than previously reported. Overall these results are consistent with previous studies.

TABLE 3.2

GENDER DISTRIBUTION

	1991		1992		1993		1995		1997		1998		2005	
Gender	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Female	1,186	47%	1,274	49%	1,199	46%	1,350	46%	1,354	46%	1,332	46%	1,352	48%
Male	1,326	53	1,317	51	1,426	54	1,575	54	1,571	54	1,593	54	1,492	52
Total:	2,512	100%	2,591	100%	2,625	100%	2,925	100%	2,925	100%	2,925	100%	2,844	100%

Primary Travel Mode Men and women have comparable drive alone rates in 2005 with men at 78 percent and women at 77 percent. A lower percentage of women (11%) report carpooling (including van and buspooling) than men (15%). Conversely a higher percentage of women report using public transit at 10 percent compared to 3 percent for men.

One-Way Commute Distance Similar to the 1998 study, the average one-way travel distance is higher for men (21.2 miles) than for women (16.9 miles). This is also reflected by the fact that 40 percent of women have commutes of under 10 miles compared to 27 percent for men. Conversely, 15 percent of men have commutes of 40 miles or longer compared to 10 percent for women.

Commute Time to and from Work The average combined commute time to and from work is also longer by ten minutes at 92 minutes for men, and 82 for women. The commute times for both men and women are longer in 2005 than in 1998 and the gap between men and women has expanded from six to ten minutes.

Alternative Mode Commuting The use of alternative modes is similar for men and women with 22 percent of men using alternative modes on a full-time basis and 23 percent for women. Men are slightly more likely than women to use alternative modes on a part-time basis at five percent compared to three percent for women.

Freeway Usage Over half of all commuters used a freeway on their commute to work in the last week. Men, however, are more likely to commute on a freeway (69%) than women (56%).

HOV Lane Usage Even though women are less likely to carpool, among those who do not drive alone, women (75%) are slightly more likely to use HOV lanes on their way to work than men (70%).

Availability of Vehicle for Work Men (89%) are slightly more likely than women (85%) to always have a vehicle available to commute to work. Men (7%) are also more likely than women (5%) to sometimes have a car available, leaving a higher proportion of women (10%) than men (4%) that never have a vehicle available.

3.3 TRAVEL BEHAVIOR BY AGE

Age Distribution The distribution by age for the 2005 study is relatively even across commuters from their 20's to their 50's with 22 percent in their 20's, 27 percent for those in their 30's, 25 percent in their 40's and 19 percent in their 50's. There were also two percent 18-19 years old, and five percent 60 or older.

TABLE 3.3

AGE DISTRIBUTION

	1991		1992		1993		1995		1997		1998		2005	
Age in Years	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Less Than 20	131	5%	73	3%	110	4%	94	3%	76	3%	77	3%	62	2%
20 - 29	776	31	790	31	810	32	834	28	817	28	790	27	618	22
30 - 39	788	32	799	31	776	30	904	31	834	29	872	30	766	27
40 - 49	484	20	499	19	479	19	662	23	633	22	627	22	714	25
50 - 59	228	9	286	11	242	11	342	12	414	14	410	14	528	19
60+	67	3	117	5	91	4	85	3	99	4	119	4	142	5
Total:	**2,545**	**100%**	**2,474**	**100%**	**2,564**	**100%**	**2,922**	**100%**	**2,873**	**100%**	**2,895**	**100%**	**2,830**	**100%**

Primary Commute Mode There is a strong relationship between age and travel mode with younger commuters being more likely to use alternative modes while older commuters are more likely to drive alone. The percentage of drive alone commuters starts at a low of 54 percent for commuters 18 to 20 years old and increases with every age category until it reaches a peak of 86 percent for commuters in their 50's. Commuters in their 60's are the sole exception to the age relationship with an average of 75 percent driving alone.

Younger commuters are much more likely than older commuters to carpool. Fifteen percent of those under 40 report carpooling as their primary mode compared to 10 percent for those 40 or older.

One-Way Commute Distance Travel distance peaks among commuters in their 40's with those 18-19 averaging 15 miles, 18 miles for those in their 20's, 20 miles for those in their 30's, and 21 miles for those in their 40's. It falls off slightly for older workers with those in their 50's averaging 19 miles and those 60 or older averaging 20 miles.

Commute Time to and from Work As would be expected, the average total commute time follows the same pattern as travel distance starting at a low of 68 minutes for those 18-19 and increasing steadily to a high of 91 minutes for those in their 40's. Those 50 and older have lower average total commute times than commuters in their 40's.

Alternative Mode Commuting Full-time use of alternative modes follows the same pattern as carpooling with the percentage of commuters that use alternative modes on a full time basis starting at a high of 45 percent and decreasing with each age category to a low of 14 percent for those in their 50's. It then jumps up again for those in their 60's to 25 percent.

Freeway Usage Freeway usage follows the same relationship to age as commute distance, commute time and use of alternative modes. Over 50 percent of commuters of all ages use freeways on their commute to work, but only 56 percent of those 18-19 use the freeway, and the percentage continues to increase up to 69 percent for those in their 40's. Those in their 50's and 60's are less likely than those in their 40's to use a freeway as part of their commute to work.

Availability of Vehicle for Work Vehicle availability starts at 73 percent for those 18-19 and increases in every subsequent age category to a maximum of 95 percent for those 60 or older.

3.4 TRAVEL BEHAVIOR BY INCOME

Distribution of Household Income Continued economic growth is reflected in a decrease in all but the lowest income category offset by increases in the top two income categories. The income categories generally match the most recent Census data for commuters.

TABLE 3.4

ANNUAL HOUSEHOLD INCOME DISTRIBUTION

	1991		1992		1993		1995		1997		1998		2005	
Income	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Under $20,000	240	12%	227	10%	258	12%	252	9%	359	15%	326	13%	468	18%
$20,000 to $34,999	424	21	454	20	439	20	593	22	496	20	460	18	425	17
$35,000 to $49,999	455	23	502	23	513	24	644	23	457	19	523	20	373	15
$50,000 to $64,999	321	16	350	16	335	15	433	16	387	16	365	14	292	11
$65,000 to $79,999	222	11	259	12	223	10	264	10	233	10	294	11	238	9
$80,000 to $99,999	162	8	183	8	176	8	243	9	206	8	245	9	255	10
$100,000 and over	173	9	239	11	249	11	308	11	298	12	403	15	513	20
Total:	**1,997**	**100%**	**2,214**	**100%**	**2,193**	**100%**	**2,737**	**100%**	**2,436**	**100%**	**2,614**	**100%**	**2,564**	**100%**

Note: not adjusted for inflation.

Primary Travel Mode There is a strong relationship between income and primary travel mode with the percentage of those driving alone steadily increasing in step with total household income. Fifty-six percent of those in the lowest income category (under $20,000) drive alone. This increases with income rising to 89 percent of those with incomes above $100,000. Conversely those carpooling or riding the bus or Metrorail decrease with income. Twenty-four percent of those with a total household income of less than $20,000 carpool, and an additional 16 percent use public transit (bus or Metrorail). As the income level of commuters increases, the proportion that carpool or take the bus decreases dropping to nine percent carpooling for those with an income of $100,000 or more, and two percent in this income category commuting by bus (or Metrorail).

One-Way Commute Distance Commute distance is positively related to income level for those in all income categories up to $50,000 - $64,999. Commute distance starts at 12 miles for those with under $20,000 household income and increases to 23 miles for those in the $50,000 - $64,999 category. The higher income categories have average commute distances that are above 20 miles or higher, but all at least a mile lower than the $50,000 - $64,999 category.

Commute Time to and from Work As with commute distance, to work and to home commute time increases with income (up to the $50,000 - $64,999 category) from a low of 76 minutes for those with less than $20,000 total household income to 99 minutes for those in the $50,000 - $64,999 income

category. Those in the higher income categories have somewhat lower total average commute times.

Alternative Mode Commuting Following the higher tendency to carpool or use the bus as their primary commute mode, the proportion of alternative mode users decreases with income. A high of 44 percent of commuters with less than $20,000 household income use alternative modes as their primary commute mode. This drops an average of 10 percent in each of the next three income categories to 35 percent for those with $20,000 - $34,999 household income, 22 percent in the $35,000 - $49,999 category, and 15 percent for those earning $50,000 - $64,999. The higher categories have even lower percentages, but the decreases are much smaller at 11-12 percent alternative mode commuting.

Freeway Usage As with distance traveled, freeway usage is positively related to income level starting at a low of 50 percent for commuters with less than $20,000 household income and increasing with almost every income category to a high of 74 percent for those in households earning over $100,000.

Availability of Vehicle for Work There is a clear breaking point in the relationship between household income and availability of a vehicle to commute to work. Twenty percent of commuters in the under $20,000 household income category indicated that they never have a vehicle to commute to work. This remains at a relatively high 16 percent for those with household incomes of $20,000 - $34,999, and drops significantly to three percent for those with household income of $35,000 - $49,999. For every category for household with $50,000 or more income, the percentage of those who never have a vehicle available to commute is less than one percent.

3.5 TRAVEL BEHAVIOR BY ETHNICITY

Travel Behavior by Ethnicity The distribution of respondents has followed a long range pattern of decreasing White, non-Hispanic respondents and an increase in Hispanic respondents. Table 3.5 reflects a 10 percent decrease in White, non-Hispanics and 10 percent increase in Hispanics from the 1999 study, and is in line with the most recently available Census data for commuters. Other ethnicities have remained within two percent of the previous study results.

Only four of the six ethnic groups have a substantial number of respondents that allow for meaningful breakdowns of results. The four major ethnic groups and their percentage of the commuter population are: White, non-Hispanic (35%), Hispanic (47%), Asian (11%), and African-American (7%).

TABLE 3.5

ETHNIC GROUP

	1991		1992		1993		1995		1997		1998		2005	
Group	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
White, not Hispanic	1,427	59%	1,434	57%	1,436	56%	1,621	56%	1,378	49%	1,320	46%	977	35%
African-American	127	5	192	8	224	9	207	7	166	6	166	6	183	7
Hispanic	628	26	585	23	632	24	750	26	1,013	36	1,038	36	1,328	47
Asian	179	8	219	9	223	9	245	9	236	8	258	9	301	11
American-Indian	31	1	31	1	22	1	33	1	30	1	50	2	7	0
Other	22	1	57	2	18	1	35	1	3	0	12	0	16	1
Total:	2,414	100%	2,518	100%	2,555	100%	2,891	100%	2,826	100%	2,844	100%	2,812	100%

Primary Travel Mode There are clear differences in primary travel mode by ethnicity. Caucasians are more likely to drive alone (90%) and less likely to carpool (7%) or use a bus (1%). Conversely, Hispanics and African Americans are less likely to drive alone (68% and 69% respectively), and more likely to carpool (16% and 17% respectively) or ride the bus (11% and 12%).

One-Way Commute Distance Although there are significant differences in travel mode between the various ethnic groups, the differences in mileage traveled to work are moderate. They range from a low of 18 miles for Hispanics to 20 for Asians and 21 for Caucasians and African Americans.

Commute Time to and from Work Both travel distance and commute mode impact total travel time. African-Americans and Caucasians have the longest average travel times at 98 and 88 minutes respectively. Hispanics have a slightly lower average travel time of 86 minutes followed by Asians at the lowest average of 85 minutes.

Alternative Mode Commuting Following the primary rideshare mode Hispanics and African-Americans have the highest proportion of commuters using alternative modes as their primary way of getting to work, both at 32 percent. African-Americans also have the highest proportion of those using an alternative mode on a part-time basis at seven percent. Conversely, African-Americans and Hispanics have the lowest proportion of commuters who drive alone at 62 percent and 64 percent respectively.

Caucasians are the least likely to use alternative modes with only 10 percent using an alternate mode as their primary way of getting to work and an additional four percent on a part-time basis. Twenty percent of Asians employ an alternate mode as their primary way of getting to work and three percent use an alternate mode on a part-time basis.

Freeway Usage Caucasians and Asians are more likely than Hispanics and African-Americans to use a freeway as part of their commute. The differences are not, however, dramatic. Fifty-nine percent of Hispanics use a freeway for at least part of their commute and 61 percent African-Americans also do. It is somewhat higher for Caucasians at 66 percent and Asians are the most likely to commute on a freeway at 71 percent.

Availability of Vehicle for Work Hispanics are the least likely to have a vehicle for commuting with 78 percent saying they always have a vehicle available, nine percent saying they sometimes do, and 13 percent saying they never have a vehicle available. African-Americans are the next least likely to have a vehicle to commute, but vehicle availability is somewhat higher with 85 percent always having one available and eight percent each having one available sometimes or never.

Caucasians and Asians are the most likely to report having a vehicle available with 96 and 93 percent respectively saying that they always have a vehicle available to commute. For both Caucasians and Asians three percent say the sometimes have a vehicle available, only one percent of Caucasians and two percent of Asians say they never have a vehicle available for commuting.

3.6 TRAVEL BEHAVIOR BY EMPLOYER SIZE

Distribution of Employer Size A majority of commuters (57%) work at work sites with less than 100 employees with more than half of these (30%) at sites with fewer than 25 employees. Among the sites with over 100 employees 15 percent work at sites with 100 to 249 employees, 12 percent at sites with 250 to 499 employees, and 16 percent with 500 or more employees.

Primary Commute Mode There is no strong relationship between employer work site size and commute mode.

One-Way Commute Distance As with travel mode, the one-way commute distance does not have a strong relationship with employer size, although those at worksites with 250 or more employees appear to have longer commutes (22 miles) than those below 250 (18 miles).

Commute Time to and from Work Similar to commute distance, total commute time is higher for employer work sites of 250 or more employees (95 minutes) than at smaller work sites with fewer than 250 employees (85 minutes).

Alternative Mode Commuting Use of alternative modes does not appear to be strongly related to employer worksite size, although the average full-time drive alone percentage is slightly lower in firms with fewer than 100 employees (71%) than in larger worksites with 100 or more employees (76%).

Primary Commute Mode As with primary commute mode, there is not a clear pattern or relationship between use of alternative modes and employee work site size.

Availability of Vehicle for Work Although there is not a strong relationship between employee work size and vehicle availability, employees at work sites with less than 100 employees are somewhat less likely (82%) to always have a vehicle available, and more likely to have one available sometimes (8%), or not at all (8%). This compares with employees at organizations with 100 or more employees where 94 percent always have a vehicle available and three percent each sometimes have a vehicle available, or never have a vehicle available.

3.7 ADDITIONAL DEMOGRAPHIC CHARACTERISTICS

Length of Stay at Home Residence Over a fifth of commuters (23%) have lived at their current residence for less than two years. An additional 18 percent have lived at their current location for two to three years and 16 percent for four to five years. Twenty-one percent have lived in the same home for six to ten years and 14 percent for 11 to 20 years, and eight percent for more than 20 years. Using the categories to create an approximate average (the under two years and over 20 years are treated as two and 20 respectively) results in an overall average of 7.1 years. This is a drop from 7.6 years in 1998 and 8.4 years in 1997.

Annual Personal Income Annual household incomes have increased since 1998, which had in turn increased over 1997. In 2005 18 percent of commuter households report an annual income of under $20,000, 17 percent $20,000 to $34,999, and 15 percent $35,000 to $49,999. Over half of all households have total household income of over $50,000 with 11 percent in the $50,000 to $64,999 range, nine percent in the $65,000 to $79,999 range, 10 percent in the $80,000 to $99,999 range, and 20 percent $100,000 or more.

Number of Working Days in a Week Three quarters of workers commute (75%) five days a week. An additional 16 percent work six or seven days, and six percent work two to four days per week.

Number of Household Motor Vehicles Owned or Leased The number of vehicles per household has stayed essentially the same since 1998 with 39 percent of all households having three or more vehicles compared to 38 percent in 1998. Most of these households have either three (22%) or four (10%) vehicles, with the remaining eight percent spread over five or more vehicles. Over a third of commuter households have two vehicles at 37 percent and 19 percent have one vehicle. Five percent of all households have no vehicles.

Availability of a Vehicle to Work Almost nine out of ten commuters (87%) indicate they have a vehicle available to commute to work all of the time. This is slightly lower than the 89 percent reported in 1998. Six percent report that they have a vehicle available some of the time and seven percent say they never have a vehicle available.

4. EMPLOYER TRANSPORTATION PROGRAMS

4.1 INTRODUCTION

Employers have long been considered by many transportation demand management professionals to be the key to successful transportation demand management strategies as they can implement, promote, and monitor various transportation programs at their work site. They also represent the most efficient way to reach commuters with a shared destination. There have been several changes in employer regulations over the past decade and the results of the study will reflect how these policy changes in combination with other factors have impacted awareness of and use of employer transportation programs at worksites.

4.2 AWARENESS AND PARTICIPATION IN EMPLOYER PROGRAMS

Respondents to the survey were asked what their employer does to encourage employees to rideshare. Specific programs were mentioned and respondents were asked whether they were aware that their employer offered these programs.

The historical trend for awareness of employer-provided programs reflects increasing awareness from 1991 through 1995, and then reversed with decreasing awareness starting in 1997 and continuing in 1998 and 2005[21].

In 2005 a number of the awareness questions were eliminated to reduce the survey length. In addition, some new questions were added that are similar to a previous question, but slightly different. In these cases the new questions are reported separately (see pie charts on following page), but the historical data for the similar question is also presented as a point of comparison. The questions that are unchanged from 1998 and the question where historical information is provided as a point of comparison are presented in Table 4.1.

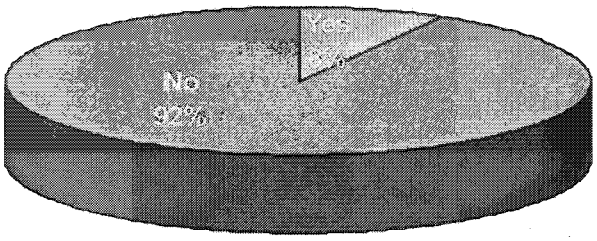
The percentage of commuters who were not familiar with the TDM programs mentioned increased from 25 percent in 1998 to 60 percent in 2005. However, the numbers are not comparable because there were 16 specific programs reviewed with respondents in 1998 compared to four in 2005.

Awareness of TDM programs in total is higher among larger work-site commuters with 30 percent awareness at worksites with fewer than 25 employees, 33 percent for the 25 to 99 category and 51 percent for commuters with 100 or more employees.

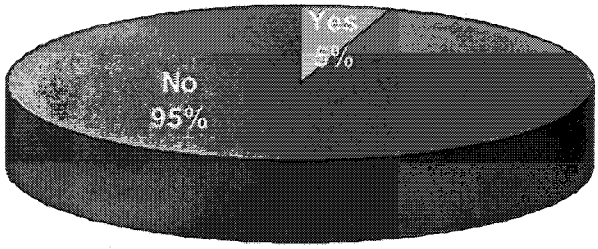
[21] See subsequent footnote for change in methodology of reporting for awareness questions attached to Table 4.1

FIGURE 4.1: NEW QUESTIONS 2005

Financial Incentives to Ridesharers



$2 A Day Incentives for Ridesharers



The two questions above, asked for the first time in 2005, are both similar, but slightly different from the last question in Table 4.1 below. The specific question wording for the first charted question is "Does your employer provide financial incentives to ridesharers?" and the second charted question is "Does your employer provide the $2 a day incentive program for ridesharing?" The language for the similar question in 1998 is "Does your employer give money to those who rideshare?"

TABLE 4.1[22]

AWARENESS BY EMPLOYEES OF EMPLOYER TRANSPORTATION PROGRAMS

Employer Program	1991	1992	1993	1995	1997	1998	2005
Assists in Forming Carpools and Vanpools	31%	32%	36%	38%	28%	27%	19%
Guarantees A Ride Home in Case Of An Emergency	34	39	40	42	38	34	25
Sells Bus/Rail Passes	10	9	10	10	8	6	7
Offers 4/40 Work Schedule	15	20	20	18	18	18	10
Offers 9/80 Work Schedule	11	12	11	10	10	9	7
Offers 3/36 Work Schedule	8	6	6	6	5	5	6
Subsidized Ridesharing	15	19	20	15	10	8	NA

[22] For most questions such as demographics "refusals" and "don't knows" are spread over other responses in proportion to the other responses provided to bring the total to 100%. For awareness questions "don't know" generally equates to a "no" in terms of awareness of the program and thus the "don't knows" are treated as "no's." This is a change from previous years, and the previous "yes" percentages would be slightly lower if reported this way.

The 2005 results reflect a general decline in the awareness of rideshare programs. Employer assistance with ridesharing, guaranteed ride home programs, and selling bus passes were all at their peak in 1993 and have declined in every category from year to year with the exception of selling bus passes which held even between 1993 and 1995, and then increased by a percentage point between 1998 and 2005.

With regard to work schedules, the 4-40 work week has held relatively constant until 2005 when it dropped to 10 percent from 18 percent in 1998. Prior to that, it had peaked at 20 percent in 1993, dropped to 18 percent in 1995, and then held even at 18 percent through 1998. Similarly, the 3-36 work schedule has held relatively constant, not changing by more than a percentage point from one study to the next since 1992, and finishing up one percent from 1998 in 2005 at six percent. The 9-80 work schedule has continued to gradually decline from a peak of 12 percent in 1992 to the current seven percent, a two percent drop from 1998's nine percent.

TABLE 4.2

AWARENESS BY EMPLOYEES OF EMPLOYER TRANSPORTATION PROGRAMS BY EMPLOYER SIZE

	Number of Employees at the Work Site											
	Less than 25				25-99				100+			
Employer Program	**1995**	**1997**	**1998**	**2005**	**1995**	**1997**	**1998**	**2005**	**1995**	**1997**	**1998**	**2005**
Assists in Forming Carpools and Vanpools	14%	10%	10%	7%	26%	16%	19%	10%	71%	55%	50%	35%
Guarantees A Ride Home in Case Of An Emergency	37	36	31	25	37	32	36	21	52	44	37	24
Sells Bus/Rail Passes	2	2	1	2	8	6	4	4	21	15	14	13

Awareness for two out of the three employer programs is much higher for commuters working at worksites with 100 or more employees with 35 percent of commuters from these worksites recalling assistance with carpooling, and 13 percent recalling sales of bus passes. This compares with 10 percent and four percent respectively for commuters from worksites with 25 to 99 employees, and seven percent and two percent for those from worksites with fewer than 25 employees. The exception is the guaranteed ride home program which actually had the highest level of awareness in the smallest worksite category, although recall was generally comparable in the two larger categories as well.

4.3 ALTERNATIVE WORK SCHEDULES

Awareness of alternative work schedules[23] has remained relatively constant for 3-36 and 9-80 work weeks with the former increasing one percent to six percent and the latter decreasing by two percent to seven percent. However, the awareness of a 4-40 work-week program has dropped from 18 percent in 1998 to 10 percent in 2005.

Participation rates[24] in flexible schedules have increased across all three flexible-schedule programs from 1998 to 2005. Participation in 3-36 and 9-80 are up marginally from 12 to 13 percent, and 29 to 33 percent respectively, while participation in the 4-40 schedule (21%) is almost double the 1998 rate (12%). The end result is that even though awareness rates have dropped from 1998 to 2005, higher participation rates have resulted in virtually the same proportion of all commuters participating in flex-time programs. In 2005 the percentage of all commuters participating in flex-time programs is 0.8 percent for 3-36, 2.2 percent for 4-40, and 2.4 percent for 9-80. This is similar to the 0.6, 2.1 and 2.4 percent reported in 1998.

TABLE 4.3

PARTICIPATION IN FLEXIBLE SCHEDULE PROGRAMS

Employer Program	1992	1993	1995	1997	1998	2005
4/40 Work Schedule	53%	42%	15%	11%	12%	21%
9/80 Work Schedule	43	35	26	32	29	33
3/36 Work Schedule	34	43	11	10	12	13

4.4 TELEWORK

The percentage of commuters that have the opportunity to telework (work at home instead of commuting to their regular place of work) has increased from 1998's 8.6 percent to 12.7 percent in 2005. This also exceeds the 8.8 percent in 1997, and even the 12.5 percent reported in 1993.

Over three-quarters of those that have the opportunity to telework (76%) take advantage of it by teleworking at least one day per month. The average number of days teleworking has also increased from 3.2 days in 1998 to 4.8.

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[23] In 2005 the question was asked on an unaided basis, "Which schedules do they offer?" In 1998 the question was asked on an aided basis; e.g. "does you employer offer a 4/40 work schedule (four day work week working 10 hours a day)?" Aided response questions generally produce higher positive responses than unaided response questions.

[24] Participation rates in this table are defined as the percentage of those aware of a program, that then participate in the program. They do not represent the percentage of all commuters that participate in these programs.

4.5 USE OF INFORMATION PRIOR TO COMMUTE TO AVOID CONGESTION

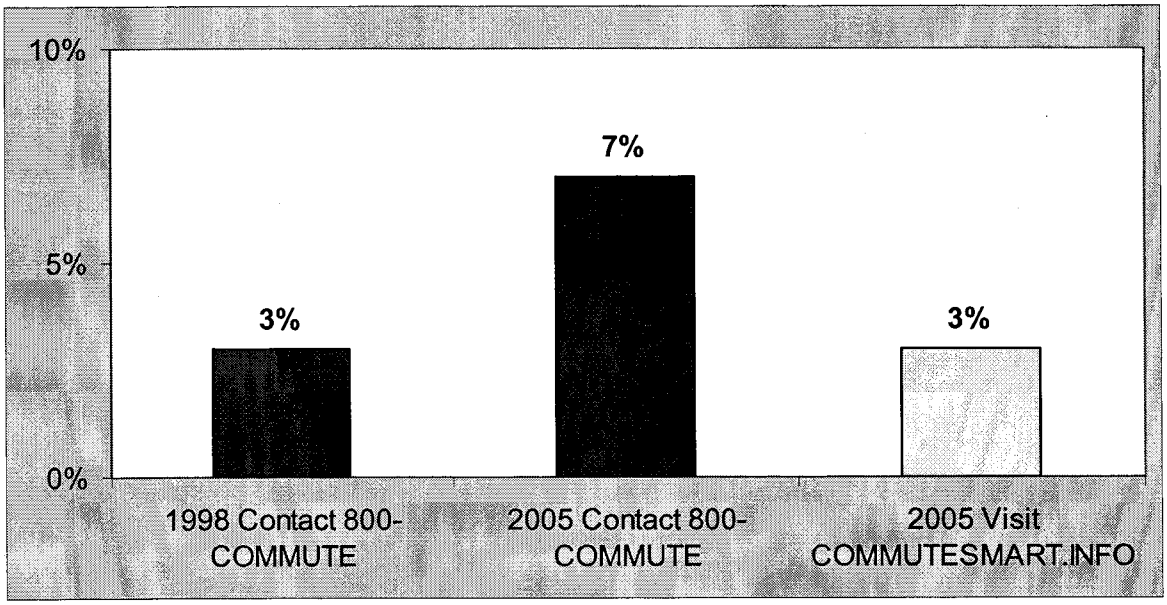
Forty-eight percent of commuters say they use information prior to their commute to help avoid congestion. The most common sources of information are radio and TV at 69 and 45 percent respectively. At 10 percent the Internet was the only other factor mentioned by more than one percent of commuters. It should be noted that COMMUTESMART.INFO had its own separate category and was cited by one percent bringing total Internet usage to 11 percent. Coffee shop traffic boards were also cited by one percent.

The most likely action for people to take based on this information is to change their route (83%). Thirty-nine percent change the time they leave and two percent change their mode of commuting.

4.6 1-800-COMMUTE AND COMMUTESMART.INFO

In 2005 usage of the 1-800-COMMUTE line has increased significantly from three percent to seven percent. A new question was also added this year about the COMMUTESMART.INFO website. A respectable three percent say that they have visited this website. This information is presented in the following chart.

FIGURE 4.2: USE OF COMMUTE INFORMATION SOURCES



Use of the 1-800-COMMUTE is more common among women (9%) than men (5%), but approximately the same for COMMUTESMART.INFO. The following tables break down the usage of 1-800-COMMUTE and COMMUTESMART.INFO by gender, ethnicity and county.

TABLE 4.4

ACCESSED THE 1-800-COMMUTE NUMBER & COMMUTESMART.INFO WEBSITE BY GENDER

By Gender	Male	Female
1-800-COMMUTE	5%	9%
COMMUTESMART.INFO	3	4

African Americans indicate the highest use level for both 1-800-COMMUTE (12%) and COMMUTESMART.INFO (7%). This is followed by Asians at 12 percent and five percent respectively. Caucasians and Hispanics have slightly lower use of both information sources.

TABLE 4.5

ACCESSED THE 1-800-COMMUTE NUMBER & COMMUTESMART.INFO WEBSITE BY ETHNICITY

BY ETHNIC GROUP	White	African-American	Hispanic	Asian
1-800-COMMUTE	5%	15%	6%	12%
COMMUTESMART.INFO	3	7	3	5

The differences in use of these two information sources across counties is relatively small with Los Angeles and San Bernardino commuters making the heaviest use of both 1-800-COMMUTE and COMMUTESMART.INFO. The other counties are slightly lower with the exception of Imperial which showed no use for either source.

TABLE 4.6

ACCESSED THE 1-800-COMMUTE NUMBER & COMMUTESMART.INFO WEBSITE BY COUNTY

By County	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
1-800-COMMUTE	8%	4%	5%	8%	6%	0%
COMMUTESMART.INFO	4	3	2	5	2	0

5. COMMUTER ATTITUDES

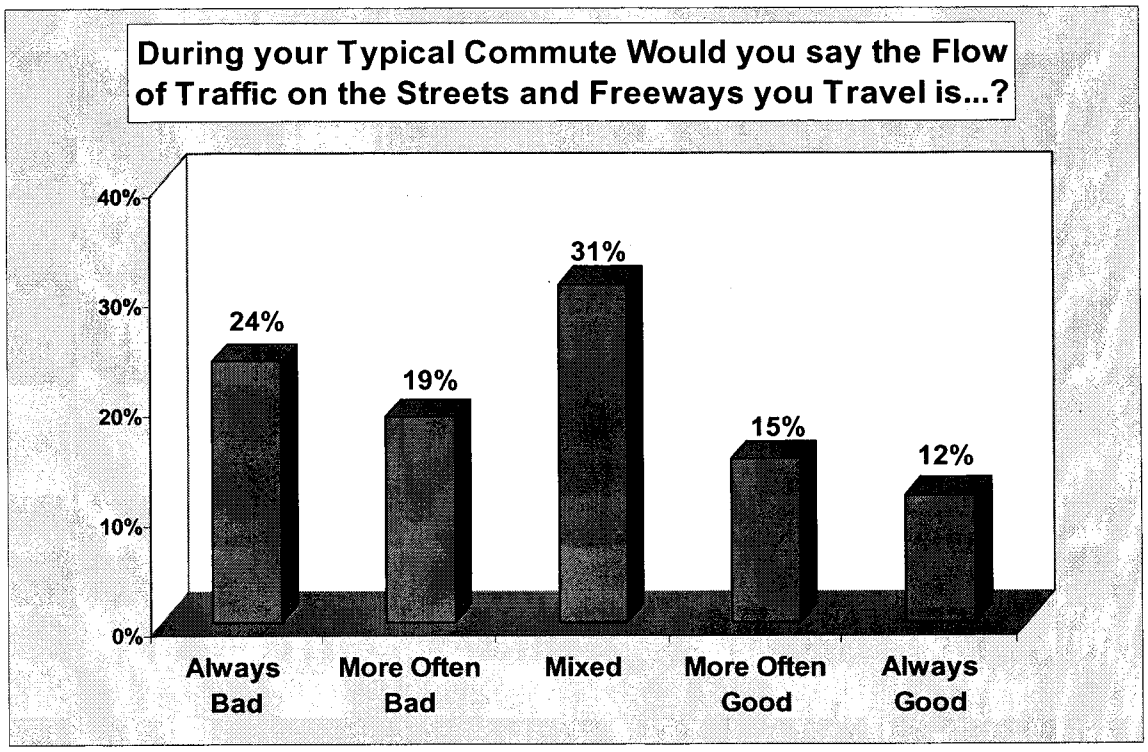
5.1 INTRODUCTION

As in previous surveys, respondents to the 2005 survey were asked a variety of attitudinal questions to learn about their perceptions of traffic conditions, commute satisfaction, factors influencing travel mode choice, use of HOV or carpool lanes, and awareness of regional ridesharing services such as the 1-800-COMMMUTE information line and COMMUTESMART.INFO website. The number of questions asked in 2005 has been reduced and additional questions have been combined to produce a shorter survey instrument.

5.2 ATTITUDES TOWARD THE COMMUTE

Survey respondents were asked to evaluate traffic during their commute, considering both surface streets and freeways[25]. Only 12 percent believe that the flow of traffic is always good, and 15 percent believe that it is more often good than not. Thirty-one percent say it is mixed, and the remaining 43 percent say that it is more often than not bad (19%), or always bad (24%).

FIGURE 5.1: TRAFFIC FLOW ON STREETS AND FREEWAYS 2005



[25] In 1998 this was asked as two separate questions, one for surface streets and one for freeways. In 2005 they were combined into one question. Historical data follows in table format.

Because the freeway and surface street questions were combined the data is not directly comparable to previous surveys. However, it appears to be following the trend established over the previous three surveys, as the rating for always being bad had increased for both freeways and surface streets from 1995 to 1997 and then again from 1997 to 1998. The percentage saying that traffic flow is always good also decreased from 1995 to 1997 and from 1997 to 1998 for both freeways and surface streets. The comparison from 1998 to 2005 is portrayed in the following chart, and the details of the historical data from 1991 are provided in Tables 5.1 and 5.2.

FIGURE 5.2: TRAFFIC FLOW ON STREETS AND FREEWAYS SEPARATE FOR 1998, COMBINED FOR 2005

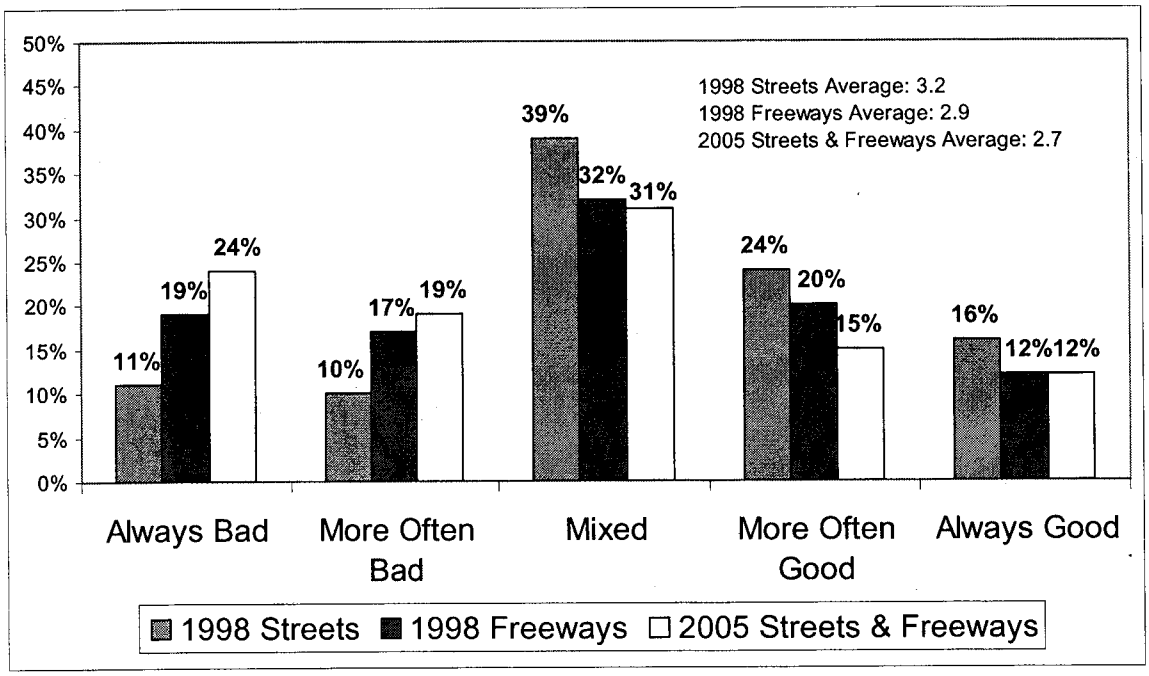


TABLE 5.1

PERCEPTIONS OF FREEWAY TRAFFIC AMONG FREEWAY USERS 1991 - 1998

Traffic Rating	1991	1992	1993	1994 No Data	1995	1996 No Data	1997	1998
Always Bad	19%	20%	18%	NA	13%	NA	16%	19%
More Often Bad	30	14	16	NA	19	NA	19	17
Mixed	8	19	16	NA	31	NA	29	32
More Often Good	27	25	24	NA	21	NA	21	20
Always Good	16	22	26	NA	16	NA	15	12

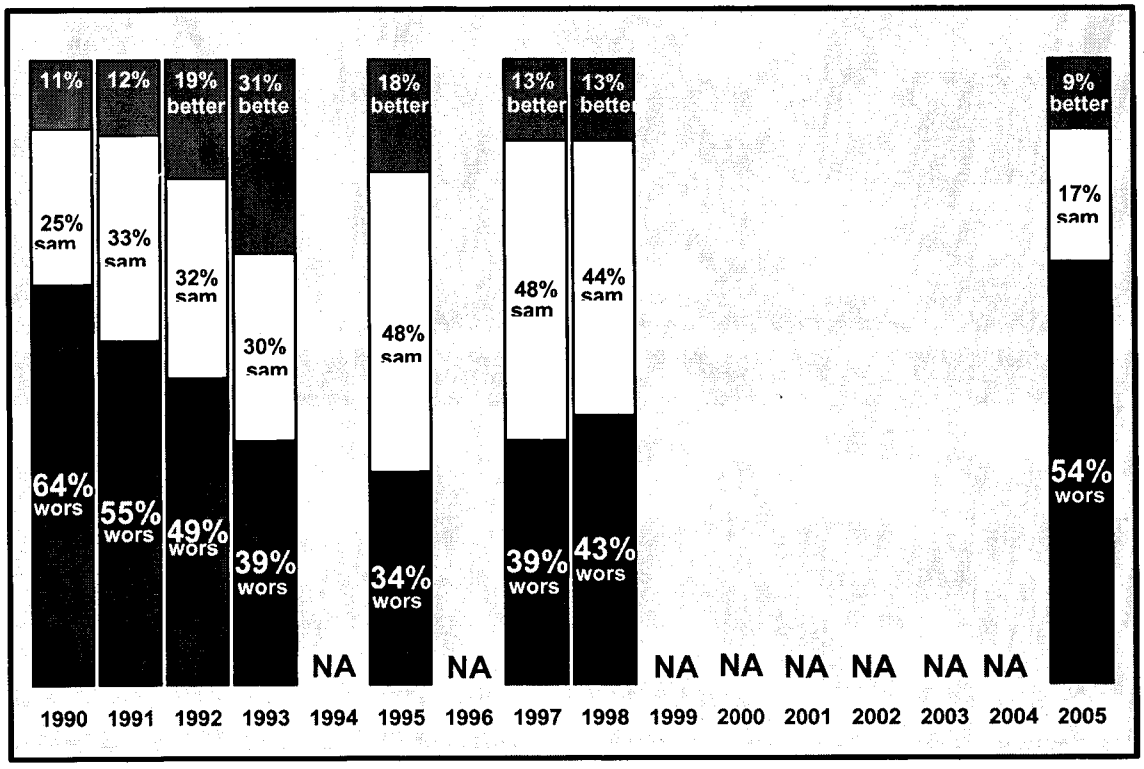
TABLE 5.2

PERCEPTIONS OF SURFACE STREET TRAFFIC AMONG ALL COMMUTERS 1991 - 1998

Traffic Rating	1991	1992	1993	1994 No Data	1995	1996 No Data	1997	1998
Always Bad	11%	12%	11%	NA	5%	NA	6%	11%
More Often Bad	21	12	15	NA	14	NA	11	10
Mixed	7	17	16	NA	33	NA	38	39
More Often Good	33	27	21	NA	28	NA	27	24
Always Good	28	32	37	NA	20	NA	18	16

The perception that traffic is getting worse is becoming more pronounced with a majority of 54 percent saying that traffic on freeways and surface streets is worse than a year ago and only nine percent saying it is better. Thirty-seven percent said it is about the same. The following chart compares the percentage in 2005 saying that the flow on both surface streets and freeways is worse than a year ago, and the percentage saying the flow on freeways is worse than a year ago for previous studies. In all previous studies the question was asked separately for surface streets and freeways. The freeway numbers were used for comparison since there was always a higher percentage saying conditions were worse than for the same question for surface streets.

FIGURE 5.3: RATINGS OF CURRENT FREEWAY TRAFFIC VS. ONE YEAR AGO



This also follows the trend established over the previous three studies when the percentage saying freeway traffic is worse than a year ago increased from 34 percent in 1995 to 39 percent in 1997 and to 43 percent in 1998. Similarly, the percentage of commuters that said surface street traffic was worse than a year ago increased from 28 percent in 1996 to 30 percent in 1997, and 33 percent in 1998. The historical data broken out between freeways and surface streets follows in Table 5.3 and Table 5.4.

TABLE 5.3

COMPARISON OF CURRENT FREEWAY TRAFFIC TO ONE YEAR AGO

Traffic Rating	1991	1992	1993	1994 No Data	1995	1996 No Data	1997	1998	1999 – 2004 No Data	2005
Better than a year ago	12%	19%	31%	NA	18%	NA	13%	13%	NA	9%
Same as a year ago	33	32	30	NA	48	NA	48	44	NA	37
Worse than a year ago	55	49	39	NA	34	NA	39	43	NA	54

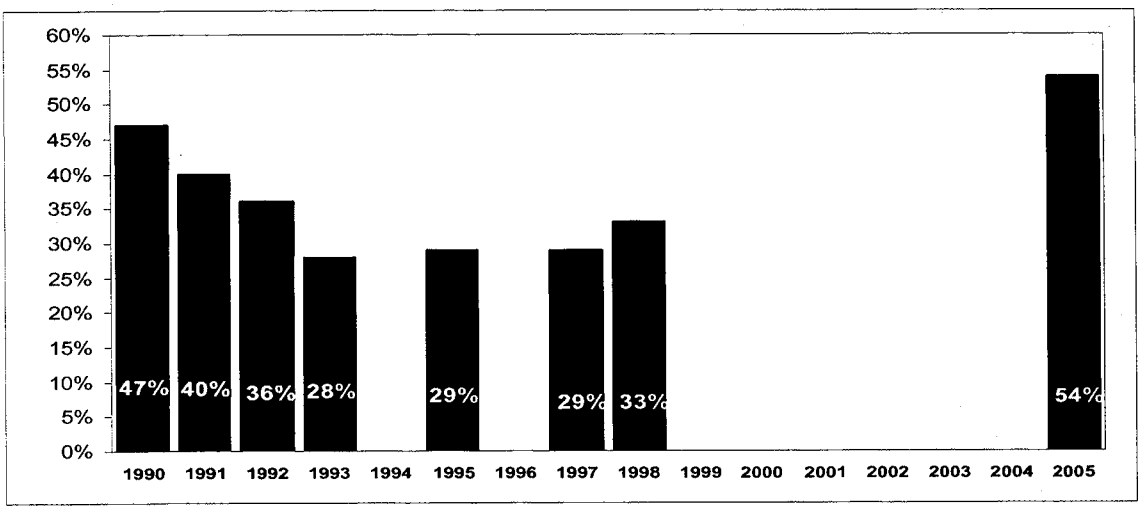
TABLE 5.4

COMPARISON OF CURRENT SURFACE STREET TRAFFIC TO ONE YEAR AGO

Traffic Rating	1991	1992	1993	1994 No Data	1995	1996 No Data	1997	1998	1999 – 2004 No Data	2005
Better than a year ago	13%	18%	17%	NA	10%	NA	11%	10%	NA	10%
Same as a year ago	41	40	48	NA	62	NA	59	57	NA	57
Worse than a year ago	46	42	35	NA	28	NA	30	33	NA	33

Commuters were also asked if there commute time is longer than it was one year ago. For the first time, over half of all commuters (54%) believe their commute time is longer. This compares with a previous high of 47 percent in 1990 and most recently 33 percent in 1998.

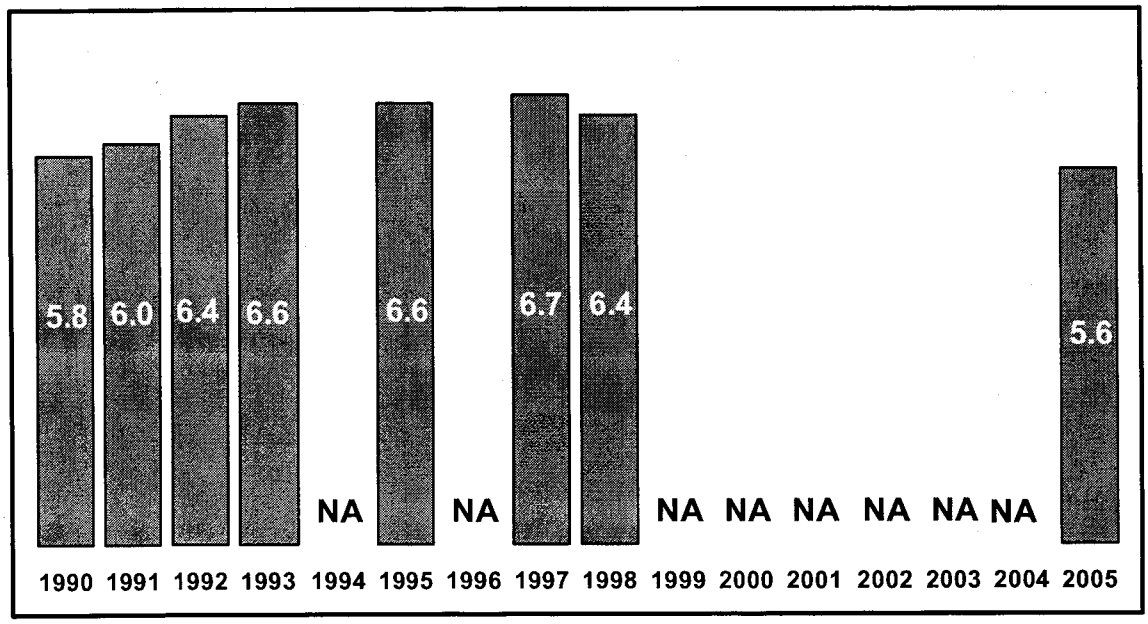
FIGURE 5.4: PERCENT OF COMMUTERS SAYING COMMUTE TAKES LONGER THAN A YEAR AGO



5.3 OVERALL SATISFACTION WITH COMMUTE

Each year since 1990, survey respondents have been asked to rate their overall satisfaction with their commute, using a scale of one to nine where one represents the least satisfaction and nine represents the most satisfaction. The average satisfaction rating reported by all commuters improved steadily from 1990 to 1997, but has declined from 1997 to 1998, and the 2005 average of 5.6 is the lowest rating overall, slightly lower than 1990's 5.8 rating.

FIGURE 5.5: OVERALL SATISFACTION WITH THE COMMUTE26



[26] On a scale of 1 to 9 where 1 is least satisfactory and 9 is most satisfactory.

A little more than a quarter of all commuters rate their satisfaction at either an eight or nine (27%), down from 36 percent in 1998. Conversely, 14 percent provided the lowest ratings of one or two, up from six percent in 1998.

With and average satisfaction rating of 6.5, public transit users tend to be more satisfied with their commute than both drive alone commuters and people who rideshare (carpool, vanpool, and buspool). These two groups each have an average rating of 5.5. Although commuters who walk have the highest average rating, and those who motorcycle have the lowest, the sample sizes for those groups as well as those who take the train, vanpool, buspool, bicycle or motorcycle are too small to be compared to other groups.

TABLE 5.5

COMMUTE SATISFACTION BY TRAVEL MODE

Primary Travel Mode	Average Satisfaction Rating	Number of Cases
Walk	6.9	17
Bus	6.5	181
Train	6.1	49
Carpool	5.6	348
Drive Alone	5.5	2196
Vanpool	5.4	18
Buspool	4.7	14
Bicycle	5.4	16
Motorcycle	4.6	7

Travel distance is clearly a factor in overall commute satisfaction with satisfaction dropping as travel distance increases. Those with commutes of under five miles have the highest commute satisfaction with an average rating of 7.1 and those with the longest commutes of 45 miles and over have the lowest average commute satisfaction rating at 4.3.

TABLE 5.6

COMMUTE SATISFACTION BY TRIP DISTANCE

Trip Distance	Average Satisfaction Rating	Number of Cases
Less than 5 miles	7.1	375
5-9 miles	6.3	517
10-14 miles	6.1	410
15-19 miles	5.2	328
20-24 miles	4.9	221
25-29 miles	5.0	202
30-34 miles	4.9	184
35-44 miles	4.5	212
45 miles and over	4.3	230

5.4 MODE SELECTION FACTORS

Respondents were asked which factors they consider when choosing their means of transportation to work. The factors mentioned by 10 percent or more of respondents include:

- Convenience/flexibility (28%)
- Travel time to work (18%)
- Having no other way to get to work (17%)
- Commuting costs (15%)
- Safety (13%)
- Not being dependant on others (12%)
- Privacy (11%)
- Comfort/relaxation (11%)
- Reliability/dependability (10%)

Convenience/flexibility, travel time, and having no other way to get to work maintain the same one, two and three rankings as in 1998. However, commuting costs as a factor in mode selection has jumped from position number eight at eight percent to number four at 15 percent. Safety, not being dependent on others, and privacy are new on the 10 percent list at positions five, six, and seven. Comfort/relaxation and reliability/dependability are repeats from 1998, and although they are each one position lower than in 1998 they were each mentioned by two percent more people in 2005.

A comparison of mode choice factors by primary commute mode is helpful for understanding the leading motivations for ridesharing (note: the sample bases for vanpool, rail, bicycle and walk are too small too be included; the sample base for bus riders is too small to form quantifiable conclusions but is shown here only to provide the relative weights of the specific factors).

As detailed in Table 5.7, those that drive alone are more likely to consider convenience/flexibility, not being dependent on others, privacy, reliability and dependability, having a vehicle during work, having a vehicle before and after work, and being able to get home at any time.

Carpoolers are more likely to mention having no alternative and commuting costs as factors in their mode selection decision. At a lower level, they also mention having someone to whom they can talk.

Although the differences are not significant, bus/Metro riders are more likely to consider commuting costs and safety.

TABLE 5.7

FACTORS * CONSIDERED WHEN CHOOSING MODE BY PRIMARY COMMUTE MODE

	Drive Alone	Carpool	Bus**
Convenience / Flexibility	32%	16%	5%
Travel Time	17	19	17
Other Way(not right title)	16	22	17
Enjoy Talking to Someone	0	7	5
Not Being Dependent on Others	7	1	0
Privacy	13	3	8
Commuting Costs***	12	19	26
Reliability / Dependability	12	4	1
Safety	12	12	28
Having Vehicle During Work	10	6	1
Comfort / Relaxation	11	11	6
Having Vehicle Before/After Work	10	4	0
Work Hours	10	2	5
Vehicle to Transport Kids	7	8	0
Get Home Anytime	7	1	0
Base:	2,350	306	84

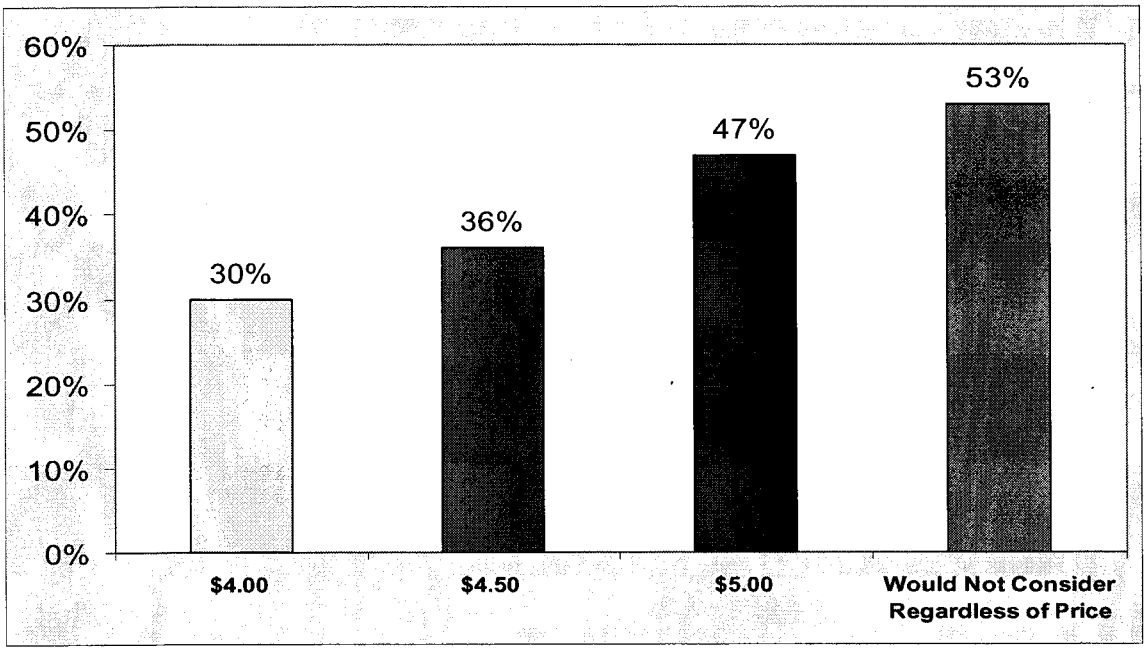
* Question posed on open-ended basis. Multiple responses were recorded, so percentages total more than 100 percent. Only factors mentioned by more than 5 percent are shown in Table.

**Base is too small for statistical confidence.

***Includes "save gas".

5.5 IMPACT OF GAS PRICES

FIGURE 5.6: AT WHAT GAS PRICE WOULD YOU CONSIDER AN ALTERNATIVE MODE?



Commuters who drive alone were asked if gas prices continued to rise, at what price they would consider ridesharing or using public transit to get to work one or more days per week. At 30 percent, almost a third indicated that they would consider alternative modes if gas continued to rise to $4.00 per gallon. This increased slightly to 36 percent at $4.50 per gallon, and 47 percent at $5.00 per gallon. Still a majority (53%) said they would not consider alternative modes at any price.

The response to gas prices is broken down by county in Chapter 6, Section 6.15 and there does not appear to be any major differences by county. It was also analyzed by gender, age, income and ethnicity. Interestingly, there does not appear to be a relationship between income and willingness to try alternative modes as gas prices increase, with those in the lower income categories responding similarly to those in higher income categories with the single exception of those with over $100,000 household income who are less likely to change (68% say they would not switch at any price). However, there is a relationship between age and responsiveness to gas prices with younger commuters being more willing to consider alternatives than older commuters when gas prices increase. The percentage that say they would not consider alternatives at any price starts at a low of eight percent for commuters 18 to 20 years old and increases to 43 percent for those in their 20's, 50 percent for those in their 30's, 55 percent for those in their 40's, and 67 percent for those in their 50's. It then drops slightly to 60 percent for those 60 or older.

By ethnicity, Caucasians and African Americans are less likely to change with the percentage unwilling to switch in the upper sixties for both of these ethnicities, while Hispanics and Asians are more likely to consider alternatives with the percent unwilling to switch at any price in the low forties for these two ethnicities.

Finally, women are slightly more amenable to alternatives as gas prices increase with 50 percent unwilling to switch at any price compared to 56 percent for men.

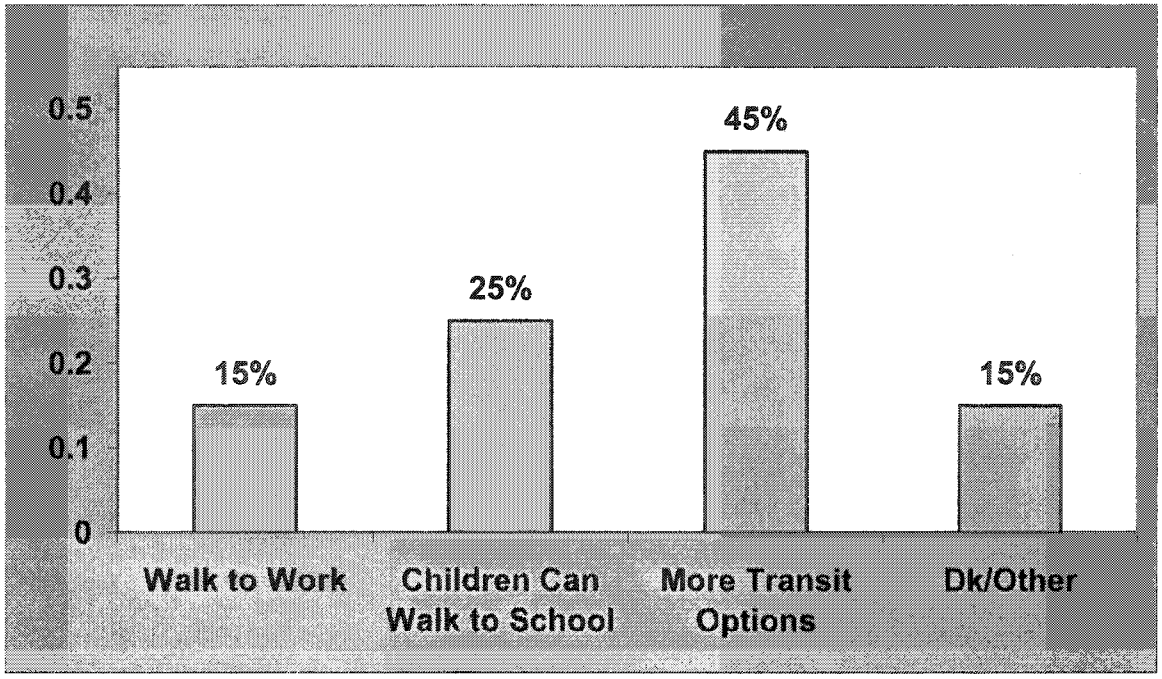
5.6 RELOCATION

Over half of all commuters (57%) have moved in the last five years and almost a quarter (23%) within the last two years, indicating a high degree of housing mobility. Respondents were asked if as a result of moving, their commute became longer, shorter, or stayed about the same. The results indicate no real change in overall commute length with 31 percent saying their commute became shorter, 28 percent saying it became longer and 41 percent saying it stayed the same. Ten percent indicated that their move was at least partially related to a job site location change.

Commuters whose trips became longer were asked why they moved further away, and the predominant response at 84 percent was because of better home value at the new, more distant location. Family reasons were a distant second at seven percent, and job changes were cited by three percent. The same question was asked of commuters who moved closer to work, and better home value was an important factor here too, but at a much lower 37 percent. The most frequently cited reason was to reduce commute time at 43 percent. Other important factors were reducing commuting costs (17%), reducing stress from commuting (10%), and to get better transit options or alternatives (5%). Family was also cited by two percent.

Commuters were also asked to indicate which of the following three factors would be most important to them when moving; the ability to walk to shops, the ability for children to walk to schools, or more transit options and a shorter commute. As indicated in the chart below, increased transit options was the most frequently mentioned factor at 45 percent. It was followed by the ability of children to walk to school, mentioned by 25 percent, and the ability to walk to shops, cited by 15 percent. An additional 15 percent either could not answer or said other factors were more important.

FIGURE 5.7: FACTORS PEOPLE MIGHT CONSIDER WHEN RELOCATING



6. COUNTY COMPARISONS

6.1 INTRODUCTION

Each year since 1990 more than 500 interviews were completed with commuters residing in each of the five counties, including Los Angeles, Orange, Riverside, San Bernardino and Ventura. Beginning with the 1995 State of the Commute, 300 interviews were also completed in Imperial County.

The minimum sample size by county for commuters that work 35 or more hours per week outside the home is 500 for the five larger population counties and 290 for Imperial County[27]. A sample size of 500 provides an acceptably accurate estimate (sampling error is ± 4.4% at a 95% confidence level) to allow for county comparisons.

Number of Surveys Completed by Home County:			
	35+ Hours Outside	35 Hours At Home	Total
Los Angeles	504	35	539
Orange	510	29	539
Riverisde	511	28	539
San Bernardino	516	23	539
Ventura	509	30	539
Imperial	294	11	305
Total	2,844	156	3,000

The regional profile detailed in the first five chapters of this report focuses on the region as a whole. This chapter highlights the key county differences and trends for the level of traffic congestion, travel time, trip distance, alternative travel mode usage, participation in employer transportation programs, and usage for freeway facilities.

[27] Surveys also include a limited number of at home workers bringing the total sample size by county to 539 for the larger population counties and 300 for Imperial County.

6.2 TRAVEL MODE

Primary travel mode by home county for each survey year since 1993 is provided in Table 6.1.

The drive alone rate is lowest in Los Angeles County, as it has been in each of the previous four studies going back to 1993. Los Angeles County is followed in ascending order by Ventura (78%), Riverside (79%), San Bernardino (80%), Orange (82%) and Imperial Counties (83%). Overall, the results are consistent with 1998 findings with the exception of Riverside County where the drive alone rate dropped from 83 percent to 79 percent. All other changes were one to two percent and within the range of highs and lows of the previous four studies. There are no significant trends towards lower or higher drive alone rates in any of the counties over the period of 1994 to 2005.

Usage of alternative modes is relatively consistent across counties with two key exceptions. The carpool rate is two to five percentage points above the average (12%) in Riverside (17%), San Bernardino (15%), and Ventura (14%) Counties. Riverside and San Bernardino are the largest Counties geographically, have the longest commutes, and also the highest inter-county travel patterns which would provide stronger motivation for carpooling. Ventura County is geographically smaller but is still third in trip length. The relationship between trip length and carpooling is supported by fact that the order of counties from longest to shortest trip length is the same order as counties with the highest to lowest level of carpooling.

The other key difference is that use of public transit (bus and Metrorail) in Los Angeles County (9%) is three percent higher than the regional average, and the other five counties taken as a whole are three percent below the average.

TABLE 6.1

PRIMARY TRAVEL MODE BY HOME COUNTY

	Los Angeles					Orange					Riverside					San Bernardino					Ventura					Imperial			
	93'	95'	97'	98'	05'	93'	95'	97'	98'	05'	93'	95'	97'	98'	05'	93'	95'	97'	98'	05'	93'	95'	97'	98'	05'	95'	97'	98'	05'
Drive Alone (#)	418	389	396	406	1208	433	417	426	421	448	419	406	421	436	194	432	414	416	414	218	428	403	415	418	113	254	239	254	15
(%)	80	74	75	77	75	83	79	81	80	82	80	77	80	83	79	82	79	79	79	80	82	77	79	79	78	85	79	85	83
Carpool	73	79	76	73	189	74	86	60	64	53	84	84	84	74	41	68	85	90	86	41	78	86	83	83	20	37	49	34	2
(%)	14	15	14	14	12	14	16	11	12	10	16	16	16	14	17	13	16	17	16	15	15	16	16	16	14	12	16	11	11
Vanpool	7	5	6	5	14	2	2	6	6	0	10	10	4	4	2	2	2	4	1	0	4	13	11	7	1	1	3	4	0
(%)	1	1	1	1	1	0	0	1	1	0	2	2	1	1	1	0	0	1	0	0	1	3	2	1	1	0	1	1	0
Bicycle	4	2	2	2	6	1	3	5	6	5	1	5	1	2	1	2	3	4	1	1	4	10	6	5	2	1	1	1	0
(%)	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	1	0	0	1	2	1	1	1	0	0	0	0
Motorcycle	1	1	8	1	2	3	1	0	0	4	5	1	1	2	0	1	1	2	1	0	0	2	2	1	1	0	0	0	0
(%)	0	0	2	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Public Bus	14	35	24	39	140	9	9	15	16	27	4	11	7	3	6	6	9	2	10	6	3	7	5	7	3	1	3	4	5
(%)	3	7	5	6	9	2	2	3	3	5	1	2	1	1	2	1	2	0	2	2	0	1	1	1	2	0	1	1	6
Commuter Rail	1	4	3	5	39	0	3	4	1	4	0	7	1	2	1	5	8	2	5	1	3	0	0	3	1	0	0	0	0
(%)	0	1	1	1	2	0	1	1	0	1	0	1	0	0	0	1	2	0	1	0	0	0	0	1	1	0	0	0	0
Private Bus	0	1	0	1	11	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	2	2	0	1	1	0	0	1	0
(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Walk or Jog	8	11	10	5	4	4	5	9	10	5	6	2	5	3	2	9	4	6	7	2	5	2	4	1	3	5	6	2	0
(%)	1	2	2	1	0	1	1	2	2	1	1	0	1	1	1	2	1	1	1	1	1	1	1	0	2	2	2	1	0
Base	517	525	525	525	504	517	525	525	525	510	518	525	525	525	511	518	525	525	525	516	520	525	525	509	509	300	300	300	294

6.3 TRIP DISTANCE

The average one-way trip distance reported by commuters can be found by county in Table 6.2 from 1991 to 2005[28].

Trip distances reported in 2005 are higher than those reported for 1998 for all counties. Average trip distance is longest for Riverside and San Bernardino County commuters, and shortest for Orange and Imperial County commuters.

TABLE 6.2

COMMUTE DISTANCE IN MILES BY HOME COUNTY

Home County	1991	1992	1993	1995	1997	1998	2005
Los Angeles	15.8	13.3	15.3	14.6	14.6	15.3	18.4
Orange	14.9	14.0	15.8	15.7	14.2	16.1	16.7
Riverside	20.9	22.8	22.2	24.1	21.0	21.6	25.1
San Bernardino	20.4	20.0	21.3	25.0	22.4	21.3	23.3
Ventura	17.7	15.4	16.2	17.8	15.9	16.3	19.1
Imperial*	NA	NA	NA	11.8	12.1	14.5	16.8

*Imperial County was included for the first time in 1996 study.

6.4 TRAVEL TIME TO AND FROM WORK

The average travel time to and from work for commuters by county over the last seven surveys is shown in Tables 6.3 and 6.4.

Similar to previous years, and in line with reported travel distances, Imperial and Orange Counties have the shortest total travel times at 62 and 79 minutes, while Riverside and San Bernardino Counties have the longest commute times at 101 and 102 minutes.

Commute times both to and from work have increased from 1998 to 2005 across all counties[29]. As in previous years, the commute time home is longer than the commute to work. In 1998 this was true for all but Imperial County, and in 2005 all counties report a longer average commute time going home than going to work.

[28] Trip length reported in previous years excluded respondents that indicated that they made a stop on the way to work. In 2005, stops on the way to and from work were not covered in the survey and it is likely that average trip distance will be higher if stops are not in a direct line between their home and work.

[29] As noted relative to trip distance, in previous years commuters who had stops on the way to and from work were excluded from the average trip time calculations. In 2005, stops on the way to and from work were not addressed in the survey, and thus the average trip length times include stops.

TABLE 6.3

COMMUTING TIME FOR TRIP TO WORK BY HOME COUNTY							
Home County	**1991**	**1992**	**1993**	**1995**	**1997**	**1998**	**2005**
Los Angeles	37 minutes	33 minutes	30 minutes	33 minutes	31 minutes	34 minutes	43 minutes
Orange	32	29	30	30	31	33	37
Riverside	38	37	36	38	36	37	46
San Bernardino	35	36	36	38	37	35	43
Ventura	28	26	28	28	26	27	38
Imperial*	NA	NA	NA	20	23	24	29

*Imperial County was included for the first time in 1996 study.

TABLE 6.4

COMMUTING TIME FOR TRIP HOME BY HOME COUNTY							
Home County	**1991**	**1992**	**1993**	**1995**	**1997**	**1998**	**2005**
Los Angeles	42 minutes	36 minutes	34 minutes	36 minutes	38 minutes	41 minutes	54 minutes
Orange	35	34	38	37	34	41	42
Riverside	41	43	43	46	40	38	55
San Bernardino	42	39	42	47	39	41	59
Ventura	32	30	31	32	30	33	43
Imperial*	NA	NA	NA	21	24	23	33

*Imperial County was included for the first time in 1996 study.

In addition to reporting longer commute times for 2005 than for 1998, a majority in four out of the six counties (all but Imperial – 33%, and Orange – 49%) believe that their commute time is now longer than it was one year ago. In all cases, including Imperial and Orange Counties, the percentage that believe their commute is getting longer has increased significantly between 1998 and 2005. The percentages of commuters who think their commute now takes longer than it did one year ago by county are:

Riverside	63%
San Bernardino	57
Los Angeles	54
Ventura	54
Orange	49
Imperial	33

6.5 FREEWAY USAGE

Table 6.5 reports the historical share of commuters by home-county who use a freeway as part of their commute. The freeway usage rate has increased significantly for Riverside, San Bernardino and Imperial Counties between 1998 and 2005 while holding close to constant in Los Angeles, Orange and Ventura Counties.

TABLE 6.5

FREEWAY USAGE BY HOME COUNTY

Home County	1991	1992	1993	1995	1997	1998	2005
Los Angeles	53%	56%	54%	59%	54%	62%	62%
Orange	51	53	57	63	55	62	61
Riverside	56	62	59	63	56	59	65
San Bernardino	51	61	54	61	57	54	67
Ventura	63	62	64	63	61	61	63
Imperial*	NA	NA	NA	37	38	36	47

*Imperial County was included for the first time in 1996 study.

6.6 HIGH OCCUPANCY VEHICLE LANES

Commuters who travel on a freeway during their commute were asked whether their freeway had a special commuter lane (HOV lane) reserved for carpools, vanpools, or buses. Those that indicated that a carpool lane was available and indicated that they pooled to work, were also asked if they used the available HOV lanes last week on the way to work. Most counties reflect a modest increase in the availability of HOV lanes (Los Angeles, Riverside, San Bernardino and Ventura Counties), while Orange and Imperial Counties indicated a slight decline in the perceived availability of HOV lanes.

Overall, 72 percent of those that are poolers and have an HOV lane available on their commute to work actually use the lanes. It should be noted that although there may be an HOV lane on one of the freeways used to commute to work, it is not always possible, even for eligible carpools, to get in and out of the lane as needed when they commute on that freeway. The percentages HOV lane availability and usage by eligible poolers is broken down by home county as follows:

Availability and Use of HOV Lanes		
County	HOV Available	USE HOV Lane
Los Angeles	61%	69%
Orange	71	72
Riverisde	47	74
San Bernardino	44	88
Ventura	25	88
Imperial	11	0

6.7 PARKING

Respondents were asked if they had to pay for parking at their work site. As shown below less than 10 percent of commuters have to pay for parking, and Los Angeles County is the only county where more than five percent of the commuters that work there have to pay for parking.

Do You Have to Pay for Parking	
County	Pay for Parking
Los Angeles	8%
Orange	2
Riverisde	2
San Bernardino	2
Ventura	2
Imperial	5

6.8 PARK AND RIDE LOT USAGE

Commuters who live in Los Angeles County are the most likely to use park and ride lots in their commutes with 3.9 percent indicating that they used a park and ride lot in the week prior to the survey interview. Ventura and San Bernardino Counties followed at 2.8 percent and 2.6 percent. Orange and Riverside were somewhat lower at 2.0 percent and 1.6 percent. These percentages are all up slightly from 1998 with the exception of Riverside County which declined slightly.

6.9 WORK COUNTY LOCATION

Table 6.6 presents work county locations by home county. The results for 2005 are within three percent of 1998 results for all work and home county combinations with two exceptions; Ventura and Riverside Counties. In Ventura County the percentage of commuters who live and work in the County has dropped from 80 to 74 percent, and the percentage commuting from Ventura to Los Angeles County has increased by five percent. In Riverside County the percentage commuting from Riverside to San Bernardino County has increased from eight to 12 percent.

TABLE 6.6

HOME COUNTY BY WORK COUNTY

	Home County					
Work County	**Los Angeles**	**Orange**	**Riverside**	**San Bernardino**	**Ventura**	**Imperial**
Los Angeles	88%	14%	7%	17%	23%	0%
Orange	6	82	12	6	0	0
Riverside	0	2	65	10	0	0
San Bernardino	3	1	12	66	0	0
Ventura	2	0	0	0	74	0
Imperial	0	0	1	0	0	100
San Diego	0	0	4	0	0	0
Other	0	0	0	0	3	0

Note: Percentages add to less than 100% in some cases due to rounding.

6.10 EMPLOYER-PROVIDED TRANSPORTATION INFORMATION AND SERVICES

Respondents were asked whether they were aware of their employer offering specific information or services to encourage employees to carpool, vanpool, take the bus, walk or bicycle to work. Levels of awareness of these programs by work county are illustrated in Table 6.7.

In 2005 survey participants were asked for the first time about awareness of a $2 per day incentive program for ridesharing. As shown below results are relatively consistent across counties in the three to five percent range, with the exception of Imperial County where there was no awareness of this program.

Aware of $2/Day Incentive	
County	Yes
Los Angeles	4%
Orange	5
Riverisde	5
San Bernardino	5
Ventura	3
Imperial	0

TABLE 6.7

AWARENESS OF EMPLOYER TRANSPORTATION PROGRAMS BY WORK COUNTY

	Los Angeles					Orange					Riverside					San Bernardino					Ventura					Imperial			
	94'	96'	98'	99'	05'	94'	96'	98'	99'	05'	94'	96'	98'	99'	05'	94'	96'	98'	99'	05'	94'	96'	98'	99'	05'	96'	98'	99'	05'
Assists in Carpool & Vanpool Formation	40%	42%	33%	32%	22%	32%	35%	26%	25%	14%	33%	34%	21%	25%	15%	32%	31%	21%	22%	18%	34%	38%	24%	23%	18%	8%	6%	14%	5%
Guarantees a Ride Home in Case of an Emergency	41	43	40	35	24	38	40	39	34	24	48	45	41	40	26	40	41	39	37	26	49	47	36	42	24	38	43	39	20
Subsidizes Ridesharing	22	18	11	11	9	22	20	11	8	7	16	17	8	4	8	15	11	6	6	8	15	8	9	6	4	2	2	2	5
Sells Bus/Rail Passes	13	13	9	7	8	7	7	7	7	9	6	8	5	3	3	6	8	5	3	4	4	3	3	2	3	2	1	1	0

6.11 TELEWORK

Commuters who work full-time outside the home were asked whether they had the opportunity to work at home instead of going to their regular work site. The opportunity to telework has increased in all counties except Orange County where it dropped one percent from 12 percent in 1998. Los Angeles County now represents the highest level of opportunity to telework at 12 percent with all other counties in the nine to 11 percent range.

Commuters were also asked how many days per month that they work at home if they have that opportunity available to them. Overall 76 percent say they work at home at least one day per month. When breaking this out to the county level, sample sizes are too small to identify statistically significant differences. Thus results showing the percentage of workers that currently work at home are directional only.

TABLE 6.8

OPPORTUNITY TO WORK AT HOME AND CURRENTLY WORK AT HOME BY WORK COUNTY

	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial*
Opportunity to Work At Home	14%	11%	10%	10%	9%	10%
Currently Work At Home**	79	71	81	71	58	100

* Sample is too small for statistical reliability ** Based on group with opportunity

6.12 USE OF 1-800-COMMUTE and COMMUTESMART.INFO

Commuters were asked if they have contacted 1-800-COMMUTE or visited the COMMUTESMART.INFO website. The responses to these questions are detailed in Tables 6.10 (by home county) and 6.11 (by work county) that follow. Usage of 1-800-COMMUTE by home county is slightly higher in Los Angeles and San Bernardino Counties at eight percent. Ventura, Riverside and Orange Counties follow at six, five and four percent respectively.

Commuters were asked about visiting the website, COMMUTESMART.INFO for the first time in 2005. With the exception of Imperial County (0%), all counties were in the range of two to five percent.

Both 1-800-COMMUTE and COMMUTESMART.INFO were analyzed on a home county and work county basis, as they are likely to be accessed at either location. The results were very similar with no variance of more than two percent for any county across both sources of information.

TABLE 6.9

USE OF 1-800-COMMUTE and COMMUTESMART.INFO by HOME COUNTY

	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
Have Called 1-800-COMMUTE	8%	4%	5%	8%	6%	0%
Have Visited COMMUTESMART.INFO	4%	3%	2%	5%	2%	0%

TABLE 6.10

USE OF 1-800-COMMUTE and COMMUTESMART.INFO by WORK COUNTY

	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
Have Called 1-800-COMMUTE	9%	5%	4%	6%	4%	0%
Have Visited COMMUTESMART.INFO	3%	5%	3%	3%	2%	0%

6.13 PERCEPTIONS OF TRAFFIC

All survey respondents were asked to rate traffic on streets and freeways. In the 1998 study this question was asked separately for surface streets and freeways. Comparing 2005 results to 1998, the percentage of commuters that believe that conditions are always or more often or not bad is higher than it was for surface streets in 1998 across all counties. In Imperial County the percentage is only slightly higher. In the other counties the increase in negative perceptions has grown significantly.

When comparing 2005 results to freeway conditions in 1998 the results vary by county. Perceptions are much worse in Riverside and Ventura Counties (up 14%), and in Los Angeles County (up 9%). In Orange (-1%) and San Bernardino (1%) the results are essentially unchanged. In Imperial County the percentage indicating bad conditions increased by seven percent, but Imperial County

remains significantly lower than all other counties with a combined 16 percent saying conditions are always or more often bad which compares to 43 percent for the entire region.

TABLE 6.11

PERCEPTIONS OF TRAFFIC ON STREETS AND FREEWAYS BY HOME COUNTY

	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
Always Bad	28%	15%	25%	20%	18%	5%
More Often Bad	17	22	22	21	19	11
Mixed	30	34	28	31	30	32
More Often Good	13	17	15	17	22	21
Always Good	12	12	11	11	11	32

All survey respondents were also asked if compared to a year ago, the flow of traffic on the streets and freeways they travel are worse, the same, or better. In 1998 this questions was asked independently for surface streets and freeways.

In 2005 a majority of every county reported that conditions were worse than a year ago and only nine percent on average said that they were better. Perceptions worsened for every county in comparison with 1998's ratings for both freeway and surface street traffic.

Comparing the percentages for both streets and freeways for 2005 to the freeway percentages for 1998 (which were more negative than the surface street percentages) shows significant increases in the percentage saying conditions are worse for each county. The increase in the percentage of commuters saying conditions are worse is 20 percent for Riverside County, 13 percent for Orange and Imperial Counties, 10 percent for San Bernardino and Ventura Counties, and nine percent for Los Angeles County.

TABLE 6.12

COMPARISON OF CURRENT STREET AND FREEWAY TRAFFIC TO ONE YEAR AGO BY HOME COUNTY

Traffic Now Is:	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
Better than Year Ago	10%	10%	6%	8%	7%	11%
Same as Year Ago	39	39	24	30	37	44
Worse than Year Ago	52	52	70	63	56	44

6.14 COMMUTE SATISFACTION

All survey respondents were asked to rate their overall satisfaction with their commute on a one to nine point scale, where one represents the greatest level of dissatisfaction, and nine the greatest level of satisfaction. Average commute satisfaction ratings have declined significantly across all counties with the largest drops in Riverside County (1.1 points), and San Bernardino County (1.0 point). Riverside and San Bernardino are also tied with Los Angeles County for the lowest overall satisfaction rating of 5.5. Imperial County declined 0.5 points, and continues to be the county that is most satisfied with their commute at an average of 6.8, more than a full point above the average of 5.6.

TABLE 6.13

OVERALL COMMUTE SATISFACTION RATING BY HOME COUNTY

Home County	1991	1992	1993	1995	1997	1998	2005
Los Angeles	5.9	6.5	6.6	6.5	6.7	6.4	5.5
Orange	6.0	6.2	6.4	6.6	6.6	6.3	5.8
Riverside	6.5	6.2	6.5	6.6	6.8	6.5	5.5
San Bernardino	6.4	6.3	6.8	6.5	6.8	6.5	5.6
Ventura	6.5	6.3	6.9	6.9	6.8	6.8	5.9
Imperial*	NA	NA	NA	7.3	7.4	7.5	6.8

*Imperial County was included for the first time in 1996 study.

6.15 IMPACT OF GAS PRICES

All commuters were asked if gas prices continued to rise, at what price they would consider ridesharing or using public transit to get to work one or more days per week. The results are presented below by county in cumulative format that include the percent that would consider changing at that particular price, plus all lower prices. Although one might hypothesize that those in outlying counties that tend to have longer commutes might be more likely to change their behavior based on the price of gas, there are no clear patterns in the response to this question based on home county.

	At What Gas Price Would Consider Ridesharing or Pubic Transit			
County	$4.00	$4.50	$5.00	Would not Consider
Los Angeles	31%	38%	49%	51%
Orange	25	30	44	56
Riverisde	30	35	44	56
San Bernardino	32	39	47	53
Ventura	34	38	44	56
Imperial	39	39	46	54

6.16 COMMUTER CONCERNS

Respondents were asked which factors they consider when choosing their means of transportation to work. As in years past, the most frequent response by far was convenience/flexibility. The top two factors are in the same order as in 1998. Travel time to work, the second factor, has increased by three to six percentage points in all but two counties; Orange County (down 1%), and Imperial (unchanged). As might be expected with the increases in fuel prices, commuting costs as a factor in mode selection has climbed more than any other consideration from position number eight in 1998 to number four in 2005.

TABLE 6.14

TOP 10 COMMUTER CONCERNS BY HOME COUNTY						
	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
1. Convenience / Flexibility	27%	32%	24%	24%	31%	26%
2. Travel Time to Work	17	16	18	21	20	14
3. No Access to Other Modes	15	18	22	19	18	24
4. Commuting Costs	16	11	14	17	11	11
5. Safety	13	11	13	12	12	5
6. Not Being Dependent	12	13	11	13	12	15
7. Privacy	11	14	8	12	9	9
8. Comfort / Relaxation	11	9	9	11	10	9
9. Reliability / Depandability	9	13	9	11	7	10
10. Having Vehicle at Work	8	9	10	7	13	10

6.17 SUMMARY OF MAJOR CHARACTERISTICS BY COUNTY

LOS ANGELES COUNTY

- Primary drive alone rate is 75 percent, the lowest of all six counties.
- Highest use of alternative modes, particularly bus.
- Average one-way commute is 18.4 miles up from 15.3 in 1998.
- Average commute time to work is 43 minutes up from 34 minutes in 1998 and 31 minutes in 1997.
- Freeway usage is 62 percent, unchanged from 1998.
- Second highest availability of HOV lanes during commute (61%), up from 56 percent in 1998, but second lowest use of available HOV lanes (69%).
- The highest percentage of commuters that have to pay for parking at eight percent.
- The second highest percentage of commuters that work in the same county as they live at 88 percent, but down two percent from 1998.
- Tied with San Bernardino County for highest usage of 1-800-COMMUTE at eight percent.

- Tied with Riverside County for the lowest overall commute satisfaction with an average of 5.5, down from 6.4 in 1998. Also the highest percentage saying that the flow on surface streets and freeways is always bad at 28 percent.

- Most likely county to consider alternatives as gas prices increase to between $4 and $5 per gallon (49%)

ORANGE COUNTY

- Primary drive alone rate is 82 percent, two percent higher than 1998.

- Average Commute distance is 16.7 miles, the shortest in the region, but up slightly from 16.1 in 1998.

- Average commute time to work is 37 minutes up from 33 in 1998 and 31 in 1997.

- Freeway usage is essentially unchanged at 61 percent compared to 62 percent in 1998.

- Highest availability of HOV lanes in region at 71 percent and also 72 percent usage when available.

- One of only two counties to increase the percentage of commuters that work in the same county they live in from 79 percent in 1998 to 82 percent in 2005.

- Overall satisfaction with commute averages 5.8, down from 6.3 in 1998.

RIVERSIDE COUNTY

- Primary drive alone rate is 79 percent, four percent lower than 1998

- Average Commute distance is 25.1 miles the longest in the region and up from 21.6 in 1998.

- Average commute time to work is 46 minutes, the longest in the region and up from 37 minutes in 1998.

- Second highest freeway usage at 65 percent up from 59 percent in 1998.

- Forty-seven percent HOV lane availability, and 74 percent usage.

- The highest percentage of workers that work outside the county where they live at 35 percent, up from 32 percent in 1998.

- Tied with Los Angeles County for lowest average overall commute satisfaction at 5.5, down from 6.5 in 1998 reflecting the biggest decline in the region.

- Second most likely county to say flow on surface streets and freeways is always bad and most likely to say that conditions are worse than a year ago (70%).

SAN BERNARDINO COUNTY

- Primary drive alone rate is 80 percent, up one percent from 1998.

- Average Commute distance is 23.3 miles up from 21.3 in 1998.

- Average commute time to work is 38 minutes up from 27 in 1998.

- Highest freeway usage at 67 percent, up from 54 percent in 1998.

- Forty-four percent HOV lane availability, but tied for highest usage at 88 percent.

- The second highest number of workers who commute to another county to work at 34 percent, up from 32 percent in 1998.

- Tied with Los Angeles County for highest usage of 1-800-COMMUTE at eight percent, and highest usage of COMMUTESMART.INFO in the region at five percent.

- Third lowest overall average commute satisfaction rating at 5.6, down from 6.5 in 1998.

- Third highest county to say that flow on surface streets and freeways is always bad (20%), and second highest proportion of commuters to say conditions are worse than a year ago (63%).

VENTURA COUNTY

- Primary drive alone rate is 78 percent, down one percent from 1998.

- Average Commute distance is 19.1 miles up from 16.3 in 1998.

- Average commute time to work is 38 minutes up from 27 in 1998.
- Freeway usage is 63 percent, essentially the same as 1998's 61 percent.
- Second lowest HOV lane availability (25%), but tied for second highest usage rate at 88 percent.
- Twenty-six percent of county residents work outside the county, up six percent from 1998.
- Average overall commute satisfaction rating of 5.9, down from 6.8 in 1998.

IMPERIAL COUNTY

- Primary drive alone rate is 83 percent the highest of all six counties.
- Lowest use of alternative transit.
- Average Commute distance is 16.8 miles up from 14.5 in 1998.
- Average commute time to work is 29 minutes, the shortest commute in the region, but up from 24 minutes in 1998.
- By far the lowest freeway usage in the region at 47 percent, but up from 36 percent in 1998.
- The lowest HOV lane availability in the region at 11 percent and zero percent usage.
- The highest level of commuters that work in the same county as they live at 100 percent, and one of only two counties where the percentage working in-county increased from 1998.
- The highest overall commute satisfaction rating of 6.8, nine-tenths of a point higher than any other county, but down seven tenths of a point from 7.5 in 1998.
- Least likely to say flow on surface streets and freeways is always bad (5%), most likely to say traffic conditions better than a year ago (11%), and least likely to say they are worse (44%).

7. SURVEY OF AT-HOME WORKERS

7.1 INTRODUCTION

As an effort to collect additional relevant data for transportation planning purposes, especially for providing up-to-date inputs to the regional transportation model, at-home workers were surveyed as part of the 2005 State of the Commute study. At-home workers are defined as workers that work at least 35 hours per week, but do not work outside the home at least 35 hours per week. As such they include people who work exclusively at home, and workers that split their workload between home and an outside location but spend less than 35 hours per week at the outside location. They include both self-employed individuals and workers that work for an outside employer. The same weighting methodology was employed for these workers as those who work 35 or more hours per week outside the home, but was scaled back to the total number of surveys of qualified respondents which is 156 (vs. 2,884 for those working 35 or more hours outside the home). It should be noted that with a total sample size of 156, cross-tabulations of results produce very small sample sizes which are subject to a high level of variability.

7.2 DEMOGRAPHIC CHARACTERISTICS: AT-HOME WORKERS VS. COMMUTERS

In 2005 5.2 percent of all workers reported that they are at-home workers. The percentage is relatively even, ranging from a low of 2.0 percent for Ventura County to a high of 6.5 percent in Los Angeles County (see Table 7.1). At 67 percent, two-thirds of at home workers are self employed compared to 14 percent for regular commuters (see table 7.2). By gender, at-home workers are slightly more likely to be women than men (56% vs. 44%) (see Table 7.3). Compared to the commuter population, more at-home workers are in the older age groups of 50-59 and 60+ while fewer are in the younger age group of 20-29 (see Table 7.4). Although, there are fewer at-home workers in the lowest income category, under $20,000, there does not appear to be any clear relationship between working at home and income (see Table 7.5). As in 1998, there is a higher proportion of Caucasian at-home workers than Caucasian general commuters (64% and 35% respectively), and a lower proportion of Hispanic at-home workers than Hispanic general commuters (26% and 47% respectively).

TABLE 7.1

PERCENT OF AT-HOME WORKERS BY HOME COUNTY

Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial
6.5%	5.4%	5.2%	4.3%	2.0%	3.6%

TABLE 7.2

EMPLOYMENT STATUS: AT-HOME WORKERS VS. COMMUTERS

	At-Home Workers	Commuters
Self-employed	67%	14%
Work with Employer	33	88
Total	**100**	**100**

TABLE 7.3

GENDER: AT-HOME WORKERS VS. COMMUTERS

	At-Home Workers	Commuters
Female	56%	48%
Male	44	52
Total	**100**	**100**

TABLE 7.4

AGE: AT-HOME WORKERS VS. COMMUTERS

Age in Years	At-home Workers	Commuters
Less than 20	3%	2%
20-29	11	22
30-39	26	27
40-49	26	25
50-59	24	19
60+	9	5
Total	**100**	**100**

TABLE 7.5

HOUSEHOLD INCOME: AT-HOME WORKERS VS. COMMUTERS

Household Income	At-home Workers	Commuters
Under $20,000	7%	18%
$20,000 to $34,999	13	17
$35,000 to $49,999	22	15
$50,000 to $64,999	14	11
$65,000 to $79,999	11	9
$80,000 to $99,000	9	10
$100,000 to over	24	20
Total	**100**	**100**

TABLE 7.6

ETHNIC GROUP: AT-HOME WORKERS VS. COMMUTERS

Ethnic Group	At-home Workers	Commuters
White, not Hispanic	64%	35%
African-American	3	7
Hispanic	26	47
Asian	6	11
Other	1	1
Total	**100**	**100**

APPENDIX A

QUESTIONNAIRE WITH SKIP PATTERNS

(08:46:46 29 SEP 2005)

QUESTIONNAIRE = SOC05
VERSION : 3.4

```
*****************************
*       CODE BOX            *
*                           *
*  LT = LESS THAN    ( < )  *
*  GT = GREATER THAN ( > )  *
*  EQ = EQUALS       ( = )  *
*  NE = NOT EQUAL TO ( # )  *
*****************************
```

```
*****************************************
*                                       *
*  _____ APPROVED AS IS                 *
*                                       *
*  _____ APPROVED WITH CHANGES AS NOTED *
*                                       *
*  _____ SEND ANOTHER DRAFT             *
*                                       *
*                                       *
*  ___________________________________  *
*              SIGNATURE                *
*****************************************
```

GOOD MORNING/AFTERNOON/EVENING, THIS IS ____ _____ WITH SCR CALLING ON BEHALF OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS. WE ARE NOT SELLING ANYTHING. WE ARE JUST TALKING TO PEOPLE ABOUT THEIR COMMUTE SO TRANSPORTATION IN SOUTHERN CALIFORNIA CAN BE IMPROVED. I'D LIKE TO ASK YOU A FEW QUESTIONS AND IT WILL TAKE ABOUT 10 MINUTES. CAN YOU HELP US OUT ?

****

1. IN WHAT COUNTY DO YOU LIVE ?

   1. LOS ANGELES
   2. ORANGE
   3. RIVERSIDE
   4. SAN BERNARDINO
   5. VENTURA
   6. IMPERIAL
   7. OTHER
   8. REFUSED/DON'T KNOW

(PROMPT ONLY IF NO ANSWER)

SKIP AFTER Q1 IF Q<1> GE 7 THEN GO END

****

2. HOW MANY PEOPLE 18 OR OLDER WORKING 35 HOURS OR MORE PER WEEK, LIVE IN YOUR HOUSEHOLD ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10
11. 11
12. NONE
13. REFUSED/DON'T KNOW
14. OTHER

OTHER LINE = 200

(DON'T READ PRECODED RESPONSES)

SKIP AFTER Q2 IF Q<2> EQ 12 THEN GO END
SKIP AFTER Q2 IF Q<2> EQ 13 THEN GO END
SKIP AFTER Q2 IF Q<2> NE 1 THEN GO 4

****

3. IS THAT YOU ?

1. YES
2. NO

SKIP AFTER Q3 IF Q<3> EQ 1 THEN GO 9
SKIP AFTER Q3 IF Q<3> EQ 2 THEN GO 5

****

4. OF THE FULL-TIME WORKERS 18 OR OLDER, I NEED TO SPEAK WITH THE PERSON WITH THE MOST RECENT BIRTHDAY. WOULD THAT BE YOU ?

1. YES
2. NO
3. MALE - QUESTION NOT ASKED

(DON'T READ PRECODED RESPONSES)

SKIP AFTER Q4 IF Q<4> EQ 1 THEN GO 9
SKIP AFTER Q4 IF Q<4> EQ 3 THEN GO 9

****

5. MAY I SPEAK TO THAT PERSON NOW ?

1. YES
2. NO

SKIP AFTER Q5 IF Q<5> EQ 1 THEN GO 9

****

6. MAY I GET THEIR NAME TO CALL THEM BACK LATER ?

1. YES
2. NO

SKIP AFTER Q6 IF Q<6> EQ 2 THEN GO END

****

7. WHAT IS THEIR NAME ?

****

8. WHEN IS A GOOD TIME TO CALL THEM BACK ?

*** SURVEYOR NOTE: TERMINATE AFTER THIS QUESTION ***

SKIP AFTER Q8 GO END

****

9. ARE YOU SELF-EMPLOYED OR DO YOU WORK WITH AN EMPLOYER ?

1. SELF-EMPLOYED
2. WORK WITH EMPLOYER

(DON'T READ PRECODED RESPONSES)

****

10. DO YOU WORK 35 OR MORE HOURS PER WEEK AT A LOCATION
(OR LOCATIONS) OUTSIDE THE HOME ?

1. YES
2. NO

SKIP AFTER Q10 IF Q<10> EQ 1 THEN GO 12
SKIP AFTER Q10 IF Q<9> EQ 2
AND Q<10> EQ 2 THEN GO 84

****

11. HOW MANY DAYS PER WEEK DO YOU WORK AT HOME ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. REFUSED

SKIP AFTER Q11 GO 90

****

12. HOW MANY DAYS DO YOU USUALLY TRAVEL TO WORK IN A WEEK ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. NONE

***SURVEYOR'S NOTE: IF RESPONSE IS NONE ASK, "MAY I SPEAK WITH SOMEONE WHO WORKS OUTSIDE OF THE HOME AT LEAST 35 HOURS PER WEEK AND HAS THE MOST RECENT BIRTHDAY ? IF NO, TERMINATE

SKIP AFTER Q12 IF Q<12> EQ 8 THEN GO END

****

13. NOW I'M GOING TO ASK YOU ABOUT HOW YOU GET TO WORK IN A TYPICAL WEEK. IF YOU USE MORE THAN ONE WAY TO GET TO WORK ON THE SAME DAY, LIKE TAKING BOTH THE BUS AND THE TRAIN, PLEASE TELL ME ABOUT ONLY THE ONE MODE YOU USE FOR THE LONGEST PART OF THE TRIP BASED ON TIME.

HOW DO YOU USUALLY GET TO WORK ?

1. DRIVE ALONE
2. CARPOOL
3. VANPOOL
4. BUSPOOL (A PRIVATE BUS)
5. PUBLIC TRANSIT BUS OR METRO RAIL (RED/BLUE/GREEN/GOLD LINES)
6. METROLINK OR AMTRAK
7. MOTORCYCLE
8. BICYCLE
9. WALK
10. OTHER

OTHER LINE = 201

(PROMPT ONLY IF NO ANSWER)

****

14. DO YOU USE ANY OTHER WAY TO GET TO WORK ?

1. YES
2. NO

SKIP AFTER Q14 IF Q<14> EQ 2 THEN GO 25

****

15. HOW ELSE DO YOU GET TO WORK ?

1. DRIVE ALONE
2. CARPOOL
3. VANPOOL
4. BUSPOOL (A PRIVATE BUS)
5. PUBLIC TRANSIT BUS OR METRO RAIL (RED/BLUE/GREEN/GOLD LINES)
6. METROLINK OR AMTRAK
7. MOTORCYCLE
8. BICYCLE
9. WALK
10. OTHER

OTHER LINE = 202
(Multiple Response)

(PROMPT ONLY IF NO ANSWER)

****

16. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU DRIVE ALONE ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q16 IF Q<13> NE 1
AND Q<15> NE 1 THEN GO 17

****

17. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU CARPOOL ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q17 IF Q<13> NE 2
AND Q<15> NE 2 THEN GO 18

****

18. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU VANPOOL ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q18 IF Q<13> NE 3
AND Q<15> NE 3 THEN GO 19

****

19. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU TAKE A PRIVATE BUS OR BUSPOOL ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q19 IF Q<13> NE 4
AND Q<15> NE 4 THEN GO 20

****

20. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU TAKE A PUBLIC TRANSIT BUS OR METRO-RAIL?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q20 IF Q<13> NE 5
AND Q<15> NE 5 THEN GO 21

****

21. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU TAKE METROLINK OR AMTRAK?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q21 IF Q<13> NE 6
AND Q<15> NE 6 THEN GO 22

****

22. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU RIDE A MOTORCYCLE?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q22 IF Q<13> NE 7
AND Q<15> NE 7 THEN GO 23

****

23. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU RIDE A BICYCLE?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q23 IF Q<13> NE 8
AND Q<15> NE 8 THEN GO 24

****

24. OF THE <<COMMUTE.DAYS>> THAT YOU COMMUTE TO WORK IN A TYPICAL WORK WEEK, HOW MANY OF THESE DO YOU WALK OR JOG?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

SKIP BEFORE Q24 IF Q<13> NE 9
AND Q<15> NE 9 THEN GO 25

****

25. HOW LONG HAVE YOU BEEN <<DROP IN Q13/15 CAR/VAN/BUSPOOLING>> ?

1. LESS THAN 6 MONTHS
2. 6 MONTHS TO 1 YEAR
3. 2-3 YEARS
4. 4-5 YEARS
5. 6-10 YEARS
6. MORE THAN 10 YEARS
7. DON'T KNOW/REFUSED

SKIP BEFORE Q25 IF Q<13> NE 2
AND Q<13> NE 3
AND Q<13> NE 4
AND Q<15> NE 2
AND Q<15> NE 3
AND Q<15> NE 4 THEN GO 27

****

26. WITH WHOM DO YOU REGULARLY SHARE RIDES ?

1. HOUSEHOLD MEMBERS
2. NON-HOUSEHOLD RELATIVES
3. CO-WORKERS
4. FRIENDS, ACQUAINTANCES, NEIGHBORS
5. SOMEONE FROM A MATCHLIST/RIDEGUIDE

(Multiple Response)

****

27. HOW LONG HAVE YOU BEEN RIDING THE BUS OR METRORAIL ?

1. LESS THAN 6 MONTHS
2. 6 MONTHS TO 1 YEAR
3. 2-3 YEARS
4. 4-5 YEARS
5. 6-10 YEARS
6. MORE THAN 10 YEARS
7. DON'T KNOW/REFUSED

SKIP BEFORE Q27 IF Q<13> NE 5
AND Q<15> NE 5 THEN GO 28

****

28. HOW LONG HAVE YOU BEEN RIDING METROLINK OR AMTRAK ?

1. LESS THAN 6 MONTHS
2. 6 MONTHS TO 1 YEAR
3. 2-3 YEARS
4. 4-5 YEARS
5. 6-10 YEARS
6. MORE THAN 10 YEARS
7. DON'T KNOW/REFUSED

SKIP BEFORE Q28 IF Q<13> NE 6
AND Q<15> NE 6 THEN GO 29

****

29. HOW DID YOU GET TO WORK BEFORE YOU BEGAN TO <<MODE/RIDESHARE>> ?

1. DROVE ALONE
2. CARPOOLED
3. VANPOOLED
4. RODE THE BUS
5. TOOK THE TRAIN
6. TOOK PRIVATE BUS
7. BICYCLED
8. MOTORCYCLED
9. WALKED/JOGGED
10. DID NOT WORK
11. OTHER
12. DON'T KNOW-REFUSED

OTHER LINE = 203
(Multiple Response)

(PROMPT ONLY IF NO ANSWER)

SKIP BEFORE Q29 IF Q<13> NE 2
AND Q<13> NE 3
AND Q<13> NE 4
AND Q<13> NE 5
AND Q<13> NE 6
AND Q<15> NE 2
AND Q<15> NE 3
AND Q<15> NE 4
AND Q<15> NE 5
AND Q<15> NE 6 THEN GO 31

****

30. WHAT MOTIVATED YOU TO BEGIN TO <<MODE/RIDESHARE>> ?

1. CO-WORKER SUGGESTED IT
2. EMPLOYER/SUPERVISOR SUGGESTED
3. INCREASE IN GAS PRICES
4. CAN USE CARPOOL LANES
5. I WAS OFFERED INCENTIVES/PRIZES/BENEFITS
6. BETTER PARKING
7. ADVERTISING SUGGESTED IT
8. GOT TIRED OF DRIVING ALONE
9. FOUND SOMEONE LIVING AND WORKING CLOSE BY
10. SOMEBODY HELPED ME SET IT UP
11. SOMEBODY CALLED ME AND SUGGESTED IT
12. RIDESHARE WEEK
13. TO REDUCE POLLUTION/SMOG/HELP THE ENVIRONMENT
15. TO SAVE MONEY/GAS
16. GOT NEW OPTIONS/NEW BUS ROUTES/NEW TRAINS
17. OTHER
18. DON'T KNOW / REFUSED

OTHER LINE = 204
(Multiple Response)

(DON'T READ PRECODED RESPONSES)

****

31. AT SOME TIME IN THE PAST 12 MONTHS, HAVE YOU REGULARLY CARPOOLED, VANPOOLED, OR TAKEN A BUS OR TRAIN TO WORK ?

1. YES
2. NO
3. REFUSED/DON'T KNOW

*** SURVEYOR INSTRUCTION: IF ASKED, "REGULARLY" IS AT LEAST ONCE PER WEEK

(PROMPT ONLY IF NO ANSWER)

SKIP BEFORE Q31 IF Q<13> EQ 2 THEN GO 33
SKIP BEFORE Q31 IF Q<13> EQ 3 THEN GO 33
SKIP BEFORE Q31 IF Q<13> EQ 4 THEN GO 33
SKIP BEFORE Q31 IF Q<13> EQ 5 THEN GO 33
SKIP BEFORE Q31 IF Q<13> EQ 6 THEN GO 33
SKIP BEFORE Q31 IF Q<15> EQ 2 THEN GO 33
SKIP BEFORE Q31 IF Q<15> EQ 3 THEN GO 33
SKIP BEFORE Q31 IF Q<15> EQ 4 THEN GO 33
SKIP BEFORE Q31 IF Q<15> EQ 5 THEN GO 33
SKIP BEFORE Q31 IF Q<15> EQ 6 THEN GO 33
SKIP AFTER Q31 IF Q<31> GE 2 THEN GO 33

****

32. WHAT MADE YOU STOP ?

1. WORK SCHEDULE CHANGED
2. MOVED
3. COMPANY RELOCATED
4. CHANGED JOB/WORK SITE
5. OTHER RIDESHARERS QUIT
6. TOOK TOO MUCH TIME
7. TOO STRESSFUL
8. TOO MUCH MONEY
9. BUS ROUTE CHANGED
10. NEEDED VEHICLE AT/AFTER WORK
11. BECAME UNRELIABLE
12. GOT A CAR/CAR FIXED
13. DIDN'T GET ALONG W/OTHER RIDESHARERS
14. STOPPED GETTING MONEY FOR IT
15. GAS PRICE WENT DOWN
16. OTHER
17. DON'T KNOW / REFUSED

OTHER LINE = 205
(Multiple Response)

(DON'T READ PRECODED RESPONSES)

****

33. DURING THE LAST WEEK DID YOU USE A FREEWAY TO TRAVEL TO WORK ?

1. YES
2. NO
3. REFUSED/DON'T KNOW

SKIP AFTER Q33 IF Q<33> NE 1 THEN GO 36

****

34. IS THERE A SPECIAL CARPOOL LANE THAT CAN BE USED ONLY BY CARPOOLS, VANPOOLS OR BUSES ON THE FREEWAY THAT YOU USE TO TRAVEL TO OR FROM WORK (DOES NOT INCLUDE METERED ON-RAMPS) ?

1. YES
2. NO
3. DON'T KNOW/REFUSED

SKIP AFTER Q34 IF Q<34> NE 1 THEN GO 36

****

35. DURING LAST WEEK DID YOU USE THIS CARPOOL LANE WHEN GOING TO WORK ?

1. YES
2. NO
3. REFUSED/DON'T KNOW

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

36. DURING THE LAST WEEK DID YOU USE A PARK-AND-RIDE LOT WHEN YOU TRAVELED TO WORK ?

1. YES
2. NO
3. REFUSED/DON'T KNOW

(PROMPT ONLY IF NO ANSWER)

****

37. DURING YOUR TYPICAL COMMUTE, WOULD YOU SAY THE FLOW OF TRAFFIC ON THE STREETS AND FREEWAYS YOU TRAVEL IS . . . ?

    1. ALWAYS BAD
    2. MORE OFTEN BAD
    3. MIXED
    4. MORE OFTEN GOOD
    5. ALWAYS GOOD
    6. REFUSED/DON'T KNOW

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

38. COMPARED TO YOUR COMMUTE A YEAR AGO WOULD YOU SAY THE FLOW OF TRAFFIC ON THE STREETS AND FREEWAYS YOU TRAVEL IS . . . ?

    1. WORSE
    2. THE SAME
    3. OR BETTER
    4. DON'T KNOW
    5. REFUSED

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

39. ON A SCALE FROM "1" TO "9", WITH "1" BEING THE LEAST SATISFACTORY AND "9" BEING THE MOST SATISFACTORY, HOW WOULD YOU RATE YOUR CURRENT COMMUTE OVERALL ?

     1. 1
     2. 2
     3. 3
     4. 4
     5. 5
     6. 6
     7. 7
     8. 8
     9. 9
    10. DON'T KNOW/REFUSED

****

40. TO GET A BETTER IDEA OF DAILY TRIP ACTIVITY, I'D LIKE TO ASK YOU ABOUT YOUR COMMUTE TODAY (OR MOST RECENT COMMUTE IF NONE TODAY).

    AT WHAT TIME DID YOU LEAVE THE HOUSE TODAY TO GO TO WORK ?

    ***SURVEYOR'S NOTE: DENOTE AM OR PM USING THE FOLLOWING FORMAT: 8:00 AM

****

41. AND AT WHAT TIME DID YOU ARRIVE AT WORK ?

    ***SURVEYOR NOTE: DENOTE AM OR PM USING THE FOLLOWING FORMAT: 8:00 PM

****

42. WHAT TIME DID YOU LEAVE WORK TODAY TO GO HOME ?

****SURVEYOR NOTE: DENOTE AM OR PM USING THE FOLLOWING FORMAT: 8:00 AM

****SURVEYOR NOTE: IF MORE THAN ONCE IN DAY, THEN LAST TIME

****

43. WHAT TIME DID YOU ARRIVE HOME FROM WORK TODAY ?

***SURVEYOR NOTE: DENOTE AM OR PM USING THE FOLLOWING FORMAT: 8:00 PM

****

44. ABOUT HOW MANY MILES DO YOU TRAVEL TO WORK ONE-WAY ?

*** SURVEYOR INSTRUCTION: CODE "DON'T KNOW" OR REFUSED AS "999"

****

45. *** DON'T READ TO RESPONDENT, CODE BASED ON ABOVE QUESTION ****

1. 0 - 3.5 MILES
2. 3.6 - 7.5 MILES
3. 7.6 - 20.5 MILES
4. 20.5 - 25.0 MILES
5. 25.1 + MILES
6. DON'T KNOW/REFUSED

(DON'T READ PRECODED RESPONSES)

****

46. NOW WE ARE GOING TO SWITCH FORM YOUR MOST RECENT COMMUTE TRIP TO YOUR TYPICAL OR USUAL TRIP.

ABOUT HOW MANY MINUTES DOES IT USUALLY TAKE YOU TO TRAVEL FROM HOME TO WORK ?

SURVEYOR NOTE: RECORD TIME IN MINUTES, NOT HOURS

****

47. IF YOU HAD TO ARRIVE AT WORK BY A SPECIFIC TIME, HOW MUCH TIME WOULD YOU HAVE TO ALLOW FOR YOUR TRIP TO BE SURE YOU ARRIVED ON TIME ?

****

48. ABOUT HOW MANY MINUTES DOES IT USUALLY TAKE YOU TO TRAVEL FROM WORK TO HOME ?

*** SURVEYOR NOTE: RECORD TIME IN MINUTES, NOT HOURS ***

****

49. DO YOU FEEL YOUR COMMUTE TIME IS LONGER NOW THAN IT WAS ONE YEAR AGO ?

1. YES
2. NO
3. DON'T KNOW
4. REFUSED

(PROMPT ONLY IF NO ANSWER)

****

50. HOW MANY DAYS A WEEK DO YOU NEED YOUR CAR AT WORK FOR
EITHER BUSINESS OR PERSONAL TRIPS DURING WORK HOURS ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. NONE

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

51. DO YOU HAVE TO PAY FOR PARKING AT YOUR WORK SITE ?

1. YES
2. NO

SKIP AFTER Q51 IF Q<51> EQ 2 THEN GO 54

****

52. HOW MUCH DOES IT COST TO PARK ?

***SURVEYOR NOTE: IN THIS FORMAT "#.##" OR "##.##" OR "###.##"

****

53. DAY/WEEK/MONTH

1. DAY
2. WEEK
3. MONTH

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

54. DOES YOUR EMPLOYER OFFER FLEX-TIME WORK SCHEDULES
SUCH AS 3-36, 4-40 OR 9-80 ?

1. YES
2. NO
3. DON'T KNOW

(3-36 IS 3 12HR DAYS, 4-40 IS 4 10HR DAYS,
9-80 IS 9 9HR DAYS OVER TWO WEEKS)
(PROMPT ONLY IF NO ANSWER)

SKIP AFTER Q54 IF Q<54> NE 1 THEN GO 58

****

55. WHICH SCHEDULES DO THEY OFFER ?

1. 3-36 (3 12 HOUR DAYS PER WEEK)
2. 4-40 (4 10 HOUR DAYS PER WEEK)
3. 9-80 (9 9 HOUR DAYS PER TWO WEEKS)
4. OTHER

OTHER LINE = 206
(Multiple Response)

****

56. ARE YOU CURRENTLY ON A FLEX-TIME WORK SCHEDULE ?

1. YES
2. NO

(PROMPT ONLY IF NO ANSWER)

SKIP AFTER Q56 IF Q<56> EQ 2 THEN GO 58

****

57. WHICH SCHEDULE ARE YOU ON ?

1. 3-36 (3 12 HOUR DAYS PER WEEK)
2. 4-40 (4 10 HOUR DAYS PER WEEK)
3. 9-80 (9 9 HOUR DAYS PER TWO WEEKS)
4. OTHER

OTHER LINE = 207

(PROMPT ONLY IF NO ANSWER)

****

58. NOW I AM GOING TO READ YOU A LIST OF SERVICES THAT EMPLOYERS MIGHT PROVIDE TO PROMOTE ALTERNATIVES TO DRIVING ALONE. FOR EACH ONE PLEASE TELL ME IF YOUR EMPLOYER PROVIDES THE SERVICE TO EMPLOYEES.

ENTER 'XX' TO CONTINUE

****

QUESTIONS 59-67 ARE RANDOMLY ROTATED

****

59. ASSISTANCE IN FORMING CARPOOLS OR VANPOOLS ?

1. YES
2. NO
3. DON'T KNOW REFUSED

****

60. FINANCIAL INCENTIVES TO THOSE WHO RIDESHARE ?

1. YES
2. NO
3. DON'T KNOW/REFUSED

SKIP AFTER Q60 IF Q<60> NE 1 THEN GO 64

****

61. HOW MUCH MONEY PER MONTH ?

****

62. HAVE YOU RECEIVED ANY MONEY FROM YOUR EMPLOYER AS PART OF THE RIDESHARE PROGRAM ?

1. YES
2. NO

****

63. HAS RECEIVING MONEY FROM YOUR EMPLOYER FOR RIDESHARING INFLUENCED HOW YOU GET TO WORK ?

1. YES
2. NO

****

64. ENTER 'XX' TO CONTINUE.

****

65. SELLING OR PROVIDING BUS OR RAIL PASSES ?

1. YES
2. NO
3. DON'T KNOW/REFUSED

****

66. PROVIDING A GUARANTEED RIDE HOME IN CASE OF AN EMERGENCY ?

1. YES
2. NO
3. DON'T KNOW/REFUSED

****

67. THE $2 A DAY INCENTIVE PROGRAM FOR RIDESHARING ?

1. YES
2. NO
3. DON'T KNOW/REFUSED

****

68. WHAT FACTORS DO YOU CONSIDER WHEN CHOOSING YOUR MEANS OF TRANSPORTATION TO WORK ?

1. COMMUTING COSTS	12. NOT BEING DEPENDENT ON OTHERS
2. COMFORT/RELAXATION	13. CONVENIENCE/FLEXIBILITY
3. TRAVEL TIME TO WORK	14. HAVING VEHICLE AVAILABLE TO TAKE KIDS TO DAYCARE/SCHOOL
4. PRIVACY	
5. ENJOY TALKING TO SOMEONE	15. INCENTIVES OFFERED BY EMPLOYER
6. HAVING VEHICLE DURING WORK	16. OTHER WAYS ARE IMPRACTICAL
7. HAVING VEHICLE BEFORE/AFTER WORK	17. SAVES ENERGY/FUEL
8. REDUCING POLLUTION/CLEAN AIR	18. RELIABILITY/DEPENDABILITY
9. SAFETY	19. WORK HOURS/WORK SCHEDULE
10. HAVING NO OTHER WAY TO GET TO WORK	20. WANT TO GET HOME AT ANY TIME
11. STRESS	21. OTHER (OTHER LINE = 416)

*** SURVEYOR NOTE: PROMPT AT LEAST TWICE, "WHAT ELSE" UNTIL "NOTHING"

OTHER LINE = 208
(Multiple Response)

(PROMPT ONLY IF NO ANSWER)

****

69. AMONG THE FACTORS MENTIONED, WHICH ONE IS MOST(SECOND MOST, THIRD MOST) IMPORTANT WHEN CHOOSING YOUR MEANS OF TRANSPORTATION TO WORK ?

1. COMMUTING COSTS	12. NOT BEING DEPENDENT ON OTHERS
2. COMFORT/RELAXATION	13. CONVENIENCE/FLEXIBILITY
3. TRAVEL TIME TO WORK	14. HAVING VEHICLE AVAILABLE TO TAKE KIDS TO DAYCARE/SCHOOL
4. PRIVACY	
5. ENJOY TALKING TO SOMEONE	15. INCENTIVES OFFERED BY EMPLOYER
6. HAVING VEHICLE DURING WORK	16. OTHER WAYS ARE IMPRACTICAL
7. HAVING VEHICLE BEFORE/AFTER WORK	17. SAVES ENERGY/FUEL
8. REDUCING POLLUTION/CLEAN AIR	18. RELIABILITY/DEPENDABILITY
9. SAFETY	19. WORK HOURS/WORK SCHEDULE
10. HAVING NO OTHER WAY TO GET TO WORK	20. WANT TO GET HOME AT ANY TIME
11. STRESS	21. OTHER (OTHER LINE = 416)

***SURVEYOR NOTE: ASK SEPARATELY FOR 1ST, 2ND AND 3RD MOST IMPORTANT
SKIP BEFORE Q69 IF # RESPONSES FOR Q<68> EQ "1" THEN GO 70

OTHER LINE = 209
(Multiple Response)

(PROMPT ONLY IF NO ANSWER)

****

70. IF THE PRICE OF GASOLINE CONTINUES TO RISE, AT WHAT PRICE WOULD YOU CONSIDER RIDESHARING OR PUBLIC TRANSIT TO GET TO WORK ONE OR MORE DAYS PER WEEK ?

1. $4.00
2. $4.50
3. $5.00
4. WOULD NOT CONSIDER REGARDLESS OF PRICE
5. DON'T KNOW REFUSED

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP BEFORE Q70 IF Q<13> EQ 2 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 3 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 4 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 5 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 6 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 7 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 8 THEN GO 71
SKIP BEFORE Q70 IF Q<13> EQ 9 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 2 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 3 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 4 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 5 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 6 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 7 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 8 THEN GO 71
SKIP BEFORE Q70 IF Q<15> EQ 9 THEN GO 71

****

71. DO YOU USE ANY INFORMATION PRIOR TO YOUR COMMUTE TO AVOID CONGESTION ?

1. YES
2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP BEFORE Q71 IF Q<13> EQ 8 THEN GO 74
SKIP BEFORE Q71 IF Q<13> EQ 9 THEN GO 74
SKIP AFTER Q71 IF Q<71> EQ 2 THEN GO 74

****

72. WHAT SOURCES OF INFORMATION DO YOU USE TO AVOID CONGESTION ?

1. TV
2. RADIO
3. INTERNET
4. COMMUTESMART.INFO WEBSITE
5. TRAFFIC BOARDS AT COFFEE SHOP/OTHER LOCATIONS
6. NOTHING
7. OTHER

OTHER LINE = 210
(Multiple Response)

****

73. WHAT STEPS DO YOU TAKE TO AVOID CONGESTED SITUATIONS ?

1. CHANGE ROUTE
2. CHANGE DEPARTURE TIME
3. CHANGE TRANSPORTATION MODE
4. NOTHING
5. OTHER

OTHER LINE = 211
(Multiple Response)

(PROMPT ONLY IF NO ANSWER)

****

74. HAVE YOU EVER CONTACTED 1-800-COMMUTE ?

1. YES
2. NO

(PROMPT ONLY IF NO ANSWER)

****

75. HAVE YOU EVER VISITED THE COMMUTESMART.INFO WEBSITE ?

1. YES
2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

76. IN WHICH COUNTY DO YOU WORK ?

1. LOS ANGELES
2. ORANGE
3. RIVERSIDE
4. SAN BERNARDINO
5. VENTURA
6. IMPERIAL
7. KERN
8. SAN DIEGO
9. OTHER
10. REFUSED/DON'T KNOW

OTHER LINE = 212

****

77. AND APPROXIMATELY HOW MANY PEOPLE ARE EMPLOYED AT YOUR WORK SITE . . . ?

1. LESS THAN 25
2. 25 TO 99
3. 100 - 249
4. 250 - 499, OR
5. MORE THAN 500
6. REFUSED/DON'T KNOW (IF DON'T KNOW, ASK RESPONDENT TO ESTIMATE)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

78. HOW LONG HAVE YOU LIVED AT YOUR CURRENT ADDRESS ?

1. LESS THAN 2 YEARS
2. 2-3 YEARS
3. 4-5 YEARS
4. 6-10 YEARS
5. 11-20 YEARS
6. MORE THAN 20 YEARS
7. REFUSED

****

79. WHEN YOU MOVED TO YOUR CURRENT HOME, WAS IT BECAUSE OF A CHANGE IN JOB LOCATION ?

1. YES
2. NO

SKIP BEFORE Q79 IF Q<78> GE 4 THEN GO 83

****

80. AND AS A RESULT OF MOVING, DID THE DISTANCE TO WORK BECOME . . . ?

1. SHORTER
2. LONGER, OR
3. STAY ABOUT THE SAME

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

81. WHY DID YOU DECIDE TO MOVE TO A LOCATION FURTHER FROM WORK ?

1. BETTER VALUE (BETTER HOME/NEIGHBORHOOD FOR THE MONEY)
2. OTHER

OTHER LINE = 213
(Multiple Response)

SKIP BEFORE Q81 IF Q<80> NE 2 THEN GO 82

****

82. WHY DID YOU DECIDE TO MOVE TO A LOCATION CLOSER TO WORK ?

1. REDUCE COMMUTE TIME
2. REDUCE COMMUTE COSTS
3. REDUCE STRESS FROM COMMUTE
4. BETTER TRANSIT OPTIONS OR ALTERNATIVES
5. BETTER VALUE (BETTER HOME/NEIGHBORHOOD FOR THE MONEY)
6. OTHER

OTHER LINE = 214
(Multiple Response)

(DON'T READ PRECODED RESPONSES)

SKIP BEFORE Q82 IF Q<80> NE 1 THEN GO 83

****

83. NOW I AM GOING TO READ YOU SOME FACTORS THAT PEOPLE MIGHT CONSIDER WHEN SELECTING A NEW HOME LOCATION. IF YOU WERE TO MOVE, WHICH OF THESE THREE FACTORS WOULD BE MOST IMPORTANT TO YOU?

WHICH WOULD BE SECOND MOST IMPORTANT ?

1. ABILITY TO WALK TO SHOPS
2. ABILITY FOR CHILDREN TO WALK TO SCHOOLS
3. MORE TRANSIT OPTIONS AND A SHORTER COMMUTE
4. DON'T KNOW / REFUSED / OTHER

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

84. AS PART OF YOUR EMPLOYMENT, DO YOU HAVE THE OPPORTUNITY TO WORK AT HOME INSTEAD OF GOING TO YOUR REGULAR PLACE OF WORK ?

1. YES
2. NO
3. REFUSED/DON'T KNOW

****SURVEYOR'S NOTE: WORKING AT HOME AFTER HOURS DOES NOT QUALIFY

(PROMPT ONLY IF NO ANSWER)

SKIP AFTER Q84 IF Q<84> NE 1 THEN GO 90

****

85. IN A TYPICAL FOUR-WEEK PERIOD, HOW MANY DAYS DO YOU WORK AT HOME INSTEAD OF AT YOUR REGULAR PLACE OF WORK ?

***SURVEYOR'S NOTE: ASSUME ONE MONTH = FOUR WEEKS (20 WEEK DAYS)

****

86. AND IN A TYPICAL FOUR-WEEK PERIOD, HOW MANY DAYS DO YOU TRAVEL TO YOUR REGULAR WORK LOCATION ?

SKIP AFTER Q86 IF Q<45> GE 1 THEN GO 90

****

87. ABOUT HOW MANY MILES DO YOU TRAVEL TO WORK ONE-WAY ?

*** SURVEYOR INSTRUCTION: CODE "DON'T KNOW" OR REFUSED AS "999"

****

88. *** DON'T READ TO RESPONDENT, CODE BASED ON ABOVE QUESTION ****

1. 0 - 3.5 MILES
2. 3.6 - 7.5 MILES
3. 7.6 - 20.5 MILES
4. 20.5 - 25.0 MILES
5. 25.1 + MILES
6. DON'T KNOW/REFUSED

****

89. AND ABOUT HOW MANY MINUTES DOES IT USUALLY TAKE YOU TO TRAVEL FROM HOME TO WORK ?

SURVEYOR NOTE: RECORD TIME IN MINUTES, NOT HOURS

****

90. OK, WE'RE ALMOST DONE - JUST A FEW QUICK QUESTIONS FOR CLASSIFICATION PURPOSES.

INCLUDING YOURSELF, HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. OTHER
10. REFUSED

OTHER LINE = 215

****

91. IN TOTAL, HOW MANY MOTOR VEHICLES INCLUDING PASSENGER CARS, VANS MOTORCYCLES, AND PICKUP OR PANEL TRUCKS OF ONE-TON CAPACITY OR LESS ARE OWNED OR LEASED BY HOUSEHOLD MEMBERS ?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. NONE
10. REFUSED/DON'T KNOW
11. OTHER

OTHER LINE = 216

****

92. AND DO YOU ALWAYS, SOMETIMES, OR NEVER HAVE A VEHICLE AVAILABLE FOR GETTING TO WORK ?

1. ALWAYS AVAILABLE
2. SOMETIMES AVAILABLE
3. NEVER AVAILABLE
4. REFUSED/DON'T KNOW

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

93. ARE YOU . . . ?

1. UNDER 20 YEARS OLD
2. IN YOUR 20'S
3. 30'S
4. 40'S
5. 50'S
6. 60 OR OLDER
7. REFUSED/DON'T KNOW

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

94. TO WHICH OF THE FOLLOWING ETHNIC GROUPS DO YOU BELONG ?

1. WHITE, NOT HISPANIC
2. AFRICAN AMERICAN (BLACK)
3. HISPANIC
4. ASIAN
5. AMERICAN INDIAN
6. OTHER
7. REFUSED/DON'T KNOW

OTHER LINE = 217

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

95. AND IS YOUR COMBINED TOTAL ANNUAL HOUSEHOLD INCOME . . . ?

1. LESS THAN $20,000
2. $20,000 TO $34,999
3. $35,000 TO $49,999
4. $50,000 TO $64,999
5. $65,000 TO $79,999
6. $80,000 TO $99,999
7. $100,000 OR MORE
8. REFUSED/DON'T KNOW

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

****

96. RECORD GENDER.

1. MALE
2. FEMALE

(DON'T READ PRECODED RESPONSES)

****

97. FOR VALIDATION PURPOSES ONLY, COULD I HAVE YOUR NAME ?

****

98. AND TO CONFIRM, YOUR PHONE NUMBER IS <<PHONE.NUMBER>> ?

1. YES
2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q98 IF Q<98> EQ 1 THEN GO END

****

99. REVISED PHONE NUMBER:

SKIP AFTER Q99 GO END

****

APPENDIX B:
Project Documentation of the
2005 State of the Commute Survey

OVERVIEW

Data for the 2005 State of the Commute survey was obtained through 3,000 completed telephone interviews. This is comprised of 539 surveys each in Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties, and 305 surveys in Imperial County. A sample size of 539 provides a sampling error of 4.2 percent (5.6 percent for a sample size of 305) at a 95 percent confidence level. A 4.2 percent sampling error at a 95 percent confidence level means that if a survey was conducted 100 times, on average 95 times out of 100, characteristics of the sample would reflect the characteristics of the population within plus or minus 4.2 percent.

Statistical accuracy is based on random sampling of the target audience. Thus accuracy calculations for the SCAG region as a whole must be based on sampling that is representative of the entire region, or proportional to the population for the individual counties. Due to its higher population, Los Angeles County has the lowest ratio of completed surveys to total county population. The other counties have "over-sampling" because they have completed survey to population ratios that are higher than Los Angeles County. Accordingly, the effective sample size for the lower population counties used to calculate statistical accuracy for the region must be reduced to match the survey to population ratio for Los Angeles County. This produces an effective sample size of 932 for the calculation of regional accuracy. A sample size of 932 provides a sampling error of 3.2 percent.

English and Spanish versions of the questionnaire were available to meet the language requirements of the respondents. Four hundred and three of the 3,000 surveys were conducted in Spanish.

The target population of the State of the Commute Survey are commuters who live within the six-county SCAG region, are 18 years or older, and work at least 35 or more hours per week. In 2005, potential respondents that work 35 or more hours from home were also included in the survey with results reported separately for these home-based workers. A total of 2,844 respondents worked 35 or more hours outside the home and 156 were home-based workers.

Actual selection of eligible respondents was based on a combination of gender and most recent birthday. If the potential respondent was female, the surveyor asked to speak to the person over 18 that works full-time who had the most recent birthday. If the potential respondent was a full-time working male over 18 the survey was conducted with this respondent without asking about birthdays. This process was used in order to avoid the potential bias of surveying a disproportionate number of women, since they are more likely to answer the telephone. Once interviewing had been completed, responses were weighted by

the number of eligible respondents within the household, ethnicity and income according to the most recently available Census data. For analysis at the regional level, data was additionally weighted by the commuter population in each county based on Census data.

PROJECT INITIATION

SCAG contracted with Strategic Consulting and Research (SCR) of Irvine, California to conduct the data collection efforts. On May 31, 2005, a project initiation meeting was held to finalize the project objectives, review the survey instrument and finalize the project timeline.

The survey was finalized, translated into Spanish, and entered into the Computer-Assisted Telephone Interviewing (CATI) system on September 15, 2005.

SURVEY PRETEST

The pretest was conducted on September 18, 2005. Fifteen surveys were completed and the data was reviewed to ensure that skip patterns were correct, and that questions were clearly understood by respondents.

SURVEYOR TRAINING

An extensive surveyor training program was conducted. Forty-six interviewers received a three-hour training program.

Telephone interviews received project specific training that included the following:

- An overview of the project's background and objectives so that each surveyor is able to work more effectively with respondents to secure meaningful responses. This also helps identify any possible surveying issues so that they can be addressed before they become problems.
- The opportunity to conduct the questionnaire on-line with hypothetical respondents to familiarize themselves with the questionnaire and skip patterns.
- At least one test survey with a "live" respondent.
- A daily review with supervisory staff to discuss any daily interviewing issues that had been identified the previous day.

SURVEY SAMPLE

Survey respondents' telephone numbers were generated based on random digit dialing using a clean and updated sample generation procedure.

SCR used SSI-SNAP™ (Survey Sampling, Inc.) as its source for generating random digit dialing numbers. The sample was selected to achieve the designated sub-sample size for each of the counties by designating seven of the 10 digit telephone numbers. This means that the area code and any working prefixes in the sample set were identified. The first number in the exchange was

generated to ensure that working blocks were used. The remaining three digits, which comprise the balance of the exchange, were then randomly generated.

WORKING BLOCKS

The working blocks of phone numbers were supplied to SSI by a company called BellCore which controls the use of all phone numbers, working blocks, prefixes and area codes for the United States. SSI receives tapes from BellCore every six weeks to update working blocks. They also receive all new area codes two years in advance with a predetermined activation date. Together, this ensures that SSI includes all active working blocks in their database. Since BellCore is the source of phone numbers in the United States, and SSI receives them as they are released, this is the most up-to-date method possible for securing active working blocks of phone numbers.

SCREENING FOR DISCONNECTS, BUSINESS AND CELL PHONES

SSI has the ability to check the sample to eliminate cell phone exchanges and to reduce the number of disconnected phone numbers. No active land line phone numbers were lost in this process. SSI also has the ability to screen for known businesses. The active business number file is updated every three months, and phone companies retain disconnected numbers for at least six months before reassigning them. Accordingly, the chances of losing an active residential number are less than one percent.

A total of 46,535 numbers were ordered to obtain the sample size of 2,844 commuting workers and 156 teleworkers.

DATA COLLECTION PHASE

Data collection began on September 25, 2005 and concluded on December 29, 2005. A limited number of additional surveys were completed March 12 to 18, 2006 to replace illogical or incomplete surveys.

SURVEY EXECUTION

All surveys were conducted using SCR's in-house CATI calling center. Surveys were conducted Monday through Friday between 6:00 PM and 9:00 PM, on Saturday between 9:00 AM and 9:00 PM, and on Sunday between 9:00 AM and 9:00 PM. When a potential respondent was reached and could not complete the survey at that time, SCR scheduled a call back at a time of their choice using SCR's toll-free number.

CALL-BACKS AND CALL DISPOSITIONS

Each number was called a minimum of five times until the quota for each county was met. Call times were varied to increase the likelihood of making contact. Five call attempts were made to each number to minimize the potential bias resulting from only capturing "easy-to-reach" respondents.

BILINGUAL SURVEYING

Surveys were conducted in either English or Spanish at the discretion of each respondent. A total of 403 surveys, or 13.4 percent of the total survey sample, was conducted in Spanish at the respondent's request.

QUALITY ASSURANCE

Quality assurance included ongoing silent monitoring, review of completed surveys, and random callbacks to verify key responses.

SILENT MONITORING

Every surveyor was silently monitored throughout the course of the project. During the initial stages of the project every surveyor was monitored after they had completed their training and results of the silent monitoring were discussed with the telephone surveyor. After project start-up, random silent monitoring was conducted during each shift.

REVIEW OF DAILY PERFORMANCE STATISTICS

On a daily basis, performance statistics for each surveyor were reviewed to ensure that data integrity was maintained. Results of the previous day's survey efforts were discussed at the beginning of each shift with the telephone interviewers.

VERIFICATION OF SURVEYS

Five hundred and thirty-two respondents, or 17.7 percent of the survey sample, were re-contacted by quality assurance staff to verify responses to selected questions.

DATA PREPARATION

All data collected was reviewed by quality assurance staff to ensure data integrity.

A series of proprietary quality assurance programs were used to review data integrity on an ongoing basis. Programs were used to:

- Identity missing data
- Identify excess data
- Check consistency of related responses
- Review other lines and pre-coded responses

DATA TRANSFER

Data was collected in the CATI system and transferred to an SPSS format. All data transfer was conducted in-house with project staff.

CALLING STATISTICS

A total of 46,535 telephone numbers were included in the sample. Screening for disconnects and cell phones reduced the sample by 10,021 to 36,514 numbers. All numbers were used for calling and an average number of 2.6 calls per

number were made to complete the 3,000 surveys. The average survey length was 10 minutes and 40 seconds.

There were 11,575 ineligible phone numbers included in the screened sample. Ineligible numbers are outlined below:

INELIGIBLE NUMBERS	
Disconnected numbers	6,418
Business numbers	3,047
FAX machines	2,110

There were 24,939 eligible numbers within the sample.

The sample included 9,129 numbers that were never reached during the survey time frame. The numbers never reached are outlined below:

NEVER REACHED	
Perpetual answering Machine/voice mail	3,016/475
Perpetual busy	543
Perpetual no answer	5,095

A total of 15,810 potential respondents were reached. The disposition of these calls is outlined below:

NUMBERS REACHED	
Completed commuter surveys	2,844
Completed telecommuter surveys	156
No qualified respondent in Household	1,283
Refusals	7,624
Language barrier, non-English or Spanish	348
On-line for requested call back	3,013
Incomplete interviews	542

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