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## Chapter 3

# Trip Length in Distance and Time

This chapter discusses average lengths and distribution of trip length. Trip length is examined both in time and distance. The major focus is on trips to and from work. Other variables examined include mode of travel, vehicle occupancy rates, gender of travelers, urban area size, and location in urbanized and metropolitan areas. Comparisons are made between 1983 and 1990 survey data.

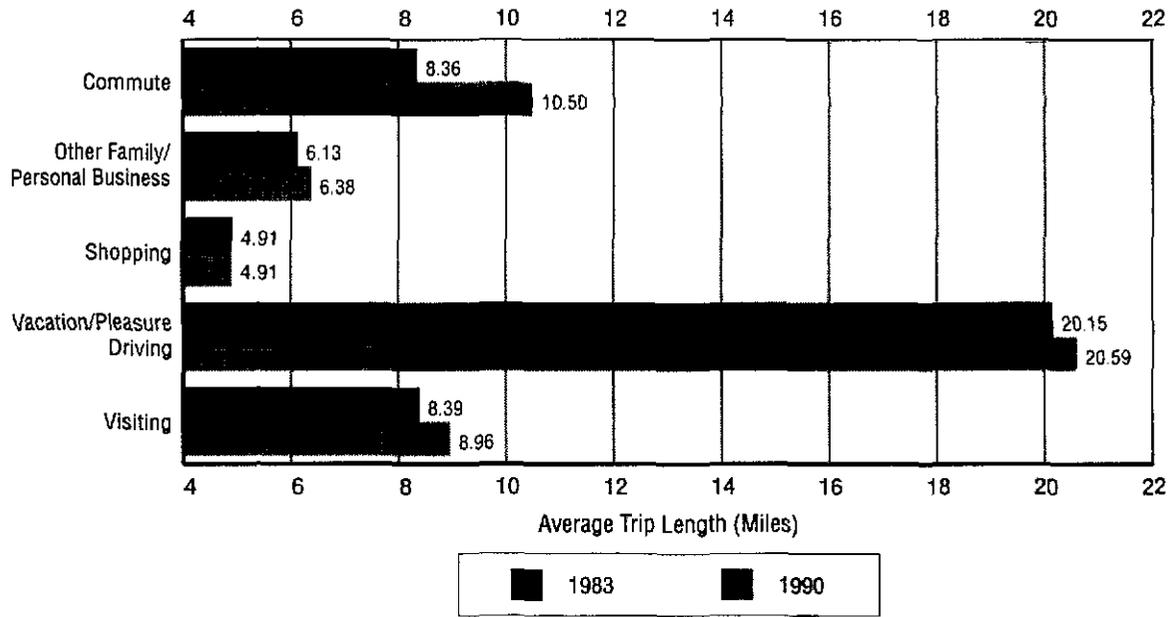
The information is for trips of 75 miles or less.

### Key Findings

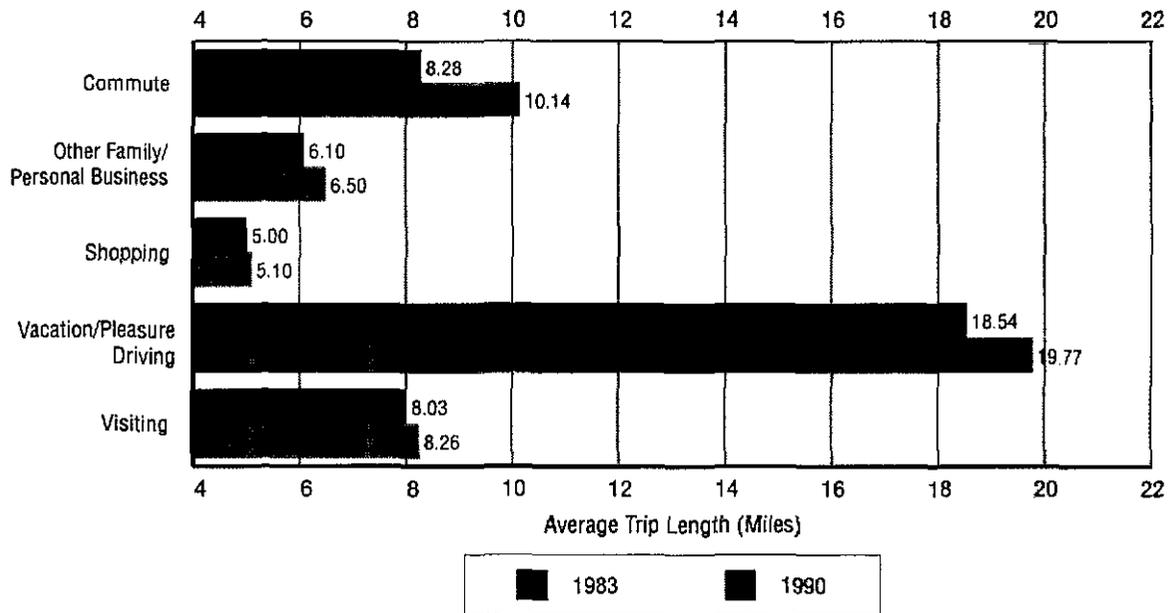
- The average length of trip in 1990 was 7.27 miles, up by 0.58 mile from 1983. The average 1990 rural trip was longer than the average urban trip.
- The average commute trip in 1990 took 18.9 minutes. The shortest average commute time was in small urban areas; the longest was in large urban areas with rail transit.
- Although the average length in distance of trips to and from work increased 22.4 percent from 1983 to 1990, the average commuting time increased only 6.4 percent. These facts indicate that the average speed of commuting trips increased.
- The proportion of commute trips of 8 miles or longer increased, while the proportion of trips of 1 mile or less decreased. Intermediate-range commute trips remained relatively constant.
- Except for walking and taxi travel modes, commuting by auto took the least amount of time among the other travel modes. The average rail trip to and from work was the longest in terms of both travel time and trip length.
- Although the average commuting trip by bus transit and private vehicle are similar in distance, the bus trip takes nearly twice as much time.

**FIGURE 3-1**  
**Average Trip Length by Trip Purpose**

**Privately Operated Vehicles**



**All Modes**



*Note: Excludes trips greater than 75 miles.*

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## **Trip Lengths are Increasing**

As shown in Table 3-1, the average length of a 1990 trip (7.27 miles) was 9 percent greater than the average length of a 1983 trip (6.69 miles).

Average trip lengths for all modes, as displayed in Table 3-1, are marginally less than the average of trips in privately operated vehicles, as displayed in Table 3-2. This is due to both the predominance of private vehicle travel, as discussed in Chapters 1 and 2, and the shorter trip lengths of bus, taxi, bicycle, and walking modes, as displayed in Table 3-3.

## **Major Increase in Commute Distance**

Except for work-related business travel, all other types of trips increased in distance from the 1983 to 1990 period. The average trip to and from work by all modes increased the most, from 8.28 miles to 10.14 miles, or 22.4 percent, as people continue to locate their homes farther from their job sites. Commute trips by POV increased by 25.6 percent. Figure 3-1 shows the 1983 to 1990 changes.

## **Commute Trips Average over 10 Miles**

Table 3-2 focuses exclusively on 1983 and 1990 trips by privately operated vehicles. The length of the average commuting trip in 1990 was 10.5 miles. This average distance was second longest of the nine basic types of 1990 trips by POVs. The shortest was the 4.91 mile shopping trip.

Most types of POV trips increased in distance over the 1983 to 1990 period. Shopping trips remained at 4.91 miles, an indication that retail establishments are decentralizing in pace with people and their homes.

## **Rail Trips the Longest; Walking the Shortest**

At 14.68 miles, the average 1990 rail/subway trip was almost twice the length of the average trip by private vehicle, at 7.89 miles. Rail trips in Table 3-3 include subway and elevated rail transit trips, and commuter railroad trips. Trips by bus were only 0.97 mile shorter than trips by private vehicle. Walking trips averaged just under two-thirds of a mile (0.64 mile).

## **Shorter Trips in Small Urban Places; Longer in Rural Areas**

As shown in Figure 3-2 and Tables 3-1 and 3-2, the average trip by residents of urban places of fewer than 1 million population is shorter in distance than the average of the Nation. Conversely, the average length of a trip by rural residents is longer than the average of the Nation.

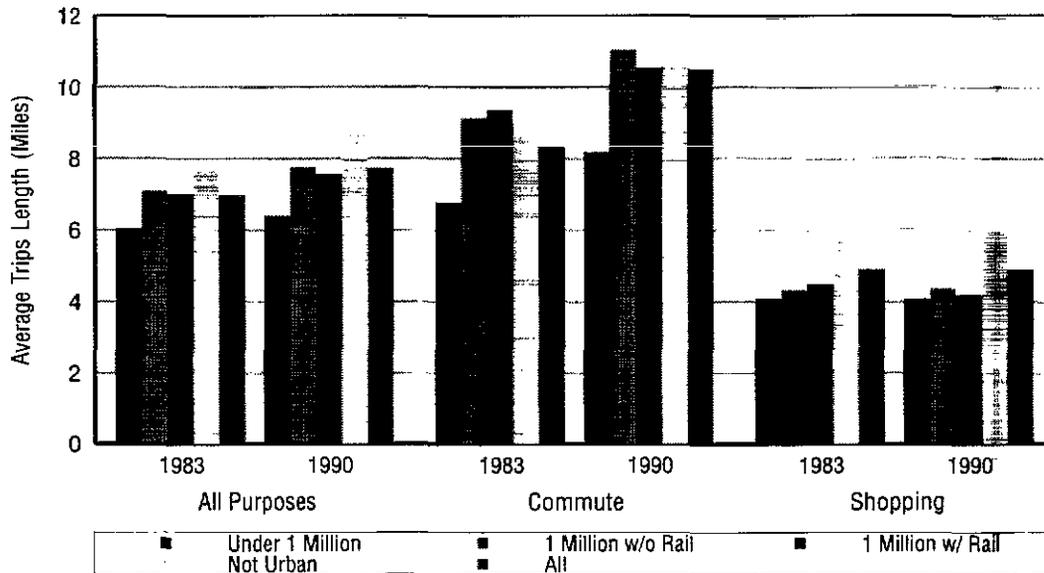
## **Males Make Longer Trips**

Table 3-4 shows the differences in 1983 and 1990 trip lengths of male and female residents of urbanized areas. The greatest difference is in 1990 private vehicle trips, where the average trip for males (8.10 miles) was 29.8 percent longer than the average trip for females (6.24 miles). Furthermore, each trip purpose shows the same pattern, with men traveling longer distances than women.

There was little difference by gender in average shopping trip distance (0.36 mile). For trips to and from work, however, males drove 2.70 miles farther than females on average.

Although both the average male and female trips increased in distance from 1983 to 1990, the average male trip grew at a faster rate for

**FIGURE 3-2**  
**Average Trip Length by Trip Purpose**  
**(Urban Size Group)**



*Note: Excludes trips greater than 75 miles.*

both all-mode and POV travel. Table 3-4 shows that while the average male trip in privately operated vehicles increased by 0.85 mile, or 11.7 percent, the average female private vehicle trip increased 0.40 mile, or 6.8 percent.

**Urban Size Influences Commuting Trip Distance**

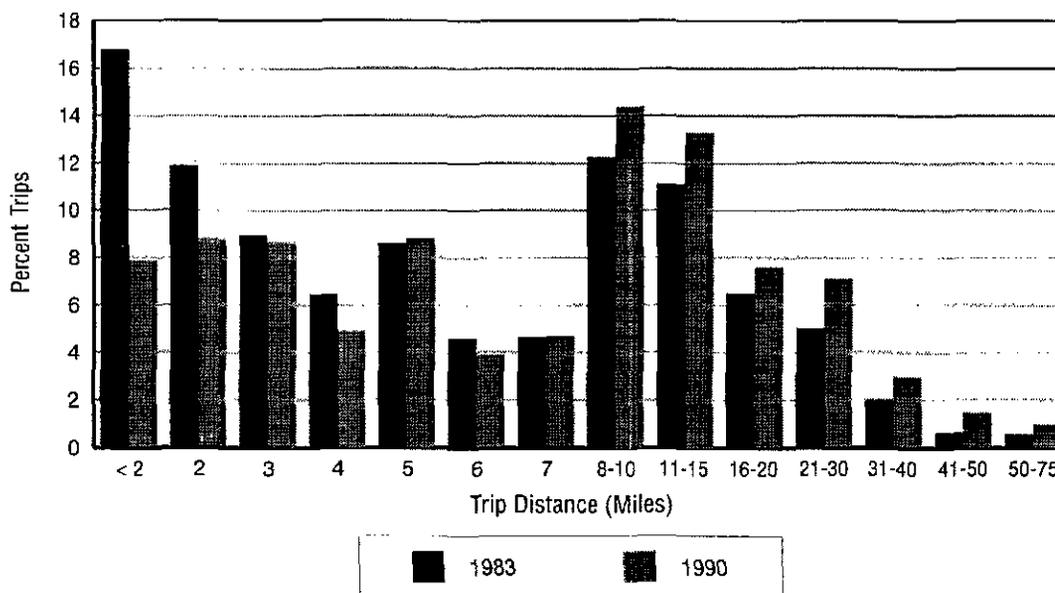
The influence of urban size on commuting trip distance in privately operated vehicles is shown in Table 3-5. About one-third (33.75 percent) of trips by residents of urban areas under 1 million population were 3 miles or fewer than in 1990. In the larger urban groups, trips of 3 miles or fewer were only 27.41 percent of the trips for the group with rail service and only 26.61 percent for the group without rail service.

Conversely, only 10.75 percent of the trips by residents of smaller urban areas were more than 16 miles, while such trips represented 21.83 percent of all trips for the urban group with rail service and 20.99 percent for the urban areas without rail service.

**Most Commuting VMT is Generated by Long Trips**

Figure 3-3 and Table 3-6 show the proportions of total VMT by 15 groupings of commute trip distance. Trips of more than 8 miles account for 83.5 percent of 1990 commute VMT. This percentage would be higher if trips of more than 75 miles had not been excluded from this analysis.

**FIGURE 3-3**  
**Vehicle Commute Trips by Trip Length**  
**(Privately Operated Vehicles)**



*Note: Excludes trips greater than 75 miles.*

### Commuting by Rail/Subway is Longest

As shown in Table 3-7, the average rail commute was 16.90 miles, or 66.7 percent longer than the 10.14 mile average for all commuting trips by all modes.

When compared with the data in Table 3-3, it is apparent that commuting trips are generally longer than the average of all trips. For example, the average rail commuting trip of 16.90 miles is 2.22 miles longer than the average of all types of rail trips.

Table 3-7 also demonstrates that residents of smaller urban areas generally have shorter distance commute trips than residents of areas with more than 1 million population.

### Passenger Van Commuting is Longer Than Auto Commuting

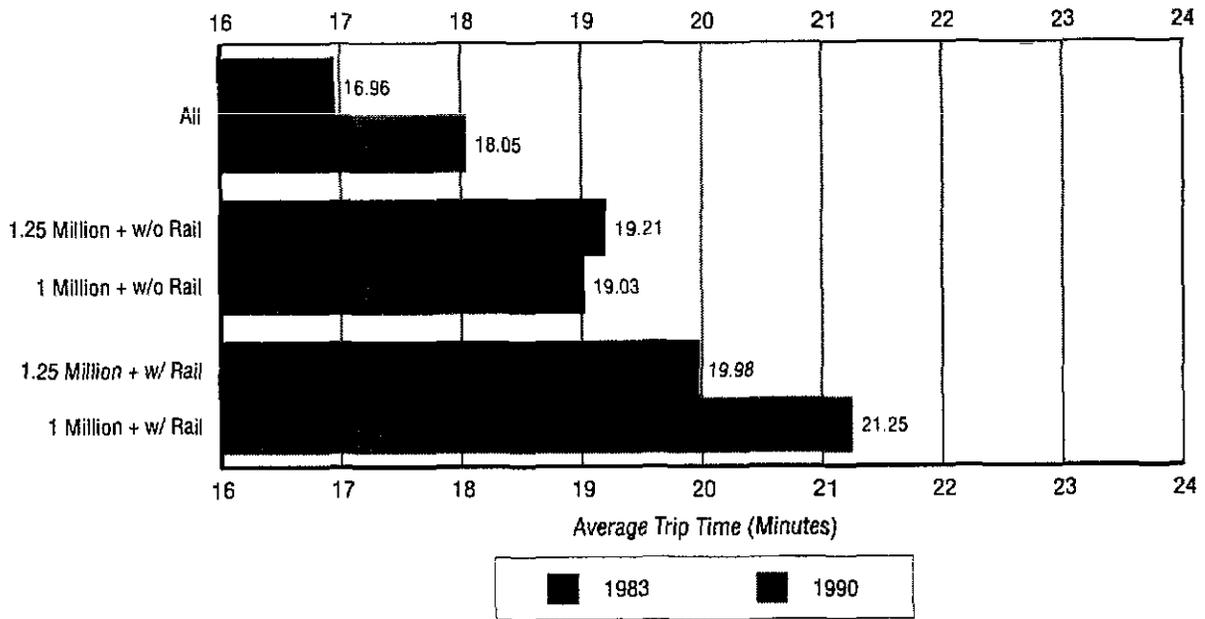
Table 3-8 shows that at 11.04 miles, the average commute trip in a passenger van was almost 1 mile (0.96 mile) longer than the average trip in an automobile. Table 3-8 also shows that trips in vanpools with five or more occupants are likely to be considerably longer than trips in carpools with five or more occupants.

### Commuting Time Increased 6 Percent

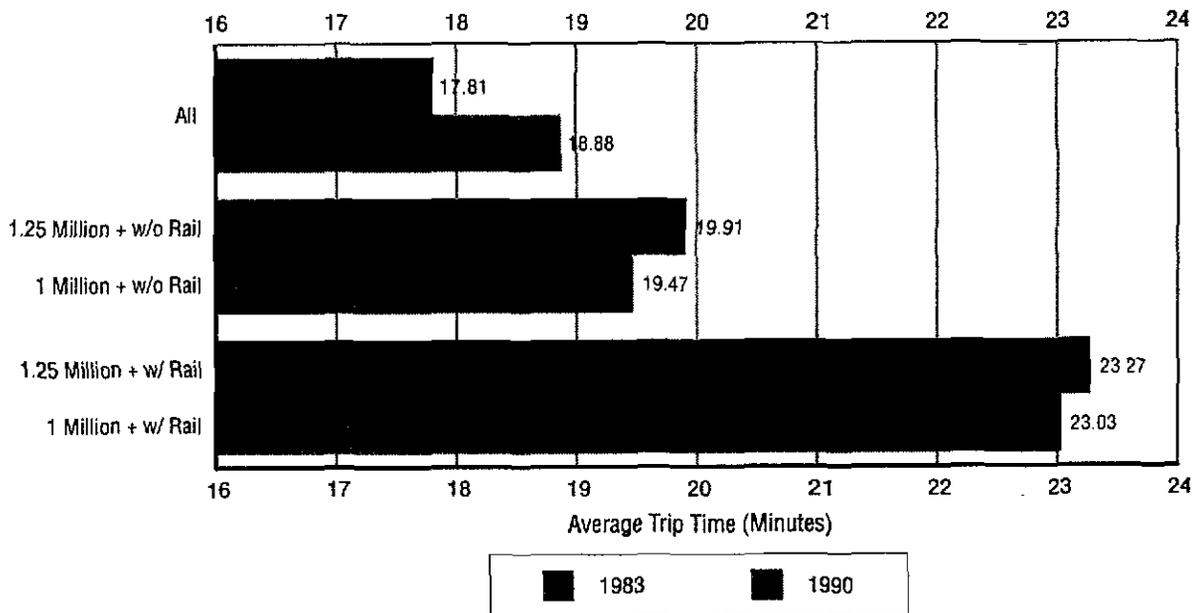
For the Nation as a whole, the average commute increased by 1.1 minutes, from 17.8 minutes in 1983 to 18.9 minutes in 1990 (Figure 3-4 and Table 3-13). This is an increase of 6.0 percent, less than the 22.4 percent average commuting trip length increase (Table 3-1). Therefore, the

**FIGURE 3-4**  
**Average Travel Time for Commute Trips**

**Privately Operated Vehicles**



**All Modes**



*Note: Excludes trips greater than 75 miles.*

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speed of commuting travel improved over the 1983 to 1990 period.

Although the average commuting time increased nationwide, the average commuting times in large urban areas stayed nearly the same. In large urban areas with rail service, there was only a 14-second decrease in commuting times between 1983 and 1990; in large urban areas without rail service, there was a 26-second decrease. These findings counter prevailing public opinion that commuting travel times are getting longer.

The longest commuting time in 1990 was by rail. At an average of 46.7 minutes, rail commuting was almost 1.5 times longer in duration than the 18.9 minute average commute time for all modes (Table 3-13). This is due to the longer average trip length (Table 3-7).

Bus commuting in 1990 took an average of 36.2 minutes. Walking to work took the least amount of time, 9.8 minutes.

### **Bus Commuting has a Time Handicap**

Tables 3-7 and 3-13 show that although commute trips by POV and buses are similar in distance (10.95 miles for auto drivers and 9.85 miles for bus riders in areas with rail service), the travel times differ widely (21 minutes for the auto driver and passenger and 39.3 minutes for the bus rider). This difference in travel time may be an important reason why bus commuting is less attractive than auto commuting.

Table 3-14 compares commuting time for driving alone and carpooling. In general, carpooling means a somewhat longer commute time.

Commuting in POVs takes less time than in transit vehicles, regardless of the length of trip and the size of urban area. For example, for commute trips of 8 to 10 miles in large metropolitan areas with rail service, the POV trip time averaged 19.8 minutes, compared with 46.7 minutes by transit. For commute trips of 4 to 5 miles in large metropolitan areas without rail service, the POV trip time was 12.4 minutes, compared with 29.1 minutes by transit.

### **Economy of Scale in Commuting Time**

As trip length increases, trip speed increases. Table 3-15, for example, indicates that commuting trips of between 8 and 10 miles take an average of 18.5 minutes, but that trips six to seven times longer (51 to 75 miles) are only about four times the duration of the 8 to 10 mile trip.

### **Income is Only a Minor Factor in Predicting Commuting Time**

Household income has little, if any, relationship to commuting time for urban areas under 1 million population. Even in the larger urban areas, commuting travel time increases only marginally with household income (Table 3-18).

Consistent with the finding that males make longer trips than females (Table 3-4) is the finding that males spend more time commuting than females (Table 3-19).

**TABLE 3-1**  
**Average Trip Length by Trip Purpose and Urban Size Group**  
**(All Modes)**

**1983**

Trip Purpose	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
<b>Earning a Living</b>					
To or From Work	6.57 Mi.	9.19 Mi.	8.95 Mi.	8.94 Mi.	8.28 Mi.
Work-Related Business	6.90	10.03	9.71	11.78	9.78
<b>Family and Personal Business</b>					
Shopping	4.40	4.36	4.04	6.26	5.00
Other Family/Personal Business	5.28	5.62	5.67	6.99	6.10
<b>Civic/Educational/Religious</b>	3.49	3.92	4.13	5.67	4.49
<b>Social and Recreational</b>					
Vacation/Pleasure Driving	18.82	15.03	26.30	19.36	18.54
Visit Friends/Relatives	7.07	7.74	6.91	9.34	8.03
Other Social/Recreational	6.26	6.12	7.35	8.09	7.07
<b>Other</b>	4.49	8.80	4.70	6.86	6.11
<b>All</b>	5.65 Mi.	6.47 Mi.	6.51 Mi.	7.71 Mi.	6.69 Mi.

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-1 (Continued)**  
**Average Trip Length by Trip Purpose and Urban Size Group**  
**(All Modes)**

**1990**

Trip Purpose	Urban Size Group				
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	All
<b>Earning a Living</b>					
To or From Work	7.95 Mi.	10.20 Mi.	10.54 Mi.	11.20 Mi.	10.14 Mi
Work-Related Business	8.59	8.13	8.47	10.44	9.25
<b>Family and Personal Business</b>					
Shopping	4.18	4.15	4.11	6.73	5.10
Other Family/Personal Business	5.46	6.38	5.71	7.49	6.50
<b>Civic/Educational/Religious</b>	4.46	4.70	3.93	5.85	4.95
<b>Social and Recreational</b>					
Vacation/Pleasure Driving	22.92	15.04	20.24	19.79	19.77
Visit Friends/Relatives	7.25	8.48	8.16	8.88	8.26
Other Social/Recreational	7.25	7.47	7.67	8.98	8.00
<b>Other</b>	5.32	7.93	5.68	7.24	6.70
<b>All</b>	<b>6.15 Mi.</b>	<b>6.98 Mi.</b>	<b>6.88 Mi.</b>	<b>8.31 Mi.</b>	<b>7.27 Mi.</b>

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-2**  
**Average Trip Length by Trip Purpose and Urban Size Group**  
**(Privately Operated Vehicles)**

**1983**

Trip Purpose	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
<b>Earning a Living</b>					
To or From Work	6.78 Mi.	9.36 Mi.	9.13 Mi.	8.99 Mi.	8.36 Mi.
Work-Related Business	7.86	9.75	10.99	10.48	9.63
<b>Family and Personal Business</b>					
Shopping	4.10	4.50	4.33	6.05	4.91
Other Family/Personal Business	5.53	5.92	5.61	6.71	6.13
<b>Civic/Educational/Religious</b>	4.32	5.21	5.85	6.08	5.35
<b>Social and Recreational</b>					
Vacation/Pleasure Driving	21.37	19.04	31.94	17.66	20.15
Visit Friends/Relatives	7.95	8.37	7.78	8.91	8.39
Other Social/Recreational	6.68	6.14	7.86	7.84	7.21
<b>Other</b>	3.74	10.26	4.40	6.25	5.76
<b>All</b>	6.05 Mi.	7.02 Mi.	7.10 Mi.	7.68 Mi.	6.98 Mi.

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-2 (Continued)**  
**Average Trip Length by Trip Purpose and Urban Size Group**  
**(Privately Operated Vehicles)**

**1990**

Trip Purpose	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
<b>Earning a Living</b>					
To or From Work	8.18 Mi.	10.54 Mi.	11.04 Mi.	11.62 Mi.	10.50 Mi.
Work-Related Business	8.71	8.59	8.70	9.82	9.16
<b>Family and Personal Business</b>					
Shopping	4.08	4.19	4.37	6.06	4.91
Other Family/Personal Business	5.27	6.30	5.94	7.25	6.38
<b>Civic/Educational/Religious</b>	5.79	6.72	6.56	7.57	6.79
<b>Social and Recreational</b>					
Vacation/Pleasure Driving	22.83	15.89	23.33	19.90	20.59
Visit Friends/Relatives	7.92	9.12	9.37	9.37	8.96
Other Social/Recreational	7.17	8.28	8.59	9.10	8.37
<b>Other</b>	5.94	9.18	8.38	7.17	7.44
<b>All</b>	6.40 Mi.	7.58 Mi.	7.76 Mi.	8.63 Mi.	7.74 Mi.

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-3**  
**Average Trip Length by Mode and Urban Size Group**  
**(All Purposes)**

**1990**

Travel Mode	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
Privately Operated Vehicle	6.60 Mi.	7.54 Mi.	7.83 Mi.	8.87 Mi.	7.89 Mi.
Bus <sup>1</sup>	5.57	7.52	6.86	9.00	7.00
Rail/Subway <sup>1</sup>	*	*	14.91	*	14.68
Taxi	2.23	*	4.75	5.44	4.62
Bicycle	1.81	1.65	1.85	2.45	1.99
Walk	0.67	0.67	0.66	0.58	0.64
Other	4.88	4.64	3.95	6.83	5.68
All	6.15 Mi.	6.98 Mi.	6.88 Mi.	8.31 Mi.	7.27 Mi.

<sup>1</sup>See "Limitations of Data on Transit," page 5.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-4**  
**Average Trip Length and Occupancy by Trip Purpose and Gender**  
 (Urbanized Area Households)

1983

Trip Purpose	Average Trip Length (All Modes)			Average Trip Length (POV)			Average Number of Occupants (POV)		
	Male	Female	All	Male	Female	All	Male <sup>1</sup>	Female <sup>1</sup>	All <sup>1</sup>
<b>Earning a Living</b>									
To or From Work	8.71 Mi.	6.80 Mi.	7.91 Mi.	8.78 Mi.	6.83 Mi.	8.00 Mi.	1.16	1.20	1.18
Work-Related Business	10.10	6.01	8.47	11.03	5.75	9.05	1.27	1.37	1.31
<b>Family and Personal Business</b>									
Shopping	4.32	4.28	4.30	4.11	4.34	4.24	1.47	1.59	1.54
Other Family/Personal Business	6.05	5.10	5.52	6.41	5.21	5.75	1.48	1.69	1.60
<b>Civic/Educational/Religious</b>	4.09	3.53	3.78	5.58	4.39	4.93	1.62	1.81	1.72
<b>Social and Recreational</b>									
Vacation/Pleasure Driving	19.76	16.55	18.09	21.95	19.64	21.25	2.31	3.01	2.52
Visit Friends/Relatives	7.18	7.22	7.20	8.20	7.88	8.03	1.67	1.81	1.74
Other Social/Recreational	6.44	6.50	6.47	6.99	6.67	6.84	1.87	2.07	1.96
<b>Other</b>	5.12	5.99	5.58	3.95	6.75	5.45	1.55	1.77	1.67
<b>All</b>	6.60 Mi.	5.59 Mi.	6.08 Mi.	7.25 Mi.	5.84 Mi.	6.55 Mi.	1.44	1.62	1.53

<sup>1</sup>Gender of driver only considered.

Note: Excludes trips greater than 75 miles.

(Continued)

**TABLE 3-4 (Continued)**  
**Average Trip Length and Occupancy by Trip Purpose and Gender**  
 (Urbanized Area Households)

1990

Trip Purpose	Average Trip Length (All Modes)			Average Trip Length (POV)			Average Number of Occupants (POV)		
	Male	Female	All	Male	Female	All	Male <sup>1</sup>	Female <sup>1</sup>	All <sup>1</sup>
Earning a Living									
To or From Work	10.57 Mi.	8.10 Mi.	9.55 Mi.	11.02 Mi.	8.32 Mi.	9.83 Mi.	1.10	1.12	1.11
Work-Related Business	9.58	6.48	8.40	9.82	6.50	8.67	1.28	1.23	1.26
Family and Personal Business									
Shopping	4.17	4.13	4.15	4.40	4.04	4.20	1.49	1.49	1.49
Other Family/Personal Business	6.34	5.47	5.84	6.51	5.24	5.81	1.58	1.70	1.65
Civic/Educational/Religious	4.39	4.34	4.37	6.71	5.91	6.29	1.77	1.64	1.70
Social and Recreational									
Vacation/Pleasure Driving	20.22	19.12	19.75	22.55	18.09	21.30	1.81	2.34	1.95
Visit Friends/Relatives	7.97	7.84	7.90	9.00	8.39	8.71	1.59	1.47	1.53
Other Social/Recreational	7.79	7.10	7.46	8.52	7.09	7.97	1.92	1.85	1.90
Other	6.72	5.85	6.32	8.25	6.77	7.62	1.52	1.43	1.48
All	7.32 Mi.	6.04 Mi.	6.65 Mi.	8.10 Mi.	6.24 Mi.	7.19 Mi.	1.48	1.49	1.49

<sup>1</sup>Gender of driver only considered.

Note: Excludes trips greater than 75 miles.

**TABLE 3-5**  
**Commute Vehicle Trips by Trip Length and Urban Size Group**  
**(Privately Operated Vehicles)**

**1983**

Trip Length	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
< .5 Mile	4.34 %	4.93 %	5.00 %	10.91 %	6.94 %
1 Mile	9.81	7.54	8.85	11.24	9.85
2 Miles	13.59	10.22	11.01	11.11	11.89
3 Miles	12.37	6.34	6.66	8.05	8.95
4 Miles	7.90	4.85	6.14	5.85	6.45
5 Miles	10.76	8.91	8.03	6.85	8.59
6 Miles	4.62	4.68	4.82	4.37	4.59
7 Miles	5.80	4.79	5.40	3.35	4.65
8 to 10 Miles	11.84	16.59	15.11	9.97	12.26
11 to 15 Miles	11.06	12.63	11.66	10.52	11.13
16 to 20 Miles	3.64	9.57	8.45	6.85	6.50
21 to 30 Miles	3.05	6.12	6.28	5.74	5.02
31 to 40 Miles	0.93	2.12	1.59	2.95	1.96
41 to 50 Miles	0.20	0.53	0.55	1.11	0.65
51 to 75 Miles	0.09	0.17	0.43	1.12	0.57
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Average Trip Length	6.78 Mi.	9.36 Mi.	9.13 Mi.	8.99 Mi.	8.36 Mi.
Commute Vehicle Trips (in Millions)	11,504	5,513	5,077	12,722	35,307

*Note: Excludes trips greater than 75 miles.*

*(Continued)*

**TABLE 3-5 (Continued)**  
**Commute Vehicle Trips by Trip Length and Urban Size Group**  
**(Privately Operated Vehicles)**

**1990**

Trip Length	Urban Size Group				
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	All
< .5 Mile	4.44%	3.70%	4.41%	5.03%	4.50%
1 Mile	8.06	6.57	7.07	8.96	7.90
2 Miles	10.27	7.77	8.38	8.70	8.80
3 Miles	10.98	8.57	7.55	7.84	8.65
4 Miles	6.40	4.37	5.18	4.30	4.95
5 Miles	10.97	8.69	8.41	7.75	8.80
6 Miles	5.02	4.07	3.65	3.31	3.92
7 Miles	5.05	4.60	4.69	4.52	4.69
8 to 10 Miles	16.18	15.66	15.14	12.13	14.36
11 to 15 Miles	11.90	15.00	13.69	12.94	13.28
16 to 20 Miles	4.54	9.45	7.66	8.37	7.60
21 to 30 Miles	3.37	7.93	7.96	8.45	7.10
31 to 40 Miles	1.55	2.15	3.59	4.02	2.98
41 to 50 Miles	0.81	0.99	1.68	2.06	1.48
51 to 75 Miles	0.48	0.47	0.94	1.61	0.99
Total	100.00%	100.00%	100.00%	100.00%	100.00%
Average Trip Length	7.74 Mi.	9.76 Mi.	10.52 Mi.	10.87 Mi.	9.86 Mi.
Commute Vehicle Trips (in Millions)	9,344	8,704	7,626	15,457	41,132

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-6**  
**Commute Vehicle Miles of Travel by Trip Length and Urban Size Group**

**1990**

Trip Length	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
< .5 Mile	0.14%	0.09%	0.10%	0.11%	0.11%
1 Mile	0.99	0.62	0.64	0.77	0.75
2 Miles	2.51	1.48	1.52	1.50	1.68
3 Miles	4.03	2.44	2.05	2.02	2.47
4 Miles	3.13	1.66	1.88	1.48	1.89
5 Miles	6.70	4.12	3.81	3.34	4.19
6 Miles	3.68	2.32	1.98	1.71	2.24
7 Miles	4.32	3.06	2.97	2.73	3.13
8 to 10 Miles	18.23	13.86	12.66	9.68	12.66
11 to 15 Miles	19.67	19.27	16.82	14.91	17.05
16 to 20 Miles	10.47	16.84	13.10	13.38	13.54
21 to 30 Miles	10.75	19.78	18.70	18.99	17.64
31 to 40 Miles	6.86	7.30	11.65	12.64	10.29
41 to 50 Miles	4.70	4.46	6.95	8.31	6.59
51 to 75 Miles	3.82	2.70	5.16	8.45	5.77
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Total VMT (in Millions)</b>	<b>76,421</b>	<b>91,714</b>	<b>84,186</b>	<b>179,533</b>	<b>431,853</b>

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-7**  
**Average Trip Length of Commute Trips by Mode and Urban Size Group**

**1990**

Travel Mode	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
Auto Driver	7.89 Mi.	10.03 Mi.	10.95 Mi.	11.35 Mi.	10.18 Mi.
Auto Passenger	8.29	10.12	9.17	8.94	9.12
Passenger Van	9.20	10.31	13.59	11.51	11.03
Pickup/Other Truck Driver	9.27	13.07	11.09	12.38	11.78
Pickup/Other Truck Passenger	7.77	15.01	16.20	16.45	14.22
Other POV	8.62	8.06	24.91	15.75	15.03
Bus <sup>1</sup>	8.22	9.25	9.85	14.28	9.67
Rail/Subway <sup>1</sup>	*	*	17.12	*	16.90
Taxi	*	*	4.28	*	3.48
Bicycle	2.56	1.91	1.52	2.27	2.11
Walk	0.74	0.93	1.08	0.45	0.83
Other	8.05	*	7.20	16.06	11.82
<b>All</b>	<b>7.95 Mi.</b>	<b>10.20 Mi.</b>	<b>10.54 Mi.</b>	<b>11.21 Mi.</b>	<b>10.14 Mi.</b>

<sup>1</sup>See "Limitations of Data on Transit," page 5.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-8**  
**Average Commute Trip Length by Mode, Number of Occupants, and Urban Size Group**

**1990**

Travel Mode	Occupants	Urban Size Group				All
		Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
<b>Auto</b>						
	One	7.93 Mi.	10.08 Mi.	11.10 Mi.	11.44 Mi.	10.25 Mi.
	Two	7.74	10.01	8.78	9.64	9.11
	Three	7.90	8.13	8.71	8.81	8.51
	Four	11.27	9.99	15.96	3.85	12.48
	Five +	9.28	10.03	11.15	11.58	10.56
	All	7.92 Mi.	10.03 Mi.	10.77 Mi.	11.14 Mi.	10.08 Mi.
<b>Passenger Van</b>						
	One	8.98 Mi.	10.92 Mi.	10.57Mi.	10.25 Mi.	10.11 Mi.
	Two	10.68	5.65	26.42	11.11	12.85
	Three	*	*	*	6.94	6.07
	Four	*	*	*	14.36	9.42
	Five +	11.66	*	17.11	30.87	21.84
	All	9.20 Mi.	10.31 Mi.	13.59 Mi.	11.53 Mi.	11.04 Mi.
<b>Other</b>						
	One	7.68 Mi.	10.33 Mi.	9.06 Mi.	10.52 Mi.	9.61 Mi.
	Two	8.61	16.41	16.82	15.60	14.71
	Three	7.27	10.64	8.60	14.38	11.87
	Four	*	*	*	*	2.62
	Five +	11.74	5.41	9.93	32.04	15.67
	All	7.79 Mi.	10.79 Mi.	9.66 Mi.	11.31 Mi.	10.18 Mi.
<b>All Modes</b>						
	One	7.91 Mi.	10.17 Mi.	10.49 Mi.	11.12 Mi.	10.08 Mi.
	Two	7.97	10.80	11.00	11.21	10.39
	Three	7.73	8.54	8.66	10.03	9.14
	Four	8.75	9.19	12.51	13.22	11.17
	Five +	10.91	10.56	12.09	24.58	15.42
	All	7.95 Mi.	10.20 Mi.	10.54 Mi.	11.21 Mi.	10.14 Mi.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-9**  
**Average Commute Trip Length by Residence Location and**  
**Urban Size Group**

**1983**

Urbanized Area Status	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
In Urbanized Area, Central City	6.20 Mi.	8.82 Mi.	8.57 Mi.	N/A	7.13 Mi.
In Urbanized Area, Not Central City	7.08	9.40	9.10	N/A	8.53
Not in Urbanized Area	N/A	N/A	N/A	8.94	8.94
All	6.57 Mi.	9.19 Mi.	8.95 Mi.	8.94 Mi.	8.28 Mi.

*N/A = not applicable.*

*Note: Excludes trips greater than 75 miles.*

**1990**

Urbanized Area Status	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
In Urbanized Area, Central City	7.35 Mi.	9.55 Mi.	9.50 Mi.	N/A	8.59 Mi.
In Urbanized Area, Not Central City	9.39	11.03	11.25	N/A	10.76
Not in Urbanized Area	N/A	N/A	N/A	11.20	10.22
All	7.95 Mi.	10.20 Mi.	10.54 Mi.	11.20 Mi.	10.14 Mi.

*N/A = not applicable.*

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-10**  
**Commute Person Trips by Trip Length and Gender**  
**(Urbanized Area Households)**

**1990**

Trip Length	All Modes			Private Vehicles Only		
	Male	Female	All	Male	Female	All
< .5 Mile	6.31%	8.76%	7.42%	3.38%	5.19%	4.18%
1 Mile	7.02	9.15	7.98	6.20	8.61	7.26
2 Miles	7.75	10.02	8.78	7.77	10.24	8.86
3 Miles	8.59	9.48	9.00	8.66	9.76	9.14
4 Miles	4.88	5.73	5.27	5.06	5.72	5.35
5 Miles	8.51	9.37	8.90	8.76	10.29	9.44
6 Miles	3.93	4.28	4.09	4.06	4.59	4.29
7 Miles	4.11	4.95	4.49	4.32	5.39	4.79
8 to 10 Miles	14.48	14.45	14.47	15.67	15.70	15.68
10 to 15 Miles	13.40	11.36	12.47	14.38	12.35	13.49
16 to 20 Miles	7.88	5.30	6.71	8.61	5.25	7.13
21 to 30 Miles	7.66	4.21	6.10	8.02	4.08	6.28
31 to 40 Miles	2.77	1.87	2.36	2.79	1.81	2.36
41 to 50 Miles	1.54	0.77	1.19	1.43	0.75	1.13
51 to 75 Miles	1.17	0.30	0.78	0.90	0.26	0.61
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average Trip Length	10.75 Mi.	8.10 Mi.	9.55 Mi.	11.13 Mi.	8.32 Mi.	9.86 Mi.
Commute Person Trips (in Millions)	17,262	14,318	31,580	14,338	11,332	25,671

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-11**  
**Average Person Trip Length by Mode and Gender**  
 (Urbanized Area Households)

**1983**

Gender

Travel Mode	Male	Female	All
Auto	8.86 Mi.	6.93 Mi.	7.99 Mi.
Pickup/Other Truck	10.02	6.44	9.55
Other POV	8.54	8.31	8.53
Bus <sup>1</sup>	7.92	7.14	7.44
Rail/Subway <sup>1</sup>	19.01	18.15	18.63
Taxi	6.66	3.00	5.58
Bicycle	1.87	1.45	1.72
Walk	0.72	0.38	0.57
Other	3.21	4.45	3.60
All	8.71 Mi.	6.80 Mi.	7.91 Mi.

<sup>1</sup>See "Limitations of Data on Transit," page 5.

Note: Excludes trips greater than 75 miles.

**1990**

Gender

Travel Mode	Male	Female	All
Auto	10.79 Mi.	8.35 Mi.	9.54 Mi.
Pickup/Other Truck	11.53	8.60	11.15
Passenger Van	13.11	7.38	10.75
Other POV	14.90	*	14.66
Bus <sup>1</sup>	9.75	9.04	9.40
Rail/Subway <sup>1</sup>	18.25	15.16	17.01
Taxi	5.60	2.30	3.90
Bicycle	2.08	*	2.06
Walk	0.77	1.20	0.98
Other	8.59	7.09	8.20
All	10.75 Mi.	8.10 Mi.	9.55 Mi.

<sup>1</sup>See "Limitations of Data on Transit," page 5.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-12**  
**Commute Person Trips by Gender, Driver/Passenger Status, and Trip Length**  
**(Urbanized Area Households)**

**1990**

Trip Length	Male		Female		All
	Driver	Passenger	Driver	Passenger	
< .5 Mile	3.38%	4.64%	5.19%	6.64%	4.32%
1 Mile	6.20	6.83	8.61	13.08	7.55
2 Miles	7.77	7.51	10.24	10.24	8.88
3 Miles	8.66	12.43	9.76	10.16	9.32
4 Miles	5.06	4.53	5.72	6.76	5.39
5 Miles	8.76	11.21	10.29	7.74	9.42
6 Miles	4.06	5.47	4.59	2.54	4.25
7 Miles	4.32	1.76	5.39	4.12	4.64
8 to 10 Miles	15.67	11.17	15.70	12.00	15.32
11 to 15 Miles	14.38	11.35	12.35	11.10	13.28
16 to 20 Miles	8.61	4.83	5.25	6.66	7.02
21 to 30 Miles	8.02	7.78	4.08	6.55	6.35
31 to 40 Miles	2.79	3.67	1.81	1.75	2.38
41 to 50 Miles	1.43	2.03	0.75	0.40	1.13
51 to 75 Miles	0.90	4.79	0.26	0.26	0.76
Total	100.00%	100.00%	100.00%	100.00%	100.00%
Average Trip Length	11.02 Mi.	12.63 Mi.	8.32 Mi.	8.35 Mi.	9.86 Mi.
All	50.83%	3.84%	40.17%	5.16%	100.00%
Commute Person Trips (in Millions)	14,338	1,084	11,332	1,455	28,210

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-13**  
**Average Commute Travel Time by Mode and Urban Size Group**

**1983**

Travel Mode	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
Auto	14.73 Min.	19.12 Min.	19.98 Min.	16.60 Min.	16.96 Min.
Passenger Van	16.41	21.68	23.07	22.59	20.30
Pickup/Other Truck	17.01	18.75	26.83	17.87	18.35
Other POV	14.73	22.15	28.14	16.01	18.45
Bus <sup>1</sup>	28.67	40.04	34.30	27.88	34.43
Rail/Subway <sup>1</sup>	*	*	48.51	*	48.72
Taxi	*	*	18.10	6.56	14.59
Bicycle	13.22	20.49	7.46	12.81	14.42
Walk	8.08	9.41	11.44	6.74	8.58
Other	29.15	9.00	16.62	33.42	27.42
<b>All</b>	<b>15.03 Min.</b>	<b>19.91 Min.</b>	<b>23.27 Min.</b>	<b>16.61 Min.</b>	<b>17.81 Min.</b>

<sup>1</sup>See "Limitations of Data on Transit," page 5.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-13 (Continued)**  
**Average Commute Travel Time by Mode and Urban Size Group**

**1990**

Travel Mode	Urban Size Group				
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	All
Auto	15.19 Min.	19.03 Min.	20.95 Min.	17.52 Min.	18.05 Min.
Van	15.95	18.31	22.62	17.91	18.32
Pickup/Other Truck	16.61	21.44	22.25	19.77	19.65
Other POV	18.24	12.30	41.57	25.22	25.47
Bus <sup>1</sup>	30.52	33.68	39.26	38.76	36.20
Rail/Subway <sup>1</sup>	*	*	47.19	*	46.68
Taxi	*	*	12.86	*	11.72
Bicycle	15.23	18.53	14.76	13.18	15.60
Walk	10.87	10.17	10.43	8.05	9.77
Other	20.55	*	34.07	47.26	35.50
<b>All</b>	<b>15.63 Min.</b>	<b>19.47 Min.</b>	<b>23.03 Min.</b>	<b>18.01 Min.</b>	<b>18.88 Min.</b>

<sup>1</sup>See "Limitations of Data on Transit," page 5.

\* Insufficient data

Note: Excludes trips greater than 75 miles.

**TABLE 3-14**  
**Average Commute Travel Time by Number of Occupants and Urban Size Group**  
**(Privately Operated Vehicles)**

**1990**

Number of Occupants	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
One	15.31 Min.	19.11 Min.	21.22 Min.	17.99 Min.	18.22 Min.
Two	15.82	20.96	22.25	20.18	19.81
Three	19.69	18.24	17.79	15.89	17.26
Four	16.71	18.34	23.98	19.19	19.02
Five +	16.35	34.58	14.75	31.89	28.25
All	15.41 Min.	19.26 Min.	21.25 Min.	18.15 Min.	18.34 Min.

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-15**  
**Average Commute Travel Time by Trip Length and Urban Size Group**

**1983**

Trip Length	Urban Size Group				All
	Under 1.25 Million	1.25 Million + w/o Rail	1.25 Million + w/ Rail	Not Urban Area	
< .5 Mile	4.34 Min.	4.93 Min.	6.56 Min.	4.22 Min.	4.67 Min.
1 Mile	6.91	6.59	8.82	6.04	6.81
2 Miles	8.01	7.63	10.17	7.50	8.09
3 Miles	10.73	12.56	13.69	9.30	10.89
4 Miles	12.61	13.46	14.90	11.05	12.53
5 Miles	14.41	16.74	19.28	12.16	14.98
6 Miles	15.29	16.80	20.25	13.05	15.65
7 Miles	17.07	19.87	20.82	13.39	17.36
8 to 10 Miles	19.46	20.88	26.49	17.58	20.75
11 to 15 Miles	24.04	26.77	35.63	22.89	26.26
16 to 20 Miles	28.93	34.39	38.50	28.54	31.92
21 to 30 Miles	39.33	39.89	48.73	38.24	40.94
31 to 40 Miles	48.60	50.52	51.71	51.06	50.80
41 to 50 Miles	65.81	58.72	67.28	66.70	65.84
51 to 75 Miles	88.59	86.11	94.39	85.98	86.83
All	15.03 Min.	19.91 Min.	23.27 Min.	16.61 Min.	17.81 Min.

*Note: Excludes trips greater than 75 miles.*

*(Continued)*

**TABLE 3-15 (Continued)**  
**Average Commute Travel Time by Trip Length and Urban Size Group**

**1990**

Trip Length	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
< .5 Mile	4.83 Min.	5.69 Min.	9.09 Min.	4.54 Min	6.12 Min.
1 Mile	6.40	6.71	8.70	5.14	6.44
2 Miles	8.72	8.47	10.74	6.77	8.41
3 Miles	9.89	10.98	13.52	8.53	10.39
4 Miles	11.64	11.49	14.46	10.13	11.74
5 Miles	13.27	13.75	16.93	10.30	13.08
6 Miles	14.79	15.49	20.09	12.64	15.34
7 Miles	16.87	16.76	20.30	13.45	16.31
8 to 10 Miles	17.77	18.96	22.67	15.83	18.49
11 to 15 Miles	22.37	24.95	28.73	21.44	23.98
16 to 20 Miles	27.86	30.34	35.17	27.36	29.87
21 to 30 Miles	34.92	37.93	43.61	36.11	38.21
31 to 40 Miles	45.75	49.66	51.82	47.52	48.72
41 to 50 Miles	56.63	65.83	62.87	59.52	60.80
51 to 75 Miles	74.15	71.91	80.88	74.30	75.92
All	15.63 Min.	19.47 Min.	23.03 Min.	18.01 Min.	18.88 Min.

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-16**  
**Average Commute Travel Time by Residence Location and**  
**Urban Size Group**

**1990**

Urbanized Area Status	Urban Size Group				All
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	
In Urbanized Area, Central City	14.96 Min.	18.56 Min.	23.50 Min.	N/A	18.22 Min.
In Urbanized Area, Not Central City	17.23	20.62	22.71	N/A	20.80
Not in Urbanized Area	N/A	N/A	N/A	18.01	18.01
All	15.63 Min.	19.47 Min.	23.03 Min.	18.01 Min.	18.88 Min.

*N/A = not applicable.*

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-17**  
**Average Commute Travel Time by Trip Length, Mode, and Urban Size Group**

**1990**

Travel Distance	Under 1 Million				1 Million + w/o Rail				1 Million + w/ Rail			
	POV	Transit	Walk	Bike	POV	Transit	Walk	Bike	POV	Transit	Walk	Bike
< .5 Miles	4.16	*	5.78	*	4.59	*	6.90	*	5.36	*	7.66	*
1 Miles	5.81	*	16.36	*	5.62	*	15.82	*	6.32	18.48	14.65	*
2 to 3 Miles	8.68	24.42	37.67	16.24	8.90	30.50	*	*	9.20	27.43	25.14	*
4 to 5 Miles	12.06	33.97	*	*	12.40	29.06	*	*	13.64	31.97	*	*
6 to 7 Miles	15.47	26.48	*	*	15.38	29.31	*	*	17.07	41.76	*	*
8 to 10 Miles	17.48	28.25	*	*	18.53	36.42	*	*	19.77	46.69	*	*
11 to 15 Miles	22.17	33.30	*	*	24.57	42.09	*	*	26.87	45.19	*	*
16 to 20 Miles	27.71	*	*	*	29.89	46.34	*	*	32.93	50.39	*	*
21 to 30 Miles	34.17	*	*	*	37.91	*	*	*	41.50	56.53	*	*
31 to 50 Miles	49.88	*	*	*	54.26	*	*	*	51.51	71.87	*	*
51 to 75 Miles	74.15	*	*	*	71.91	*	*	*	79.46	86.01	*	*
All	15.48	30.51	10.87	15.23	19.33	33.23	10.17	18.53	21.39	43.56	10.43	14.76

\* Insufficient data  
Time is in minutes.

Note: Excludes trips greater than 75 miles.

**TABLE 3-17 (Continued)**  
**Average Commute Travel Time by Trip Length, Mode, and Urban Size Group**

**1990**

Travel Distance	Not Urban Area				All			
	POV	Transit	Walk	Bike	POV	Transit	Walk	Bike
< .5 Miles	3.49	*	6.04	*	4.19	*	6.78	10.27
1 Miles	4.73	*	13.76	*	5.41	17.00	14.93	11.80
2 to 3 Miles	7.26	34.21	*	*	8.31	27.91	28.82	19.16
4 to 5 Miles	10.06	*	*	*	11.75	31.73	*	16.64
6 to 7 Miles	13.07	*	*	*	14.92	34.83	*	20.00
8 to 10 Miles	15.76	*	*	*	17.63	42.41	*	43.00
11 to 15 Miles	21.02	*	*	*	23.24	42.49	*	*
16 to 20 Miles	27.16	*	*	*	29.07	49.76	*	*
21 to 30 Miles	35.99	*	*	*	37.44	55.48	*	*
31 to 50 Miles	51.51	*	*	*	51.74	71.55	*	*
51 to 75 Miles	73.67	*	*	*	74.92	86.21	*	*
<b>All</b>	<b>18.17</b>	<b>39.84</b>	<b>8.05</b>	<b>13.18</b>	<b>18.42</b>	<b>40.47</b>	<b>9.77</b>	<b>15.60</b>

\* Insufficient data  
Time is in minutes.

Note: Excludes trips greater than 75 miles.

**TABLE 3-18**  
**Average Commute Travel Time by Household Income and Urban Size Group**

**1990**

Household Income	Urban Size Group				
	Under 1 Million	1 Million + w/o Rail	1 Million + w/ Rail	Not Urban Area	All
< \$5,000	16.03 Min.	17.94 Min.	17.21 Min.	19.07 Min.	17.88 Min.
\$5,000 to 9,999	16.15	17.78	26.34	13.14	16.98
\$10,000 to 14,999	13.40	16.15	19.76	18.17	16.84
\$15,000 to 19,999	14.58	16.85	20.81	17.44	16.95
\$20,000 to 24,999	14.90	16.93	21.74	14.91	16.43
\$25,000 to 29,999	15.51	19.57	22.02	16.87	18.12
\$30,000 to 34,999	15.72	16.48	18.06	18.10	17.35
\$35,000 to 39,999	16.54	18.46	21.59	18.29	18.47
\$40,000 to 44,000	16.49	19.86	21.23	18.04	18.70
\$45,000 to 49,999	14.08	18.55	21.97	17.64	18.06
\$50,000 to 54,999	15.75	21.28	26.09	19.14	20.36
\$55,000 to 59,999	15.24	25.01	25.52	18.90	20.99
\$60,000 to 64,999	18.06	22.27	22.26	18.89	20.42
\$65,000 to 69,999	15.82	20.77	25.23	22.94	21.78
\$70,000 to 74,999	12.27	20.78	25.20	26.15	21.49
\$75,000 to 79,999	12.68	26.54	30.87	23.01	24.75
\$80,000 +	15.59	22.86	25.35	21.42	22.23
<b>All</b>	<b>15.63 Min.</b>	<b>19.47 Min.</b>	<b>23.03 Min.</b>	<b>18.01 Min.</b>	<b>18.88 Min.</b>

*Note: Excludes trips greater than 75 miles.*

**TABLE 3-19**  
**Average Commute Travel Time by Mode and Gender**  
**(Urbanized Area Households)**

**1990**

Travel Mode	Gender		
	Male	Female	All
Auto	19.85 Min.	16.47 Min.	18.50 Min.
Van	21.42	14.65	18.32
Pickup/Other Truck	20.13	16.39	19.65
Other PDV	25.84	15.82	25.47
Bus <sup>1</sup>	37.12	35.58	36.35
Rail/Subway <sup>1</sup>	45.72	48.15	46.68
Taxi	11.84	11.59	11.72
Bicycle	16.46	10.26	15.60
Walk	9.61	9.95	9.77
Other	28.87	47.73	35.50
All	20.43 Min.	17.02 Min.	18.88 Min.

<sup>1</sup>See "Limitations of Data on Transit," page 5.

Note: Excludes trips greater than 75 miles.

**TABLE 3-20**  
**Average Commute Travel Time by Residence Location**  
**and Peak<sup>1</sup> or Off-Peak Travel**  
**(Urbanized Area Households)**

**1990**

Urbanized Area Status	Travel Period		
	Peak <sup>1</sup>	Off-Peak	All
In Urbanized Area, Central City	18.95 Min.	17.24 Min.	18.22 Min.
In Urbanized Area, Not Central City	21.55	19.72	20.80
Not in Urbanized Area	17.57	18.60	18.01
All	19.23 Min.	18.42 Min.	18.88 Min.

<sup>1</sup>Peak = 6:30am to 9:00am and 3:30pm to 6:00pm

Note: Excludes trips greater than 75 miles.