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**Changing California Lifestyles: Consequences for Mobility**

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## Changing California Lifestyles and Consequences for Mobility

### Summary

Underlying changes in demographics and travel are an important set of social and personal choices that determine behavior. California's reputation as a trendsetter for the rest of the nation in terms of social developments and public policy is primarily driven by the dynamic shifts in lifestyle choices of our state's individual residents and communities. These lifestyle choices and trends are intimately linked to the choices we make about where we live, where we work, where we shop, and perhaps most importantly for the purposes of this investigation, how we travel. Therefore, understanding lifestyle trends and their implications for travel demand and transportation infrastructure investments is a critical element in the determination of future transportation policy in California.

This section of the report focuses on specific Californian lifestyle trends as illuminated by demographic and travel statistics. The implications of these trends for transportation investments and priorities are presented within this context. The following issues are covered in detail:

- ◆ A discussion of the existing and growing importance of non-work travel. This issue is used as a point of entry to discuss the various Californian lifestyle choices that are driving the growth of non-work travel.
  - During the period from 1969 to 1995, work-related travel fell from 36 to 18% of all trips nationally. Meanwhile, non-work travel increased from 64 to 82% of all trips nationally.
- ◆ Increasingly consumption and entertainment-oriented lifestyles are important factors driving the growth of non-work travel. From 1969 to 1995 consumer trips as grew from around 29 to around 44% of all vehicle trips nationally. These trends are not solely the result of the growth of disposable income over time. Consumption of entertainment activities grew for nearly all income groups during the period from 1984 to 1998, with the largest growth found in the second lowest income quintile (the equivalent of the lower middle class or working class). This trend indicates a fundamental shift in choice priorities for lower income households, implying a change in lifestyle choice as well.
- ◆ Racial and ethnic identities have important implications for lifestyle choices and travel behavior. California's unique status as an increasingly multiethnic society also implies a changing set of lifestyle preferences and priorities for its residents.
  - California's increasingly non-white population are several times as likely to use transit and more likely to walk than whites. While some of these differences can be explained by income differences, differences in cultural attitudes and lifestyle choices can also explain these choices.
- ◆ With the aging of the "baby boom" generation, California's population is aging as well. Since many of these people grew up in suburban, auto-oriented communities, it seems likely that the aged will continue to travel by car more than earlier generations.
  - Among individuals 85 years or older, the percentage of men with drivers licenses increased from 47.5 to 71.7% and the percentage of women with driver's licenses increased from 11.7 to 28.5%.

- Vehicle miles traveled for males over 65 is projected to increase by over 53% during the period from 1995 to 2030. During this same period, the average female of the same age is projected to increase their VMT by nearly 130%.
- ◆ While the growth in the use of the automobile has dominated the post-war history of California, more recent trends in transit use suggest that the growth of the car-oriented lifestyle may have peaked. Closer investigation of the following statistics reveals an increased willingness on the part of suburban commuters to use transit.
  - The total number of trips taken by transit in California grew at an annual rate ranging from 2.7 to 3.9%, a figure consistently larger than the growth in annual vehicle miles traveled for the state, which ranged from 0.3 to 2.7%.
  - Using the San Francisco Bay Area as an example, heavy rail and commuter rail services grew at the fastest pace in the 1999 to 2000 period, with the fastest growth rates ranging from 15.6% for the mature Bay Area Rapid Transit system to 50% for the newly initiated Altamont Commuter Rail service.
  - Growth in the ridership on suburban bus systems was rapid as well, with the fastest growing agencies ranging from 4.7% in the 1999 to 2000 period for the Golden Gate Highway and Transit District to 6.3% for the Eastern Contra Costa County Transit District.
- ◆ Recent immigrants to the United States living in California form a disproportionate share of transit riders.
  - In Southern California, the share of transit commuters who are recent immigrants increased from roughly 27 to 42 percent between 1980 and 1990.
  - After a period of ten years following the date of arrival in the country, immigrants' travel behavior in Southern California began to fall. Solo driving increased to similar levels to the native-born population.

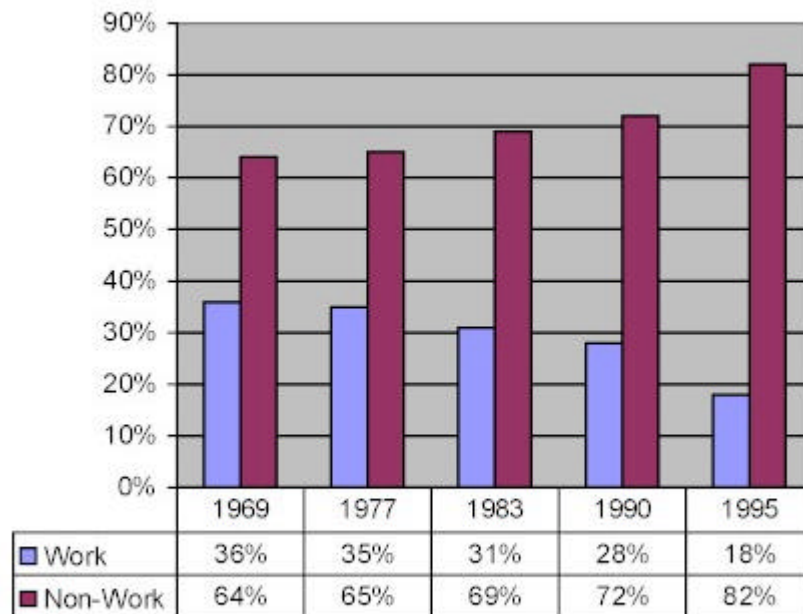
## Introduction

As the composition of California's racial, ethnic, cultural, and other demographic categories change, the ways we conduct our lives and the means by which we seek to achieve our perceived needs change as well. California's reputation as a cultural trendsetter for the rest of the nation is primarily determined by the way we live our lives. These lifestyle trends have profound implications for our travel behavior as well, reflecting our changing priorities and our efforts to satisfy our personal and societal needs and desires. Therefore, understanding lifestyle trends and their implications for travel demand and transportation infrastructure investments is a critical element in the determination of future transportation policy in California. While much research has been done in the transportation field on understanding the journey to work trip, these trips are a decreasing share of the total share travel. To understand the connections between lifestyle choices and travel behavior, we have to focus on this growing and dynamic portion of total trips, non-work travel.

## Non-Work Travel

Transportation demand in California, like the rest of the nation, is increasingly characterized by an emphasis on non-work oriented travel. Figure 1 shows the changes from 1963 to 1995 in the percent of work and non-work vehicle trips in the United States.

**Figure 1: Work/Non-Work Trips as Percent of Vehicle Trips**



Source: *Zmud & Arce* 1999, using 1990 NPTS Databook, Volume II & 1995 NPTS

Figure 1 illustrates the national trend of travel has increasingly become dominated by non-work trips. This change has had profound implications for the daily travel geographical and temporal travel patterns. Since non-work trips do not cluster around peak periods of the day as commute

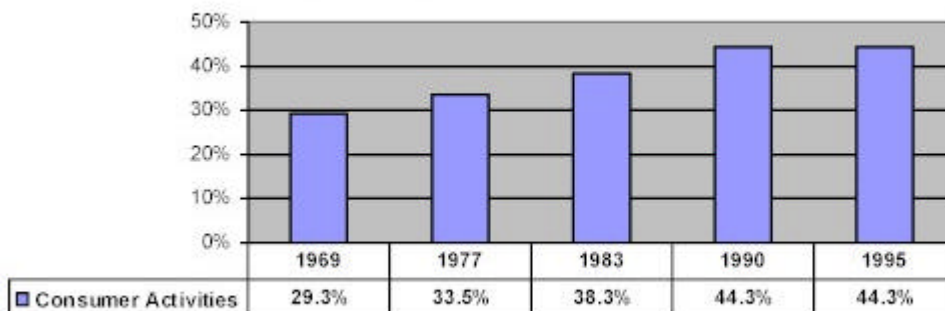
trips do, the fundamental patterns we are accustomed to in urban areas have disappeared. Today traffic congestion can occur at any time of the day or week. The geographical predictability of congestion has also shifted, with travel origins and destinations dispersed throughout the metropolitan area. This is in sharp contrast to the more predictable patterns of congestion found during peak periods on arterials leading to and from the urban core where jobs and services were traditionally located. Today, origins and destinations have been spread more or less evenly throughout our metropolitan areas, complicating our efforts to predict traffic demand and congestion levels.

These trends are due in part to changes in the priorities we set for our daily activities. Understanding the nature of these priorities and the changes we are likely to see in the future should help us to gain some insight into the likely implications of these trends for travel demand in the future. There are potential causes for these changes, including the rise of a consumer culture, changing ethnic and demographic lifestyle characteristics, and changes in the nature of urban and suburban lifestyle choices.

### Consumer and Leisure-Oriented Culture and Travel

Our cultural values undoubtedly play an important role in the determination of our travel behavior. To the extent that our society has become increasingly oriented towards material consumption and leisure activities, travel behavior has shifted towards the facilitation of these activities as well. Figure 2 shows how the growth in consumer, family and personal activities<sup>1</sup> have effected non-work travel behavior:

**Figure 2: Consumer, Family and Personal Trips as Percent of Vehicle Trips**



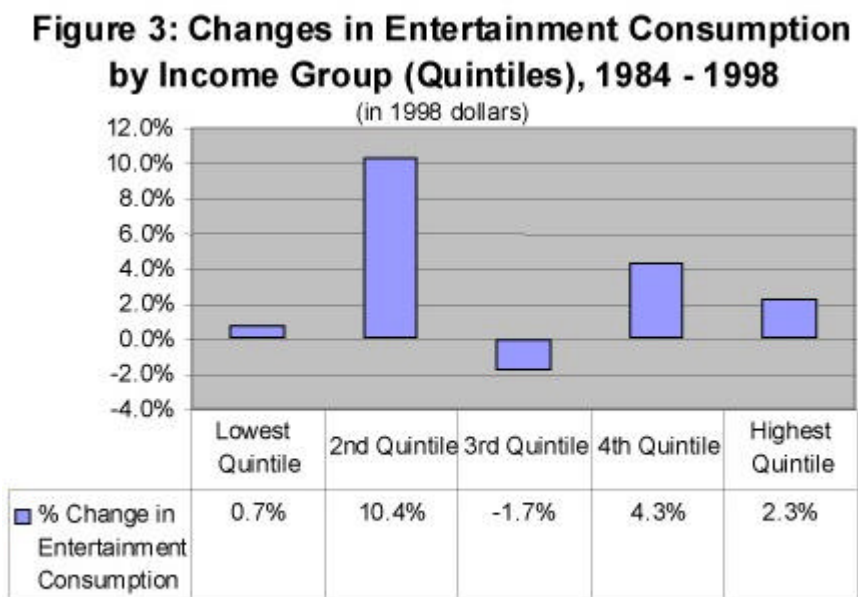
Source: Zmud & Arce 1999; using 1990 NPTS Databook, Volume II & 1995 NPTS

Just as the share of non-work trips shown in Figure 1 steadily increased over time from 64 to 82%, the share of consumer trips as a percent of vehicle trips increased during that same period from 29.3 to 44.3%. This trend indicates that the growth in non-work travel is due in part to increased consumer activities. From these figures, we can also hypothesize the growth of a consumer and leisure-oriented culture in the United States that is fueling consumer trip growth.

<sup>1</sup> “Consumer, family and personal” trips and activities are defined as shopping and other family/personal, non-medical outings as recorded by the Nationwide Personal Transportation Survey.

There are several potential causes of this cultural shift. First, a growth in disposable income available to consumers would allow more consumption of material goods, entertainment, and the travel needed to access these goods and services. From this perspective, an increasing cultural emphasis on entertainment and consumption is a natural outcome of income growth and prosperity. Thus, under this hypothesis, cultural change is the dependent variable, driven by changes in relative income growth.

However, additional data also suggests that cultural forces of change are at work, independent of the effects of income growth. While some of this increase in entertainment and consumption travel may be due to simple increases in disposable income available to American households, Figure 3 shows that at least part of this increase may be due to a shift in the budget priorities of lower income groups, indicating a cultural shift as well.



Source: Consumer Expenditure Survey, 1984 & 1998

Figure 3 shows that while consumption of entertainment services<sup>2</sup> grew for virtually all income groups during the period from 1984 to 1998, consumption grew the fastest (10.4%) for the Second Quintile group. Since we might describe this group as “Working Class” households, a reasonable conclusion would be that income growth in society at large is not the only force driving increased consumption of entertainment services. One explanation for this rapid growth in entertainment consumption by the working class cohort would be that our cultural priorities are changing. These cultural changes are changing consumption priorities as well, favoring entertainment activities. This trend may of reflect the growth of a more leisure-oriented lifestyle

<sup>2</sup> “Entertainment Services” is defined by the Bureau of Labor Statistics’ Consumer Expenditure Survey as: Fees and admissions, Television, radio, and sound equipment, Pets, toys, hobbies, and playground equipment, Other entertainment equipment and services.

in the United States and it would seem likely that it explains, at least in part, the shifting temporal and geographical travel patterns we see as well in favor of non-work travel.

These trends are noteworthy for California as well as the rest of the nation in that they indicate that we are experiencing an increase in non-work travel due in part to an increasingly consumption and entertainment-oriented lifestyle.

### **Demographic Changes and Their Lifestyle Implications**

While changes in lifestyle may reflect purely cultural shifts in the priorities of society, demographic changes in society also play an important role in the determination of our collective and individual lifestyles. There are several important demographic changes occurring in California that are changing our priorities for daily activities and travel behavior. Some of the most important ones are our increasing longevity and proportion of aged in society, the increasing influence, independence, and participation of women in society, and the growing racial and ethnic heterogeneity of our state. All of these changes have profound implications for the culture we live in, the priorities we set for our daily lives, and our corresponding patterns of travel demand.

### **Racial and Ethnic Variants of Consumer Lifestyles and Travel Behavior**

As we witness these changes in lifestyle choices with regard to consumption behavior, it is also useful to note that there are also interesting differences in consumer lifestyle and travel choices between racial and ethnic groups. Table 1 presents data from the Nationwide Personal Transportation Survey. These data show that most people apportion their travel according to a similar set of priorities with regard to trip purpose, despite their racial or ethnic identity.

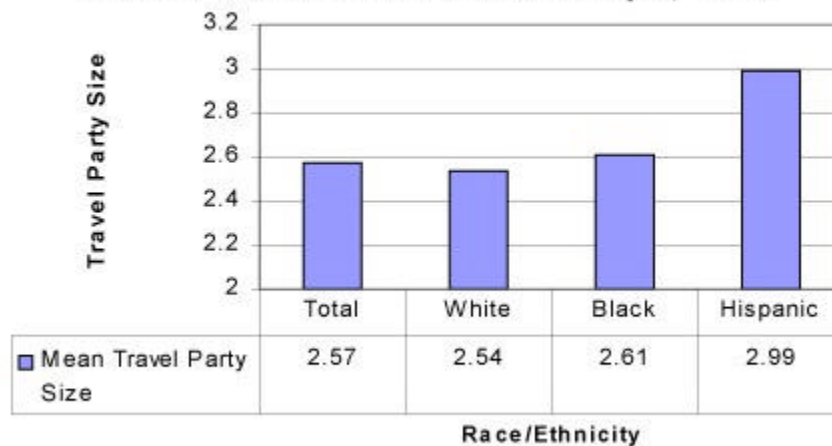
**Table 1: Distribution of Person Trips by Travel Purpose by Race/Ethnicity**

| <b>Trip Purpose</b>            | <b>White</b> | <b>Hispanic</b> | <b>Black</b> |
|--------------------------------|--------------|-----------------|--------------|
| Consumer activities            | 44.3%        | 44.0%           | 46.0%        |
| Work and work-related          | 20.3%        | 20.2%           | 19.1%        |
| Visiting, social, recreational | 25.5%        | 23.4%           | 20.6%        |
| School/church                  | 8.0%         | 10.7%           | 12.5%        |
| Medical/dental                 | 1.5%         | 1.4%            | 1.6%         |
| Vacation                       | 0.2%         | 0.2%            | 0.1%         |
| Other                          | 0.2%         | 0.1%            | 0.1%         |
|                                | 100.0%       | 100.0%          | 100.0%       |

Source: *Zmud & Arce* 1999; using 1990 NPTS Databook, Volume II & 1995 NPTS.

While there are small differences in visiting, social and recreational travel and school/church travel between ethnic/racial groups, the overall picture from Table 1 is one of homogeneity across ethnic and racial groups with regard to priorities for travel. However, while there may be few differences in the proportion of trips taken by purpose, there are significant variations between racial and ethnic groups in terms of their choices of whom they travel with and the modes they choose to travel in. Figure 4 shows the differences between racial and ethnic groups in travel party size for local private vehicle trips in 1995 for the U.S.

**Figure 4: Travel Party Size for Local Private Vehicle Recreation Trips, 1995**



Source: *McGuekin & Mallet* 1999, p. 13; from 1995 NPTS

Figure 4 shows that non-white recreation trips tend to consist of larger numbers of people. This is particularly true for Hispanics, who tended to travel in the largest groups for recreation. Since we can assume that recreational activities and travel are essentially elective and are among the more socially oriented activities (i.e., more likely to engage in group behavior), it is also most likely to show the tendencies for group behavior overall. Therefore, while we can assume that some of these differences in group travel behavior are due to differences in income between groups—and the differences in travel group size is in part an effort to economize on the costs of travel—we can also assume that a significant portion of these differences are due to cultural and lifestyle differences between ethnic and racial groups.

The implications of these differences are profound for the California’s future. Since our cities contain higher proportions of non-whites than rural areas, it seems likely that non-work, recreational travel there will be more efficient, with potentially more carpooling by large social groups. These differences represent, in part, a different lifestyle choice on the part of non-whites that emphasizes group activities, with consequences for travel behavior as well.

**Increasing Longevity and the Increasing Proportion of the Aged**

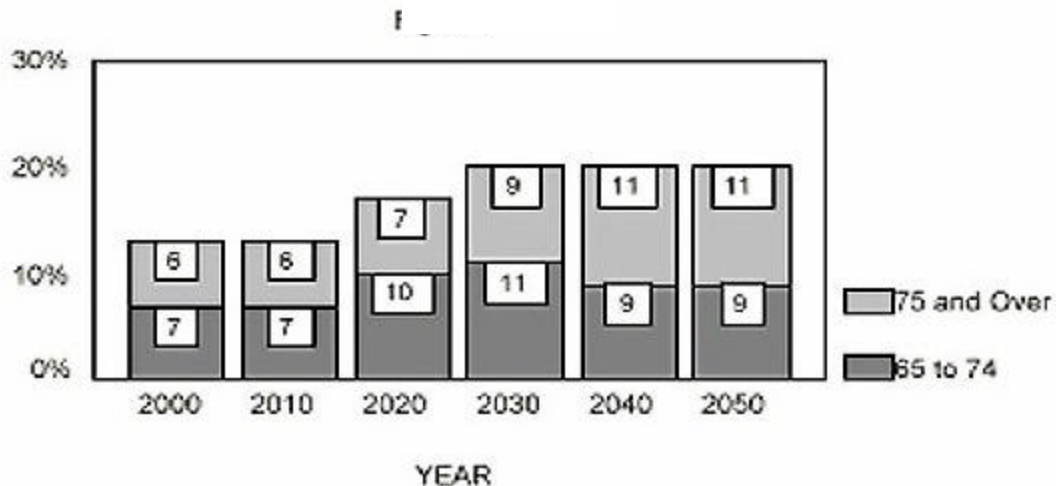
In the nation as a whole, the proportion of aged in society is expected to grow as the “Baby Boomer” generation enters its retirement years.



Figure 4 illustrates this point by showing the projected increases in the proportion of society in the U.S. over 65. As the Baby Boom cohort ages, it is projected to increase the proportion of persons over 65 from around 12% in the year 2000, to around 20% in 2030.

**Figure 4 b:**

**AGE DISTRIBUTION OF THE ELDERLY:  
PROJECTIONS TO 2050**

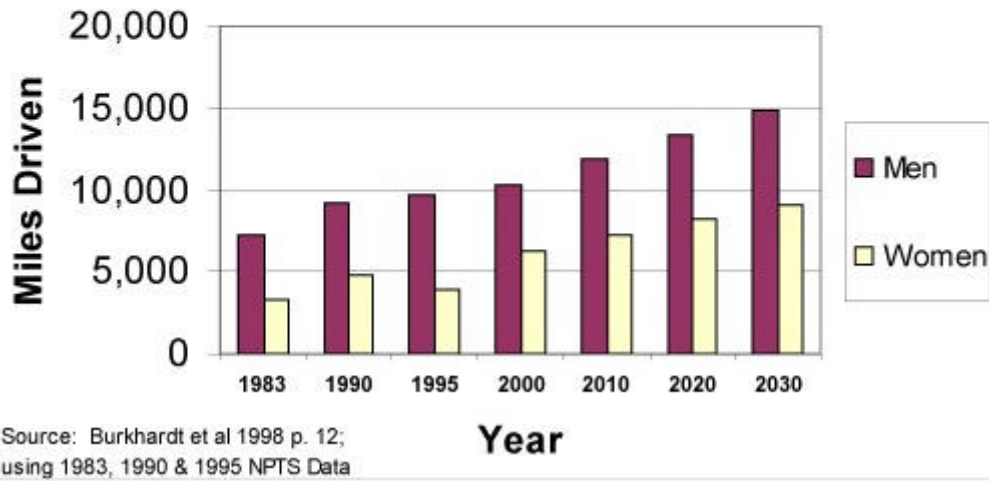


Source: Spain 1997, using U.S. Census Data

While this rapid growth in the proportion of aged is due in large part to the “pig in the python” effect of the Baby Boomer aging, a more subtle but important trend has also been occurring involving the increases in longevity seen in our society. While a person born in 1900 was expected to live only 47 years, an American born in 1994 had a life expectancy of 76 years (Spain 1997: 9). Thus, over the period of not quite one hundred years, our life spans have increased by roughly 61%. With the institutionalization of retirement in our society, our lifestyles have changed dramatically as well, as increasing numbers of people are living longer, traveling more, and working less or not at all in their later years.

There are several indications of the increasing mobility of the aged. Among individuals 85 years or older, the percentage of men with drivers licenses increased from 47.5 to 71.7% (Burkhardt et al 1998 pp. 4-5) and the percentage of women with driver’s licenses increased from 11.7 to 28.5%. These increases will undoubtedly correlate to a higher degree of automobility and travel for these age groups, increasing non-work travel demand and off-peak, suburban and exurban trips.

**Figure 5: Actual and Projected Vehicle Miles Traveled Per Capita by Drivers 65 or Older**



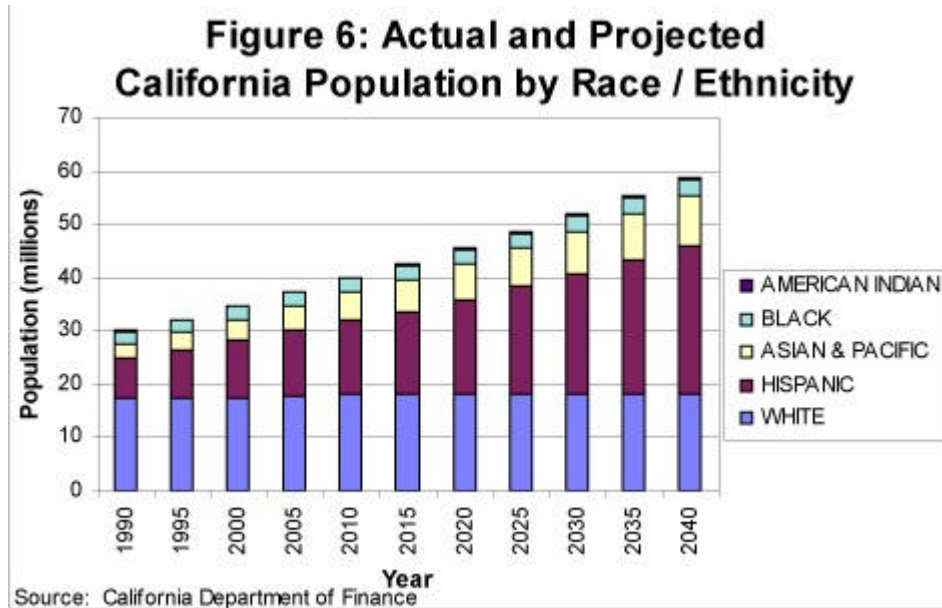
Moreover, the driver’s license gender gap noted for the aged seems to be closing over time since women in their 20s and 30s in the late 1990s held driver’s licenses and drove at nearly the same rates as their male counterparts (Burkhardt et al. 1998 p. 7). We can expect that this narrowing of differences in auto mobility between the sexes for this generation will hold as they age, increasing travel demand for the aged in the future as well. This trend will be compounded by the post-war suburbanization and its associated lifestyles. Since many persons under 30 were raised in suburban communities, they will likely continue to live suburban lifestyles as they retire (Burkhardt et al. 1998 p. 8). This “graying of the suburbs” will undoubtedly result in an increasing amount of automobile travel for the aged as they continue to engage in their suburban, automobile-oriented lifestyles.

These assumptions are reflected in Figure 5, which shows the actual and projected vehicle miles traveled (VMT) per capita for persons 65 and older. Here, the VMT for the average male over 65 is projected to increase by over 53% during the period from 1995 to 2030. During this same period, the average female of the same age is projected to increase their VMT by nearly 130%. If we accept these projections, it seems clear that the demand for automobile travel will significantly increase among the aged as their ranks grow, women become more mobile, and the lifestyles of the aged become more automobile-oriented. When we consider the fact that women tend to live longer lives than men in general, the potential impacts of these trends only grow in estimation.

**Increasing Racial and Ethnic Diversity**

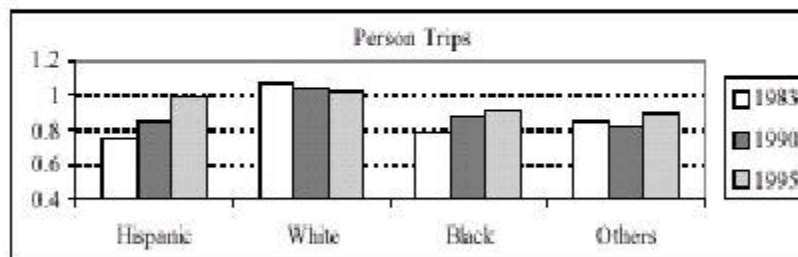
While these changes in age, gender and longevity progress, they take place against a backdrop of an increasingly diverse state. Since racial and ethnic identity are related to cultural identity and lifestyle differences, the degree to which our cultural attitudes change will have implications for

travel behavior as well. Figure 6 shows the actual and projected population of California, broken down by race and ethnicity.



The picture that emerges is one of an increasingly heterogeneous state, with no single racial and ethnic group forming a majority. To the extent that racial and ethnic differences are correlated with different patterns of activity and travel behavior, we can expect these dramatic shifts in the composition of the state’s population to have profound implications for our state’s patterns of travel demand. Figure 7 shows, for each individual racial and ethnic group, the ratio of non-work person trips<sup>3</sup> to all groups combined.

**Figure 7: Ratio of Per Capita Non-Work Person Trips by Racial and Ethnic Groups to All Groups Combined, 1983 to 1995**



Source: *Polzin, Chu, & Rey, 1999: p. 29; from 1983, 1990, & 1995 NPTS*

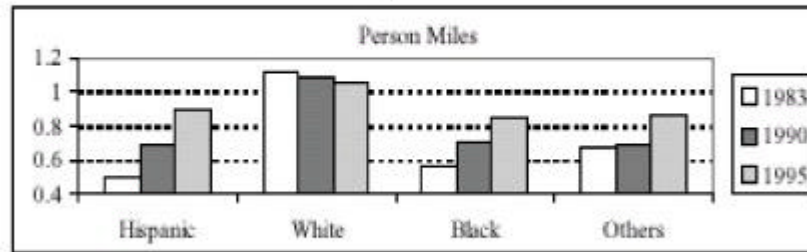
These trends show that while non-white respondents traveled less than whites, there was a steady increase in non-work travel for non-whites over the period from 1983 to 1995. Thus, while the

<sup>3</sup> “Person Trips” are defined by the Nationwide Personal Transportation Survey as “a trip by any one person in any mode of transportation.” (NPTS’ “User’s Guide For The Public Use Data Files”, Appendix D, p. D-1).

increase in California of non-white populations will likely reduce the growth of travel, there is an increasing convergence of white and non-white travel patterns.

A similar pattern can be seen, for each racial/ethnic group, for the ratio of person miles traveled<sup>4</sup> to all groups combined as seen in Figure 8.

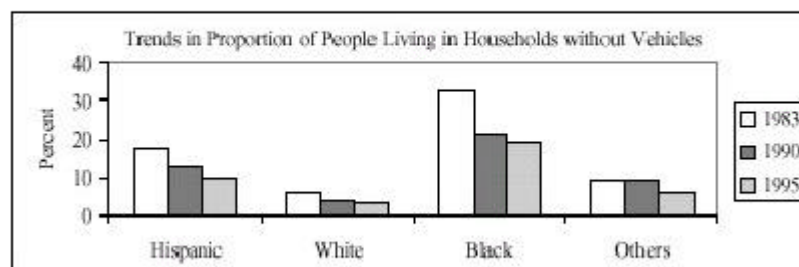
**Figure 8: Ratio of Per Capita Non-Work Person Miles Traveled by Racial and Ethnic Groups to All Groups Combined, 1983 to 1995**



Source: *Polzin, Chu, & Rey*, 1999: p. 29; from 1983, 1990, & 1995 NPTS

While average trip distance declined slightly for whites from 1983 to 1995, it increased by roughly 20% for non-whites during the same period. A similar pattern can be found in the trends of vehicle ownership over the same period. Figure 9 shows the proportion of people living in households without vehicles.

**Figure 9: Trends in Proportion of People Living in Households without Vehicles, 1983 to 1995**



Source: *Polzin, Chu, & Rey*, 1999: p. 29; from 1983, 1990, & 1995 NPTS

While the percent of people living in households without vehicles declined for all racial and ethnic groups during the period from 1983 and 1995, the declines for Blacks and Hispanics were dramatic, showing that there is a potential for convergence in the future between Whites and non-whites in vehicle ownership. As these figures converge, the propensity for non-whites to travel more and use automobiles for that travel will likely increase as well.

<sup>4</sup> “Person Miles Traveled” is defined as the total number of miles traveled on a per capita basis, over the period selected for study. For the NPTS, this period is generally a two day sample.

## Lifestyle, Culture and Mode Choice

Changing national and Californian lifestyles in recent history is clearly reflected in the choices we make in our travel. Changes in mode choice provide an excellent example of how our society has increasingly and steadily become dominated by the automobile and the lifestyles it allows. Table 2 shows a breakdown of mode share for the nation according to the U.S. Census for the period from 1970 through 1990.

**Table 2:**  
**Means of Transportation To Work: United States**

|                       | 1970  | 1980  | 1990  |
|-----------------------|-------|-------|-------|
| Private Vehicle       | 77.7% | 84.1% | 86.5% |
| Public transportation | 8.5%  | 6.4%  | 5.3%  |
| Motorcycle            | --    | 0.4%  | 0.2%  |
| Bicycle               | --    | 0.5%  | 0.4%  |
| Walked                | 7.4%  | 5.6%  | 3.9%  |
| Other means           | 2.9%  | 0.7%  | 0.7%  |
| Worked at home        | 3.5%  | 2.3%  | 3.0%  |

Source: U.S. Census Bureau, *Census of Population and Housing: 1970, 1980, 1990*.

Note: Motorcycle and Bicycle data categories were explicitly collected in the 1970 Census.

During the 20-year period covered in Table 2, use of private vehicles (i.e., the automobile) steadily rose in the U.S. from just under 78 percent to nearly 87 percent of all work trips. In contrast, the share of work trips for all other modes (except those that worked at home), fell. A similar pattern can be found in California over the same period. Table 3 shows the breakdown of mode share for California according to the U.S. Census for the period from 1970 through 1990.

**Table 3:**  
**Means of Transportation To Work: California**

|                       | 1970  | 1980  | 1990  |
|-----------------------|-------|-------|-------|
| Private Vehicle       | 83.5% | 84.7% | 86.2% |
| Public transportation | 5.4%  | 5.8%  | 4.9%  |
| Motorcycle            | --    | 1.1%  | 0.5%  |
| Bicycle               | --    | 1.1%  | 0.9%  |
| Walked                | 5.8%  | 4.5%  | 3.4%  |
| Other means           | 2.8%  | 0.8%  | 0.8%  |
| Worked at home        | 2.5%  | 1.9%  | 3.2%  |

Source: U.S. Census Bureau, *Census of Population and Housing: 1970, 1980, 1990*.

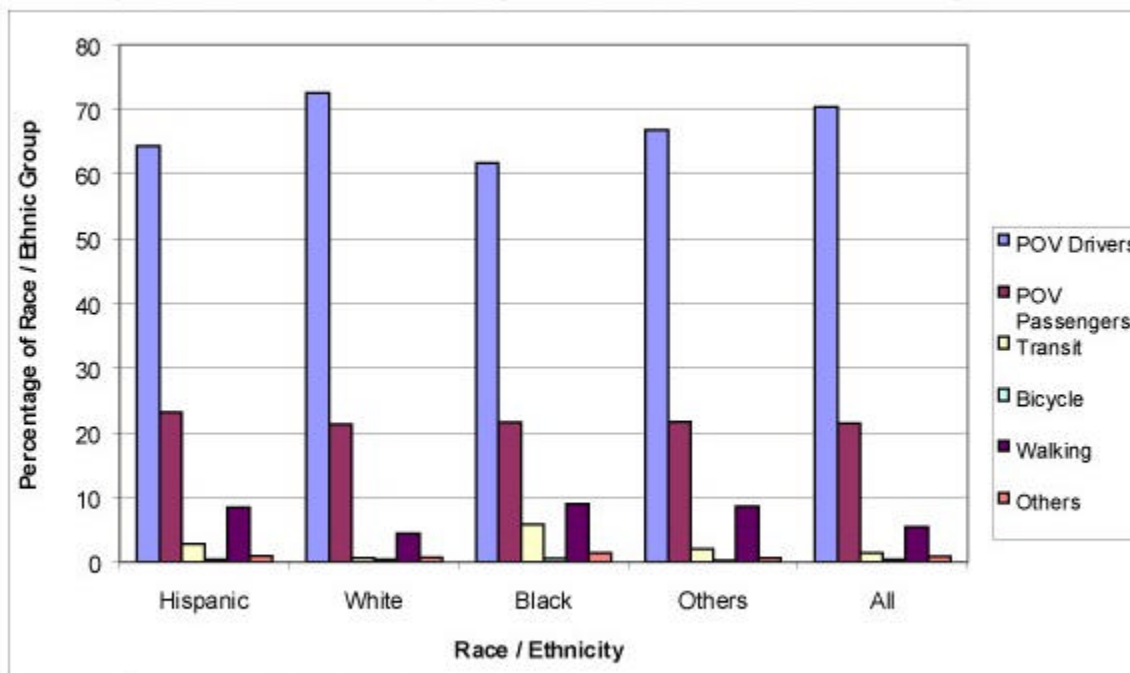
Note: Motorcycle and Bicycle data categories were explicitly collected in the 1970 Census.

Table 3 echoes the trends of the rest of the country, but with a few twists that reveal the California's unique place within the national culture. First, in 1970, California led the nation in the use of the automobile, with over 83 percent of the state's employed persons using it for their

commutes. It is not until the 1990 Census that the nation catches up with California, reaching virtually the same level of automobile use at around 86 percent of all commute trips. At the same time, transit use in the U.S. dropped quickly during the three census period shown from 8.5 to 5.3 percent of all commute trips, while transit mode share in California hovered around five to six percent of all commute trips. While transit mode share was significantly higher in 1970 for the U.S. than in California, by 1990 California and the nation had roughly the same transit mode share at around five percent of all commute trips. Again we see how California's mode choice provided some insight into the path that would be taken for the rest of the country. These trends were undoubtedly due in part to California's rapid development as a suburban state, which encouraged the use of the private automobile, and discouraged the use of transit. As the nation followed California's suburban path of development, it has followed its path in terms of mode share as well.

The differences seen in the previous section in terms of racial and ethnic travel patterns and automobile use also pertain to transit use. These patterns suggest that different ethnic and racial lifestyles and outlook can result in different modal choices. For example, according to Polzin, et al. (1999) non-whites are several times as likely to use transit as are whites for non-work travel and are more likely than whites to walk for non-work travel. While some of these differences may be explained in terms of differences in class or income, cultural influences and lifestyle choices likely play a role in the determination of mode choice as well. Figure 10 shows the breakdown of mode choice by racial and ethnic group for the nation.

Figure 10: Mode Choice by People 16 and Older for Non-Work Trips



Source: Polzin, Chu, & Rey, 1999: p. 26; from 1995 NPTS

While these demographic and lifestyle changes seem to point to the continued dominance of the automobile over other modes, there is some evidence in California that attitudes and lifestyles may be changing with respect to transit use. The story of transit use over the past fifty-plus years

has been its declining share of travel with respect to the automobile. This has been the case particularly with respect to California, where the image of the automobile is tightly interwoven with our conception of the “California Lifestyle.” However, the data shown in Table 4 reveals that there has been a rapid growth in transit ridership over the past five years.

**Table 4:**

| <b>Annual Changes in California Transit and Automobile Use</b> |                          |        |        |        |         |
|--|--------------------------|--------|--------|--------|---------|
|  | Annual Percentage Change |        |        |        |         |
|  | 1995-6                   | 1996-7 | 1997-8 | 1998-9 | 1999-00 |
| Transit Trips <sup>1</sup>                                     | 2.7%                     | 3.9%   | 3.6%   | 2.9%   | 5.2%    |
| Annual VMT <sup>2</sup>  | 0.6%                     | 2.7%   | 0.3%   | NA     | NA      |

**Notes:**

1 - 1995 through 1998 Transit Trips figures derived from National Transit Database data. 1998-9 figure derived from American Public Transit Association's Transit Ridership Report. 1999-00 figure derived from APTA Transit Ridership Report for the 1st quarter of 2000 vs. 1st quarter of 1999. Figures from APTA represent only those agencies surveyed by APTA (34 agencies for 1998-9 & 37 agencies for 1999-0).

2 - Annual Percentage Change in VMT for California calculated from data obtained from the FHWA's Highway Statistics Series for 1995 - 1998.

Table 4 shows that the percentage change in transit trips in California increased at an annual rate ranging from 2.7 to 5.2 percent. Furthermore, the rate of increase in transit trips seems to be growing as well, with the 1999 to 2000 year figures showing a greater than five percent growth. These figures can be compared to the annual vehicle miles traveled statewide, showing that the growth of transit use is increasing faster than the growth of auto use. Even in the year with the highest recorded growth in VMT during the 1996 to 1997 year, California's transit agencies recorded a faster rate of growth in ridership than was recorded for automobile use.

However, an important caveat to Table 4 is that even though transit use may be growing faster in terms of a rate of change, the absolute change in transit use may be smaller than that of automobile use. In other words, transit may be growing at 5 percent a year compared to 2.7 for cars, but the actual increase in automobile use may be higher since auto use is starting at a much larger level of use. To compare absolute changes in the use of transit and automobile use, a comparable metric must be used for both modes. Table 5 shows the annual changes in Transit Passenger Miles compared to the annual changes in Vehicle Miles Traveled.

**Table 5:**  
**Annual Absolute Changes in California Transit and Automobile Use**

|                                      | Annual Absolute Change |           |         |
|--------------------------------------|------------------------|-----------|---------|
|                                      | 1995-6                 | 1996-7    | 1997-8  |
| Transit Passenger Miles <sup>1</sup> | 162,616                | 356,935   | 327,129 |
| Annual VMT <sup>2</sup>              | 1,672,000              | 7,569,000 | 830,000 |

**Notes:**

1 - 1995 through 1998 Transit Passenger Miles Percentage Change figures derived from National Transit Database data.

2 - Annual Percentage Change in VMT for California calculated from data obtained from the FHWA's Highway Statistics Series for 1995 - 1998.

Table 5 reveals that while transit use may be growing most rapidly in percentage terms, the absolute growth in automobile use continues to surpass transit on an annual basis. Nevertheless, the gap between auto and transit miles of service narrowed significantly in the 1997-8 year, with transit gaining almost half as many passenger miles as automobiles gained in VMT. Thus, with the rapid growth seen in transit use over the past five years in percentage terms, and the slowing growth of automobile VMT, we may be witnessing a fundamental shift in California towards transit.

Since the growth of automobile use has been associated with the growth of the suburbs, the dispersal of travel origins and destinations within metropolitan areas, and the decline of transit, in what areas of our state is transit ridership growing and why? We can start by looking at a limited geographical area—a single metropolitan region.

Table 6 shows the percentage change in transit ridership in the San Francisco Bay Area.



**Table 6:**

**Annual Changes in Bay Area Transit and Automobile Use**

|                                  | Annual Percentage Change |        |        |        |         |       |
|----------------------------------|--------------------------|--------|--------|--------|---------|-------|
|                                  | 1995-6                   | 1996-7 | 1997-8 | 1998-9 | 1999-00 | Total |
| Transit Trips <sup>1</sup>       | 0.9%                     | 2.6%   | 0.7%   | 2.4%   | 6.4%    | 13.0% |
| Average Weekday VMT <sup>2</sup> | 2.5%                     | 2.5%   | 2.5%   | 2.5%   | 2.5%    | 12.6% |

**Notes:**

1 - 1995 through 1998 Transit Trips figures derived from National Transit Database data. 1998-9 figure derived from American Public Transit Association's Transit Ridership Report. 1999-00 figure derived from APTA Transit Ridership Report for the 1st quarter of 2000 vs. 1st quarter of 1999. Figures from APTA represent only the following Bay Area transit agencies as available: Eastern Contra Costa Tr. Auth., Fairfield/Suisun Tr., AC Transit, Central Contra Costa Tr., Golden Gate Tr., CalTrain, BART, SamTrans, ACE, & Santa Clara Valley Tr.

2 - VMT for Bay Area based on five year total VMT from 1995 through 2000 obtained from Metropolitan Transportation Commission's WWW site at [www.mtc.ca.gov/datamart/stats/vmt9095.htm](http://www.mtc.ca.gov/datamart/stats/vmt9095.htm). 5-year % change calculated and divided by five to create an annualized % change figure.

While the growth in transit ridership kept pace with actual and projected growth of vehicle miles traveled for the Bay Area, at the Bay Area level of aggregation, there is not as much of a clear case to be made for the notion that transit ridership is regaining some of the ground it has previously lost to the automobile in terms of mode share. In most of the years spanning from 1995 through 1999, transit ridership growth oscillated between less than 1 percent to more than 2.5 percent. These data suggests that transit ridership in the Bay Area is growing at a slower rate than the state as a whole, further suggesting that the growth seen at the state level might not be driven by growth of traditional transit markets in the larger cities such as San Francisco or Los Angeles. Nevertheless, for the first quarter of 2000, a similarly dramatic increase in the rate of growth of transit ridership was seen to that seen in the state as a whole.

To identify the source of growth found in the state's transit ridership, Table 7 disaggregates transit ridership statistics to the transit agency level for the Bay Area and provides the six transit agencies with the highest rates of ridership growth for which data was available.

**Table 7:**

**High Growth Bay Area Transit Agencies from the First Quarter of 1999 to the First Quarter of 2000**

| Transit Agency                 |                                   | %                        | Absolute               |
|--------------------------------|-----------------------------------|--------------------------|------------------------|
|                                |                                   | Ridership Change 1999-00 | Change (000's) 1999-00 |
| Suburban Transit Agencies      | Eastern Contra Costa Tr Auth      | 6.3%                     | 31.6                   |
|                                | Central Contra Costa TA           | 5.0%                     | 56.8                   |
|                                | Golden Gate Bridge, Hwy & TD      | 4.7%                     | 124.8                  |
| Heavy & Commuter Rail Agencies | Peninsula Corridor JPB (CalTrain) | 18.1%                    | 377.1                  |
|                                | San Francisco Bay Area RTD (BART) | 15.6%                    | 3,257.8                |
|                                | Altamont Commuter Express (ACE)   | 50.0%                    | 49.3                   |

Source: APTA Transit Ridership Report 1st Q 2000.

Table 7 shows that the transit agencies with highest rates of growth can be classified into two groups: 1) suburban transit (mostly bus) agencies that serve the peripheral areas of the Bay Area, and 2) heavy rail and commuter rail agencies, which also primarily serve suburban residents commuting to central city or central Bay Area job centers. These relationships hold when we consider the absolute (or actual) change in ridership during this period as well, with suburban bus and suburban to core rail services showing the highest growth in ridership. However, the differences between the mature rail services (BART and CalTrain have both been in operation for more than two decades, while ACE has been operating for under five years) and the suburban bus agencies are stark. While BART and CalTrain made ridership gains in the six and seven digit range (3,257,800 extra riders for BART and 377,100 for CalTrain) from the first quarter of 1999 to the first quarter of 2000, the two Contra Costa County, high-growth rate transit agencies posted gains in the five-digit range (56,800 extra riders for Central Contra Costa and 31,600 for Eastern Contra Costa). The only bus transit agency to compete with the rail agencies in the Bay Area was the Golden Gate Bridge Transit, with a gain of roughly 125,000 riders when compared to the previous year's first quarter. These data would suggest that there is a change in mode choice taking place in California's suburbs. Due to the growth of automobile congestion, it would seem that suburban commuters are looking for other alternatives. Current, relatively high levels of investment in transit infrastructure are capturing some of this shift, thereby creating the potential for the growth of a transit-oriented suburban lifestyle in California, something not seen since the pre-World War Two era.

**Immigrant Lifestyles and Travel Behavior**

So far, we've identified several demographic characteristics that have substantial implications for lifestyle choices and travel behavior. Demographic differences are often indicators of cultural differences, which we have argued, have substantial importance for lifestyle choice and travel behavior as well. Cultural lifestyle is partially a result of upbringing and geographical/cultural context. People raised outside the U.S. have a different set of cultural and lifestyle preferences than those born and raised in the U.S. When immigrants come to the U.S., the process of integration into the larger culture can be slow. Therefore, we can assume that non-U.S. cultural

and lifestyle preferences for travel behavior will remain intact with immigrants for a period of time after they arrive in this country.

Research by Myers (1996) using census for journey to work data indicates that recent immigrants to Southern California were far more likely to use public transit than native-born people. Myers also notes that this difference in mode choice has a profound effect on the transit business in Southern California, with the share of transit commuters who are recent immigrants increasing from roughly 27 to 42 percent between 1980 and 1990. However, after a period of ten years following the date of arrival in the country, immigrants' travel behavior begins to change markedly. Their transit use falls and solo driving increases to similar levels to the native-born population.

These findings indicate that the process of acculturation in the U.S. is strong, changing immigrants from transit-oriented travelers to automobile driving Californians in ten years. However, to the extent that these immigrants continue to cluster in California's largest cities, and to the extent that immigration to the State continues to be a large proportion of our population growth, we can expect that our cities will maintain or increase their levels of transit mode share.

Furthermore, California's large immigrant population serves to lengthen this period of acculturation for immigrants since immigrants often remain within their ethnic communities while in the U.S. Therefore, immigrant travel behavior in cities may differ from the dominant culture for a long period after arrival.

## **Conclusions**

There are many implications of lifestyle choice for travel behavior in California. This paper attempts to outline a few of the most important and well-studied ones, with an eye towards follow-up research and further illumination. Among the most important findings is the importance of non-work travel, consumer culture, ethnic and racial cultural identity, gender, and age all have profound implications for the lifestyle choices we make, the activities we engage in, and the consequent transportation behaviors.

Of particular importance, it appears that while national trends indicate that race, age, and gender differences in travel behavior are decreasing, and the automobile will likely continue to dominate our mode choice as a result, California's urban and suburban areas are increasingly turning to public transit due to traffic congestion and large immigrant and non-white populations. The degree to which transit will come to regain some of its modal share of total travel in California's metropolitan areas remains to be seen and is an important subject for further research.

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