

CHAPTER FIVE: DESCRIBING WOMEN'S TRAVEL BEHAVIOR

Key Findings

- Women's daily rate of tripmaking has increased faster than men's. From 1983 women's rate increased 9 percent vs. a 5 percent increase for men.
- Men's trip rate increase was more evenly distributed over age groups, whereas women's show significant shifts among age groups with greatest growth in the 30- to 39-year-old age group.
- Because men's average trip lengths in all purpose categories still substantially exceed women's, men's average miles of travel still exceed women's.
- Purpose shifts also were significant. The big jump in the share of trips for personal business purposes was most pronounced among women, with that purpose rising to about 23 percent of all women's trips contrasted to men's rate of about 20 percent. Almost all of the increase in women's trip rate can be attributed to the increase in this activity.
- Increases in women's access to vehicles and possession of driver's licenses have increased their use of private vehicles and reduced their use of all alternatives.



The changing behavior and roles of women in society have had important impacts on travel and transportation. These changes have manifested themselves in the level of travel activity, purposes of trips, and choices of mode of travel and trip length, among others.

Some of the societal changes occurring cause women's travel behavior to be more like that of men, but other changes create disparities or increase existing differences between men and women's travel characteristics.

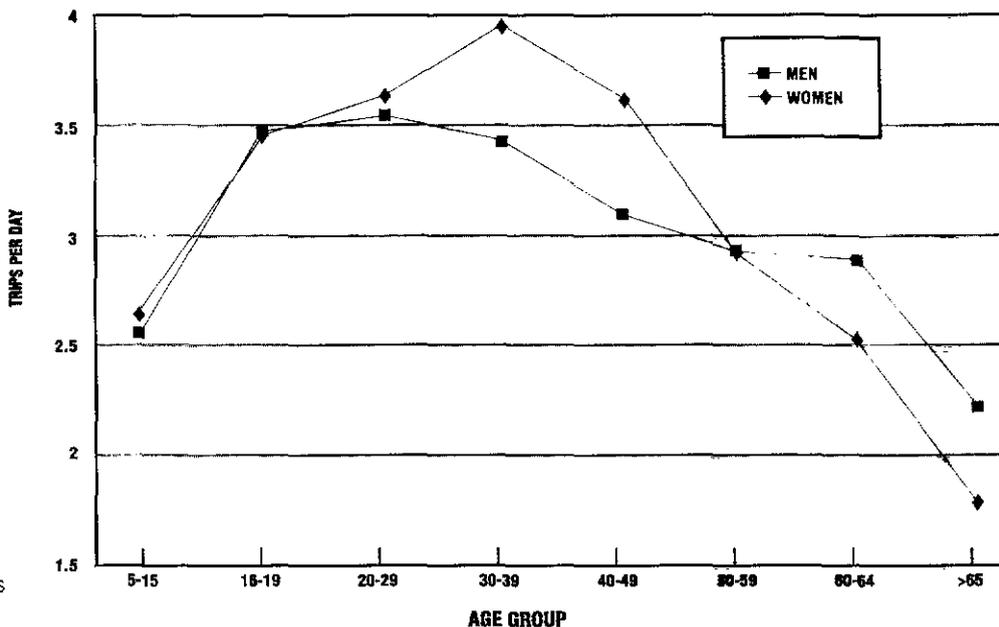
In 1983, men and women had approximately the same per capita trip rate of 2.88 trips per day for persons over 5 years of age. In 1990, the new trip rate for men was 3.04 trips per day and the rate for women was 3.13, a 9 percent increase from 1983 for women versus a 5 percent increase for men.

Changing Trip Rates

Among the significant changes that mark an interesting departure point between men and women's travel behavior are the increases in tripmaking per capita. In 1983, men and women had approximately the same per capita trip rate of 2.88 trips per day for persons over 5 years of age. That rate increased for both groups between 1983 and 1990, but increased considerably more rapidly for women. In 1990, the new trip rate for men was 3.04 trips per day and the rate for women was 3.13, a 9 percent increase from 1983 for women

FIGURE 26

Women's Trips per Day Contrasted to Men's
by Age Group
1990



Source: NPTS

versus a 5 percent increase for men. Certain aspects of the pattern of these changes are pertinent.

The first of these is that the trip pattern for women varies from men's in a number of ways. Figure 26 shows the 1990 patterns for tripmaking by age group for men and women. Of note is that, in the early age groups, young people's trip rates do not vary by gender. In the twenties' age group, women's tripmaking tendency increases faster than men's, is greater than men's throughout the middle years, but returns to the same rate as men's in the 50 to 59 age group. In the later years, men's trip rates exceed women's although both are very low. One can conjecture about these patterns, relating them to child-rearing duties and household activities.

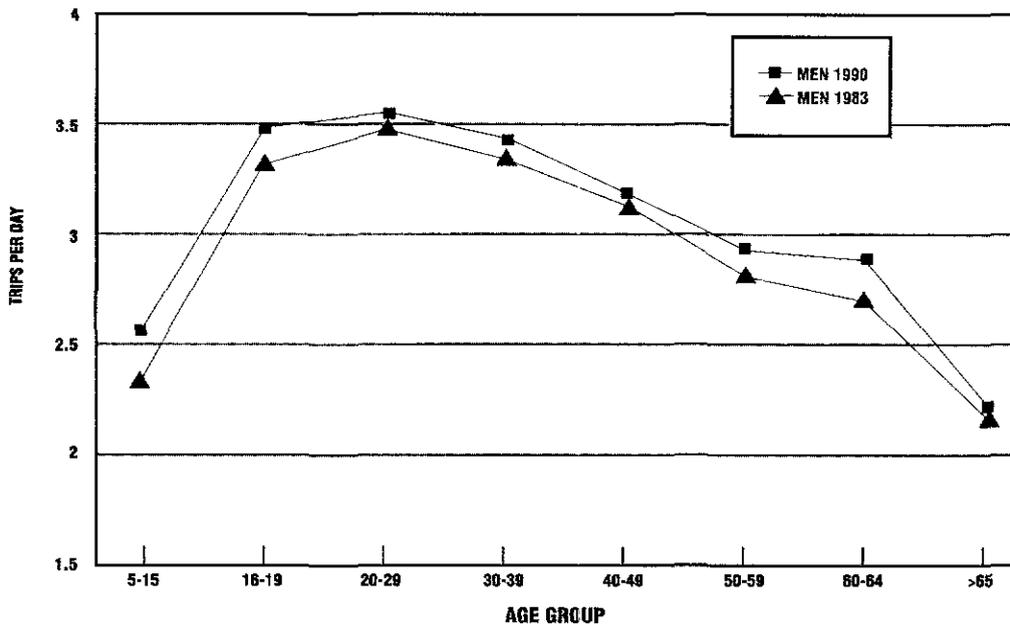
Further insight can be gained by looking at the individual trends from 1983 to 1990 for men and women. The pattern of men's trip rate increase by age group, shown in Figure 27, is remarkably uniform. The overall increase in tripmaking for men is uniformly distributed among all age groups.

The trend pattern for women, by contrast, shown in Figure 28, is much more dramatic and more interesting. There are big increases among the younger and older populations in trip rates, but the most significant factor is the increase in tripmaking by women 30 to 49 years old. The 30- to 39-year-olds increased their tripmaking by 8 percent per person, and women in their 40's increased by 14 percent per person. Again, conjecture might suggest work and child-related changes in behavior patterns.

Finally, and perhaps most pertinently, stratification by possession of a driver's license demonstrates the substantial impact of the availability of a driver's license on trip rates. Comparison of 1983 and 1990 daily trip rates for females, differentiating those with licenses from those without, indicates that the trip rates within the groups have, in fact, changed little. From the data in Table 1, it appears that the changes in overall tripmaking were the product of the change in the

FIGURE 27

**Trends in Men's Trips per Day
by Age Group
1983 & 1990**



Source: NPTS

proportion of females with licenses as a share of the total female population. This is in substantial contrast to male rates, which grew significantly from 1.7 to 2.2 trips per day for the no license group and from 3.1 to 3.4 for the license holders. Thus, men's overall trip rate was much more a product of changing trip rates than of changing proportions of men with licenses.

If women's trip rates are stratified by driver's license availability, an important revelation occurs. According to the NPTS, there was virtually no change in women's trip rates between 1983 and 1990 when corrected for license availability. Women without licenses made 1.7 trips per day in 1983 and in 1990. Women with driver's licenses made 3.5 trips per day in 1990 compared to 3.4 per day in 1983.

Note that the rates shown here for those with no license have been modified to exclude those under driving age. Thus, the differences are not attributable to different age categories included in the surveyed groups.

Trip Purpose Trends

Looking at women's trip purpose pattern is further revealing of differences in behavior. Figure 29 shows the pattern of trip purposes by age group. The importance of work and work-related travel is evident with its signature pattern, but the importance of personal business trips is also striking. Personal business trips are strongly evident and seem to reach their peak in the 30 to 39 age group. Personal business trips include visits to doctors, dentists, banks, cleaners, and other service establishments, as well as trips to give others a ride to a destination (i.e., serve passenger trips). The personal business category changed dramatically from 1983 to 1990, rising from 17 percent to over 23 percent of women's travel. Men's personal business travel also grew, but not quite as rapidly as women's, from 15 percent of travel to about 20 percent. Women's work trips as a purpose grew slightly as a share of travel and actually declined in share for men. All other purpose categories, particularly visits to friends and relatives

For women, changes in overall tripmaking were the product of the change in the proportion of females with licenses as a share of the total female population. In contrast, men's overall trip rate was much more a product of changing trip rates than of changing proportions of men with licenses.

TABLE 1

**Women's Daily Trip Rates
by Availability of a Driver's License
(trips per day)**

	Trip Rate Without License	Trip Rate With License	Percent Licensed
1983	1.71	3.44	76.2%
1990	1.70	3.49	84.6%

and recreational travel, declined or barely remained stable. These, of course, are relative changes in shares against a backdrop of increasing overall tripmaking.

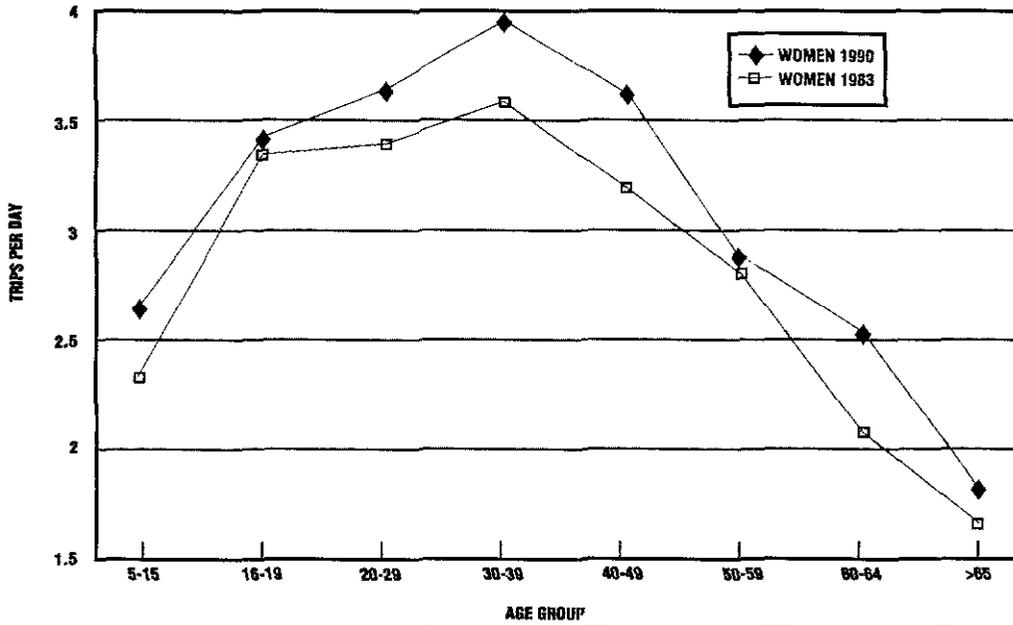
When the trip purpose stratification is reviewed by trip rate per day, the significance of the personal

business factor is overwhelming. Women without licenses had almost identical trip rates when 1990 is compared to 1983, exhibiting extraordinary stability, as shown in Table 2.

With respect to the pattern for license holders (Table 3), the change is in the trip rate for

FIGURE 28

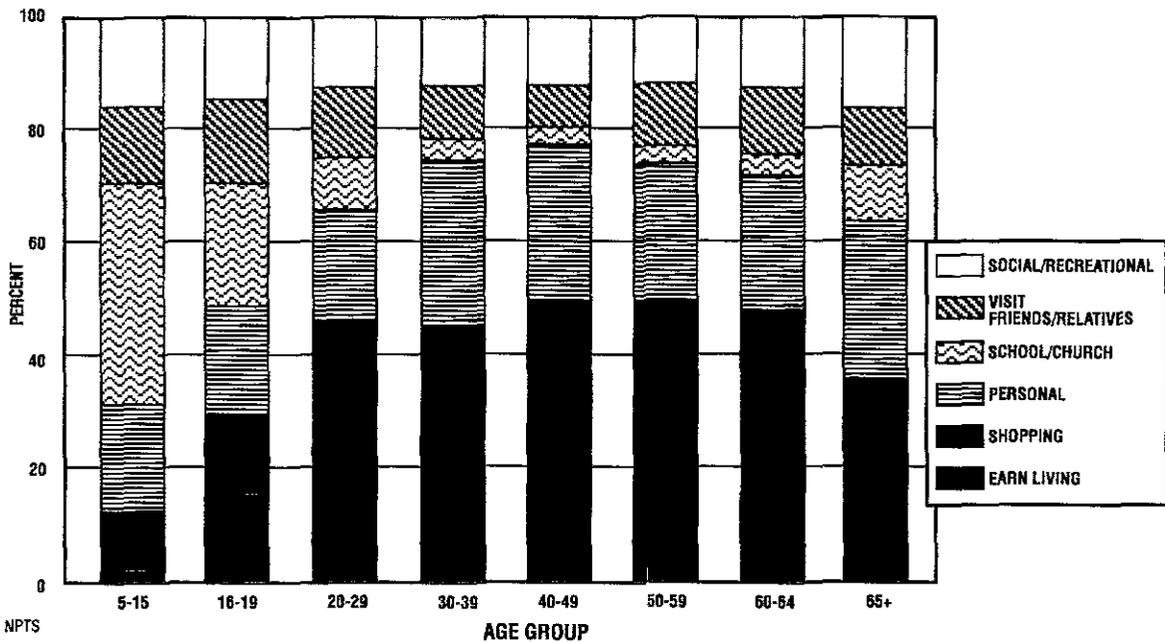
**Trends in Women's Trips per Day by Age Group
1983 & 1990**



Source: NPTS

FIGURE 29

**Women's Trips by Purpose by Age Group
1990**

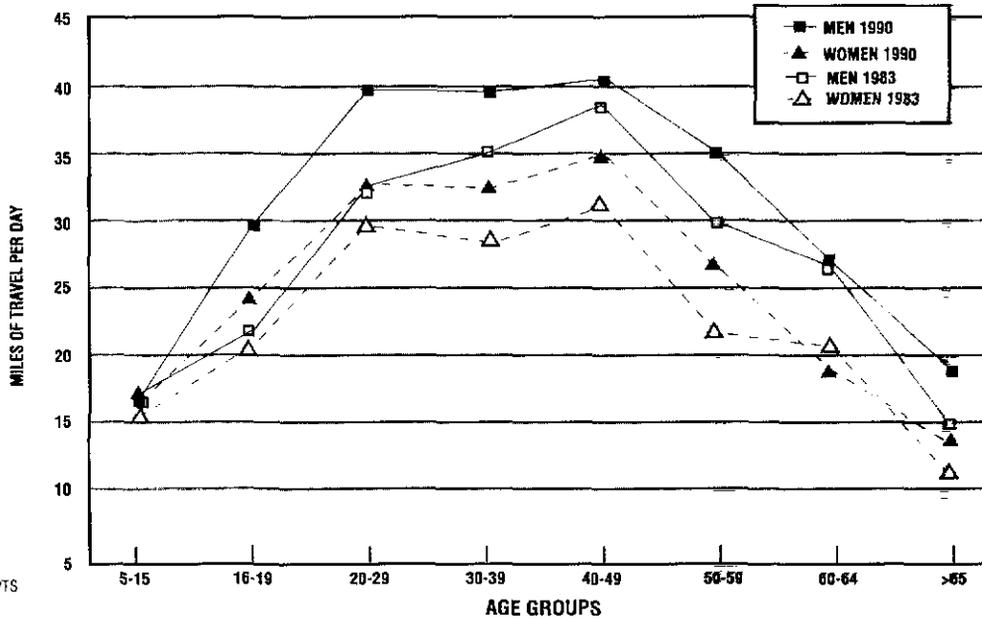


Source: NPTS

Of the 13 million new license holders arriving on the scene since 1983, more than 8 million, 61 percent, were women.

FIGURE 30

**Travel per Day Broken Down by Age and Sex
1983 & 1990**



Source: NPTS

personal business; all other purposes were either stable or declining. Men's patterns are almost identical to women's in this respect, with effectively all the increase in trip rate resulting from growth in personal business rates.

Trip Lengths

An important major distinction between women's and men's travel is a product of the overall length of their trips. Depicted in Figure 30 is the fact that men's miles of travel each day exceed women's in almost all age groups except the childhood years. As can be seen in the figure, even men's 1983 travel exceeds women's current travel. This results from

the large differences in average trip lengths between the groups, overcoming the fact that women's tripmaking rates exceed men's. Part of this certainly is a product of the differences in travel purposes identified earlier. There is no consistent pattern of reduction in the disparity between men's and women's trip lengths. Specifically, however, in regard to work trips, the growth in women's trip lengths has tended to close the gap with men's.

Driving and Transit Use

A major element in the changing character of women's travel behavior that is treated under other topics deserves mention here. It involves a whole

TABLE 2

**Women With No License
Trip Rate Trend by Purpose
(trips per day)**

Purposes	1983	1990
Earn a Living	.23	.27
Family and Personal Business	.69	.69
Civic, Education, Religious	.26	.23
Social/Recreational	.50	.41
Other	.03	.10
All	1.71	1.70

TABLE 3

**Women With License
Trip Rate Trend by Purpose
(trips per day)**

Purposes	1983	1990
Earn a Living	.75	.74
Family and Personal Business	1.43	1.69
Civic, Education, Religious	.27	.24
Social/Recreational	.93	.80
Other	.06	.02
All	3.44	3.49

complex of activities characterized by increased use of driver's licenses among women, increasing availability of private vehicles to women, and their consequent reduced use of mass transit and other alternatives to private vehicles. Since 1965, the number of women with driver's licenses has doubled, and the availability of a license is now about 85 percent for women, contrasted to 77 percent in 1983. This number is still less than the number of licenses available to men—roughly 92 percent of men were licensed in both time periods. Of the 13 million new license holders arriving on the scene since 1983, more than 8 million, 61 percent, were women.

The key point is that dramatic changes accompany the presence of a driver's license among women. As noted earlier, effectively all of the increase in the overall trip rate must be attributed to the increasing percentage of women with a license to drive. Tripmaking is more than twice as frequent for women drivers compared to the women of driving age without licenses, and average trip lengths jump substantially. As a result, women with licenses average three times the daily miles of travel of women over 16 without licenses. Thus, for every 1 percent shift from nondriver to driver in the female population, total travel jumps almost 10 billion miles per year. As expected, transit use drops significantly—women with licenses use transit for about 1 percent of their trips, while the transit share of trips for women without licenses is over 13 percent.

The data indicate that men's travel behavior with respect to mode has perhaps reached a relatively stable condition while women's is still evolving. Men's use of walking and bicycling remained stable from 1983 to 1990, declining somewhat in the case of walking; women's use of these alternatives, however, changed substantially. In the case of bicycles, women's shares had been half of men's in 1983, but dropped to a third of men's by 1990. Walking, where the share of women's travel was over 9 percent compared to under 8 percent for men, shifted to almost identical levels of around 7.2 percent.

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Further Work

This discussion of women's travel behavior just begins the analysis of this critical area. There are important and exciting areas for further work. The interactions between licenses and tripmaking are very crucial as are their effects on choice of mode. The whole area of personal business trips needs careful treatment. Stratification of these trips by persons in the vehicle, by age, would be very revealing. Trip length trends also need careful consideration in substantial detail. Variations in trends of tripmaking behavior and other characteristics of travel by age will be very useful as well. Is the boom in women's travel coming from women of working age caring for families, for example, or from young women of school age driving for the first time?

FACTORS IN GROWTH OF PERSONAL TRAVEL

