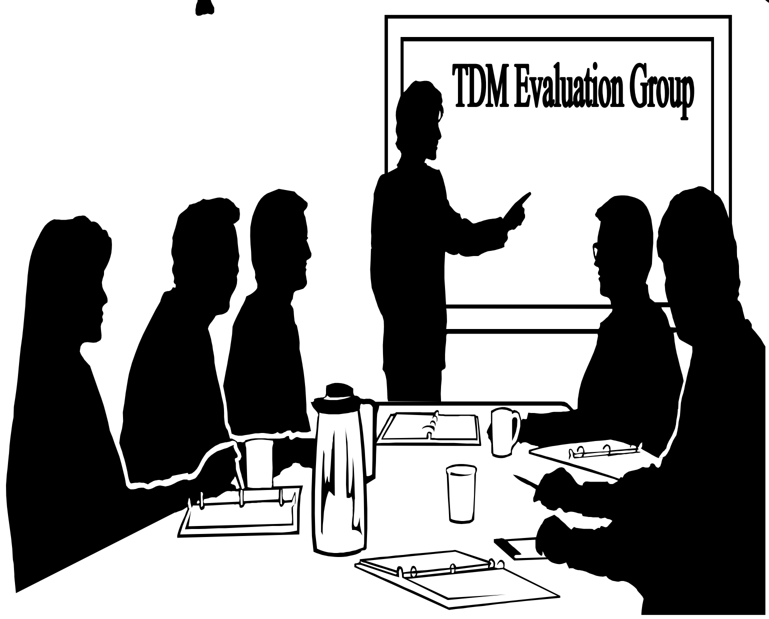
HANDOUTS

from previous meeting



April 15, 2008

Initial Results from 2008 Carshare Survey
April 15, 2008

ITEM # 3

Overview

The Carshare Survey was designed to:

- Examine characteristics of carshare trips
- Examine travel changes made in response to carshare availability
- Examine auto ownership / use changes in response to carshare availability

The survey was administered via the internet to all registered carshare users

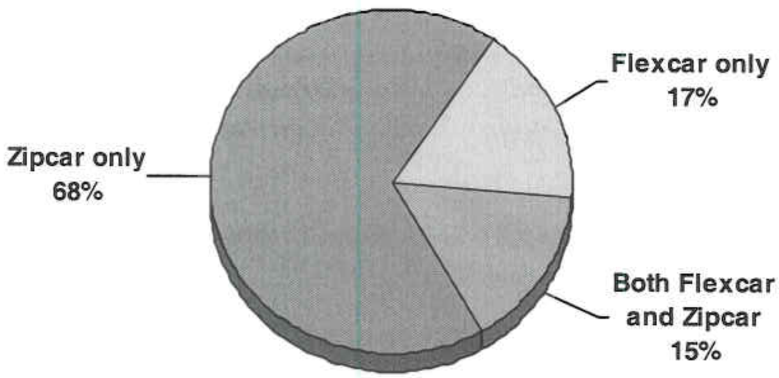
- Method originally was to survey members of both Flexcar and Zipcar, but the two companies merged in November 2007 and only Zipcar members could be contacted. Flexcar members who converted their membership to Zipcar following the merger were included, but Flexcar members who did not join Zipcar were not included.
- Zipcar sent survey email request with internet survey link on March 6 to about 28,000 Zipcar members.
- Zipcar sent an email reminder 3 weeks later (March 26).
- About 6,060 respondents accessed the survey weblink (21.6%):
  - **4,379 members completed the survey – 15.6% completed response rate**
  - 1,195 members (4.3%) completed part of the survey. Some of these responses also may be usable.
  - 492 members (1.7%) stopped on page 1 of the survey.

HIGHLIGHTS OF ANALYSIS RESULTS

Program Membership

- **Registration by Program** (Figure 1)
  - Two-thirds of respondents said they had registered only in Zipcar, 17% said they registered only in Flexcar, and 15% said they registered in both programs.
  - Since Zipcar sent the email only to members who had registered with Zipcar at some time, respondents who said they had registered only in Flexcar likely did not consider their conversion to Zipcar as a "registration."

Figure 1 – Carshare Program Registration (n=4,368)



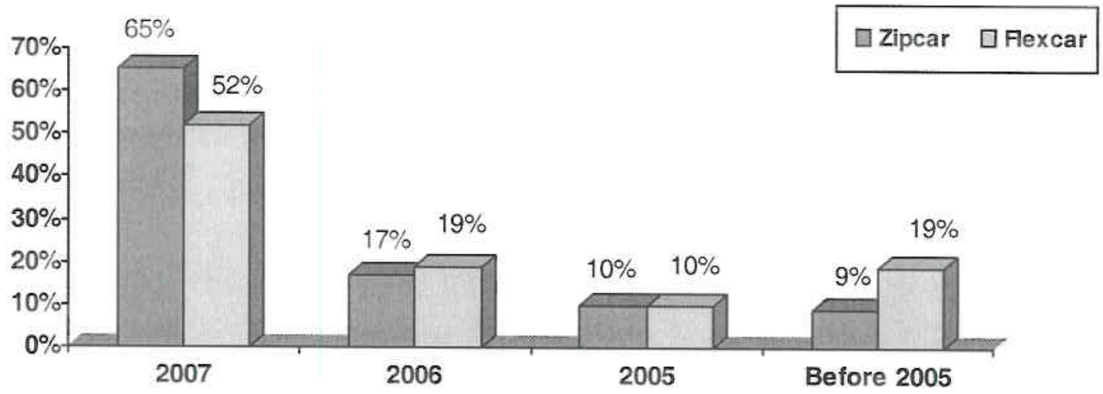
Overall Participation

- Zipcar – 83%
- Flexcar – 32%

- **Current Participation**
  - 99% of respondents said they were current Zipcar members.
  - 18% said they were "currently participating" in Flexcar. Again, this was likely confusion related to conversion from Flexcar to Zipcar after the merger.
  - Two-thirds of respondents who participated in both programs said they did so because the companies merged. Other reasons for dual registration included (multiple responses permitted):
    - 30% To have access to carshare in multiple locations or neighborhoods
    - 30% Gives me more options / opportunities / flexibility for reserving cars
    - 26% Have access to all carshare vehicles at home, work, school
    - 10% Programs offer different types of vehicles
    - 5% Programs have different rates and/or membership policies
    - 4% One account is personal and the other through employer or school

- **Year Joining Carshare** (Figure 2)
  - Half of the respondents who participated in Flexcar joined that program in 2007 and 65% of Zipcar members joined Zipcar in 2007 (or 2008).

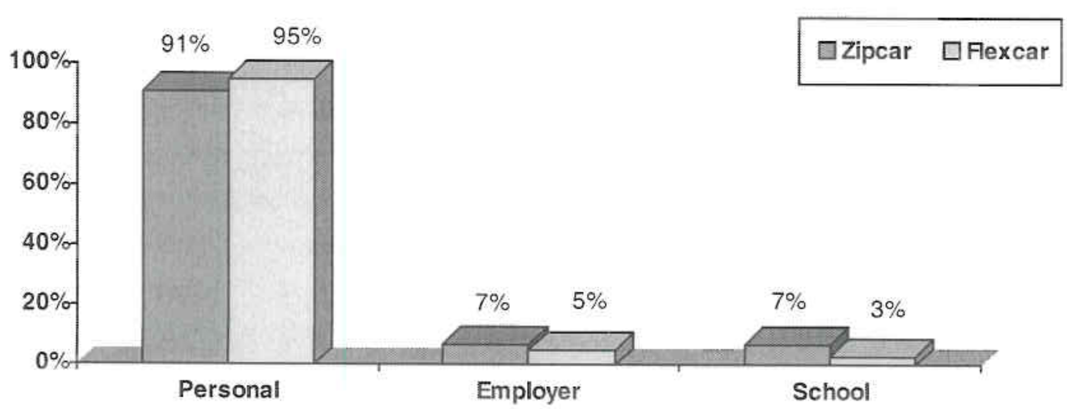
Figure 2 – Year Joining Carshare (Flexcar n = 1,396, Zipcar n = 4,079)



  - The higher share of recent membership for Zipcar is certainly related to the merger of the two companies, when former Flexcar members converted their memberships to Zipcar.

- **Personal Vs Organizational Account** (Figure 3)
  - Both Zipcar and Flexcar accounts were overwhelmingly personal. 95% of Flexcar members and 91% of Zipcar members said they had personal carshare accounts. About 5% of Flexcar members and 7% of Zipcar members said they had accounts through their employers and similar percentages said they had a school-based account. These percentages add to more than 100% because some respondents have multiple accounts.

Figure 3 – Carshare Account Holder (Flexcar n = 1,506, Zipcar n = 4,325)



- <u>**How Heard About Carshare**</u> <u>(Table 1)</u>

  Carshare members cited very similar sources of information, regardless of the program named (multiple responses permitted).

  - The primary source of information was word of mouth or referral from a friend or family member, cited by at least a quarter of respondents in both programs (F-26%, Z-28%).

Table 1 – Carshare Information Sources (Flexcar n = 1,397, Zipcar n = 4,094)

Carshare Information Source	Flexcar	Zipcar
Referral from friend/family member	26%	28%
Saw carshare vehicle	18%	20%
- Parked in carshare space	12%	13%
- Parked in other location	4%	4%
- Being driven	4%	8%
Advertisement	17%	16%
Information from Metro	13%	8%
Internet	6%	6%
Saw orange carshare pole	4%	3%
Employer told me	3%	3%
Received information in the mail	2%	2%
Table / promotion at event	3%	1%
Information from local jurisdiction	2%	1%
Media article (newspaper, magazine, tv)	3%	1%
From Zipcar during merger	---	5%

  - About one in five respondents in both programs said they saw a carshare vehicle, parked in a carshare parking space on the street (F-12, Z-13%), parked in a Metro lot or garage (F-4%, Z-4%), or being driven on the road (F-4%, Z-8%).
  - The other most common source was advertisements (F-16, Z-17%).
  - Only one information source, "information from Metro," showed a difference between the two programs. It was cited by 13% of Flexcar members and 8% of Zipcar members as their first source of carshare information.

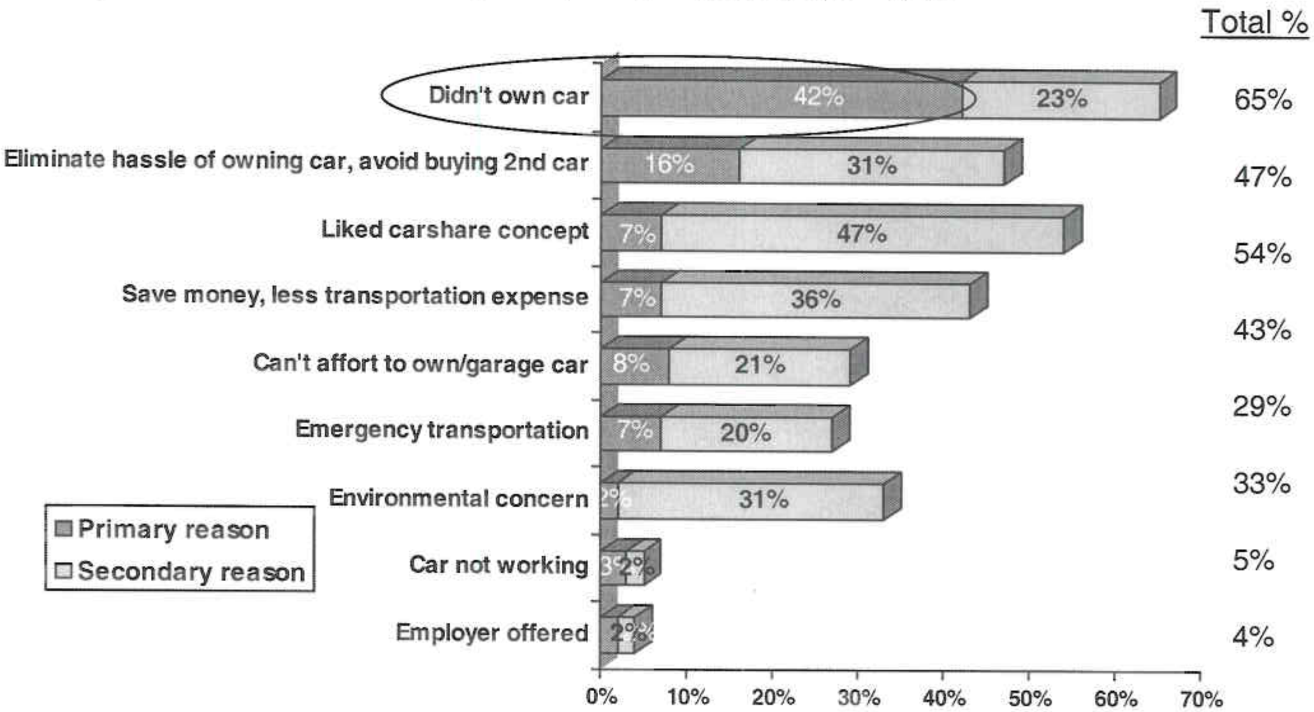
- 5% of respondents said they learned of Zipcar through the merger. Since more than 30% of respondents were former Flexcar members who had converted their memberships to Zipcar, this suggests that most of the former Flexcar members knew of Zipcar before the merger.

- <u>**Reasons for Joining Carshare – Primary and Secondary**</u> (Figure 4)

  Not owning a car, avoiding car ownership, and wanting to save money were important motivations for carsharing.

  - Respondents were asked why they joined a carshare program. They were permitted to offer multiple reasons, then were asked which of those reasons was their <u>primary</u> reason for joining carsharing.

Figure 4 – Carshare Motivations (Primary n = 4,372, Secondary n = 4,379)



- Four in ten (42%) respondents said their primary reason for joining a carshare program because they <u>didn't own a car</u>. Another 23% said this was a secondary reason for their carshare membership.

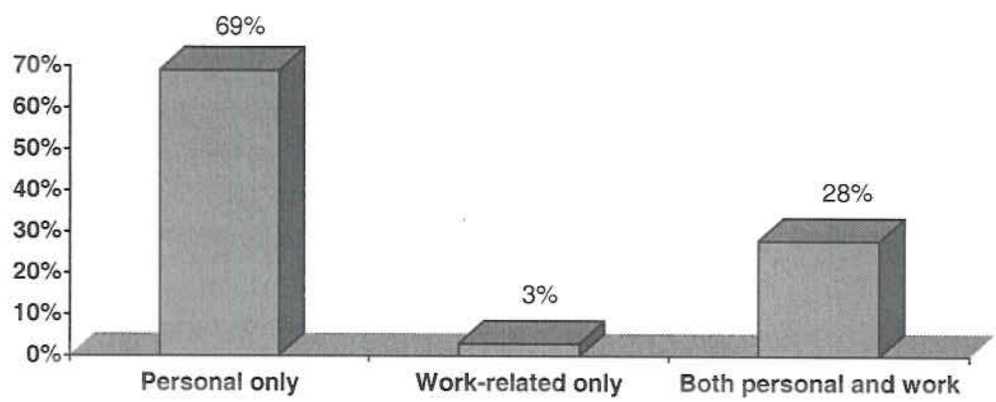
- 16% said they joined a carshare program primarily to eliminate the hassle of owning a car or avoid buying a second car. This was a secondary reason for about three in ten respondents.

- About 15% of respondents said they participte in carsharing primarily for economic or cost saving reasons – to save money or pay less in transportation costs (7%) or because they couldn't afford to own or garage a car (8%). But the opportunity to save money also were secondary motivations for a significant number of respondents.
- 8% of respondents started carsharing because they liked the philosophy or concept of carsharing, but 47% of respondents who cited another primary reason also mentioned this as a secondary reason.
- 7% started carsharing to have access to emergency transportation. Another 20% mentioned this as a secondary reason.
- A third (33%) of respondents said concern for the environment was one motivation to join carsharing, but it was the primary motivation for just 2% of respondents.

Typical Carshare Use

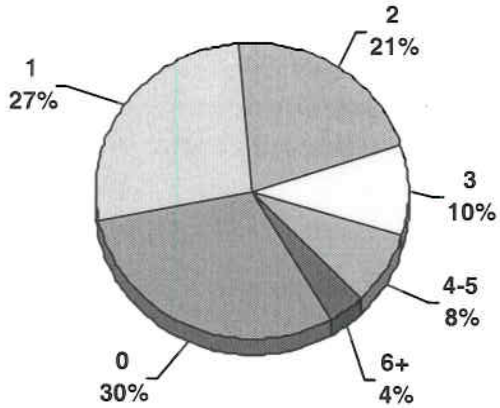
- **Carshare Use** (Figure 5) – While only a small percentage (5%) of carshare accounts were through employers, 28% of respondents said they used their accounts for both personal and work-related trips. The majority of respondents (69%) used carsharing for personal trips only.

Figure 5 – Carshare Trip Use (n = 4,327)



- **Frequency of Carshare Use** (Figure 6)
  - Respondents rented carshare vehicles an average of 1.7 times in the past month.
  - Three in ten respondents said they did not rent a carshare vehicle at all in the past month. About half (48%) said they rented carshare vehicles one or two times. Ten percent rented three times and 12% rented four or more times.

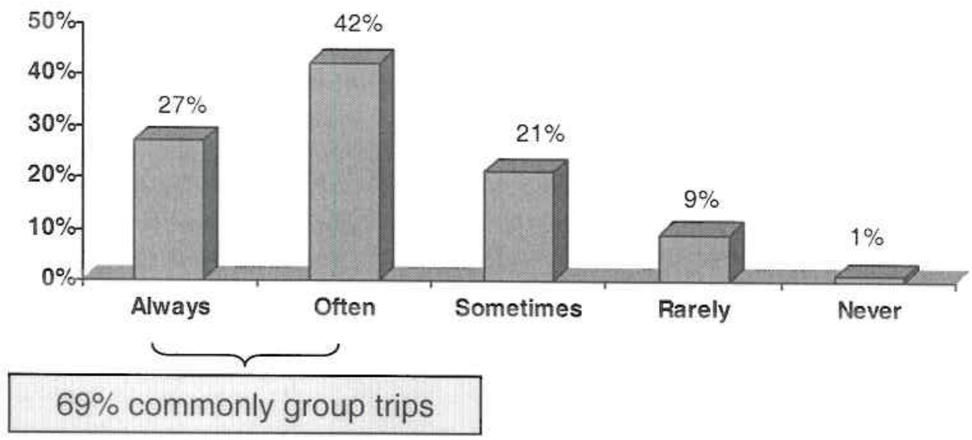
Figure 6 – Carshare Rentals in Past Month (n = 4,327)



- **Timing of Carshare Use – Weekend vs Weekday**
  - Carshare rentals were about evenly divided between weekday (Monday through Friday) and weekend use. 52% of trips were made on weekdays and 48% of trips were made on weekends.
  - But because there are five weekdays and only two weekends, carshare use was actually concentrated on weekends. On average 10% of weekly carshare trips were made each weekday and 24% were made per weekend day.

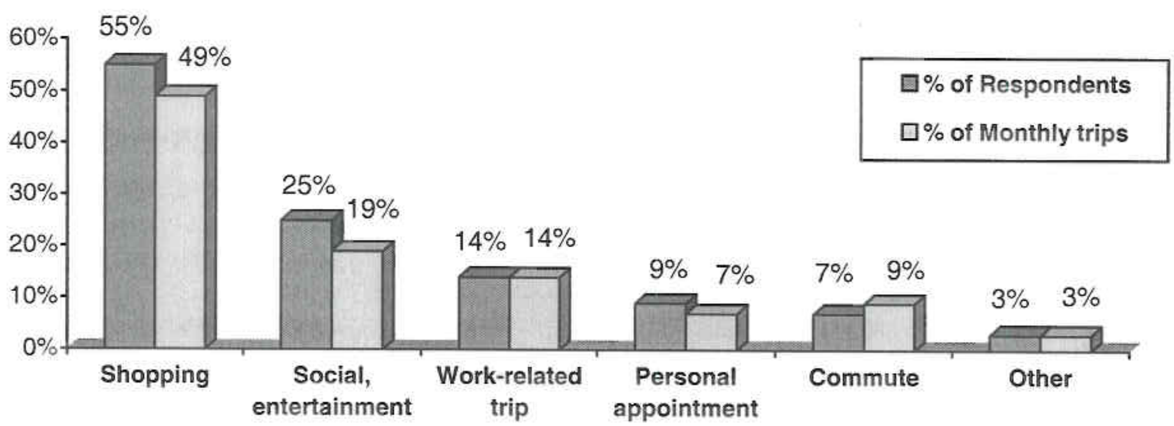
- **Multiple Stops During Carshare Trips** (Figure 7) – Respondents indicated that they frequently grouped or "chained" trips when they were carsharing.
  - 69% of respondents said they "always" or "often" made multiple stops when they rented a carshare vehicle.
  - 21% said they "sometimes" made multiple stops. Only 10% said they "rarely" or "never" made multiple stops.

Figure 7 – Frequency of Multiple Stops on Carshare Rentals (n = 4,243)



- **<u>Carshare Trip Purposes</u>** <u>(Figure 8)</u> – Respondents used carshare vehicles for a variety of trip purposes.

Figure 8 – Distribution of Carshare Trips (n = 4,343)



<u>Average trips per month per member by trip purpose</u>

Shopping – 1.1	Social, entertainment – 0.4
Work-related – 0.3	Personal appointment – 0.1
Commute – 0.2	Other – 0.1

- The most common use was for <u>shopping</u>. 55% of respondents made a shopping trip in the past month and shopping trips accounted for 49% of all carshare trips made. Respondents made an average of 1.1 trips per month for this purpose.

- The second most common use was for social and entertainment trips. A quarter (25%) of respondents rented a carshare vehicle for this purpose. Social/entertainment trips accounted for 19% of all carshare trips.

- Work-related trips, such as for a travel to a meeting, were made by 14% of respondents and accounted for 14% carshare trips.

- About one in ten respondents made a personal appointment trip by carshare and 7% of carshare trips were made for this purpose.

- Commute trips, that is, trips for travel from home to work or school, were made by only 7% of respondents. But commute trips accounted for 9% of total carshare trips made.

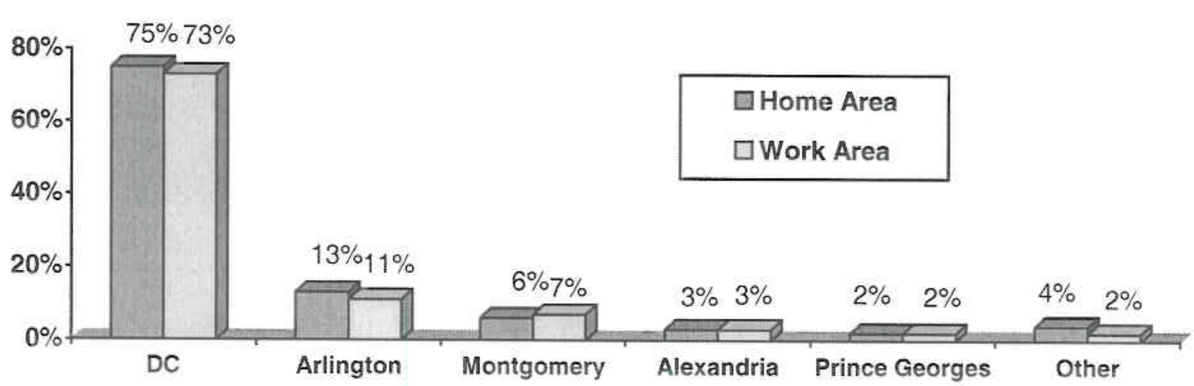
- **Carshare Pickup Locations**

  Respondents were asked where they picked up carshare vehicles, how far these locations were from their homes, work, or school, and the type of parking facility that was used for these vehicles.

  - The primary location for carshare pickup was in the home neighborhood – 91% of respondents said they picked up carshare vehicles at a home-area location. About three in ten (29%) picked up vehicles near their work and 7% picked up vehicles near their school.

  - **Home and Work Areas** (Figure 9) – The primary home pickup area was Washington DC. Three-quarters of respondents said their nearest home area carshare location was in Washington. About 13% of respondents named Arlington County and 6% named Montgomery County.

Figure 9 – Home and Work Pickup Locations (Home n = 3.697, Work n = 1,141)

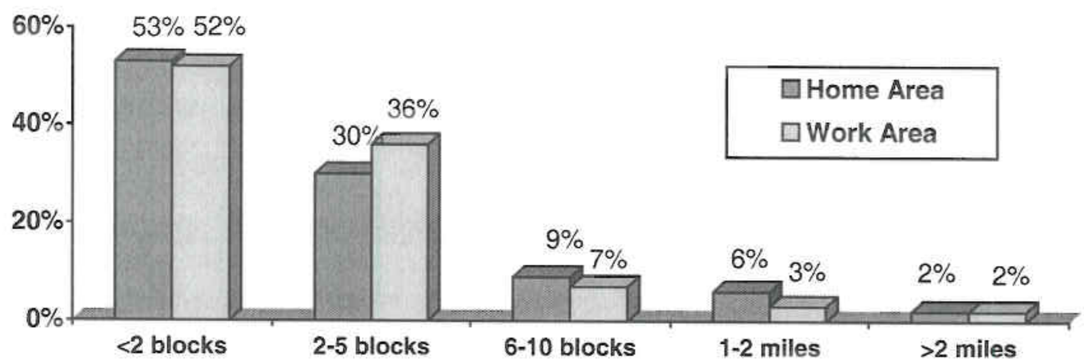


- The work pickup area distribution was similar to the home distribution. Washington was the most named location, with 73% saying their closest work-area carshare location was in this city. About 11% of respondents named Arlington County and 7% named Montgomery County as the location of the carshare location closest to their work.

- Distance to Carshare Pickup Location (Figure 10) – More than half (53%) of respondents who picked up cars near home said they lived within 2 blocks of the carshare parking location and 83% lived within 5 blocks. Only 8% said they lived one mile or more from the parking location.

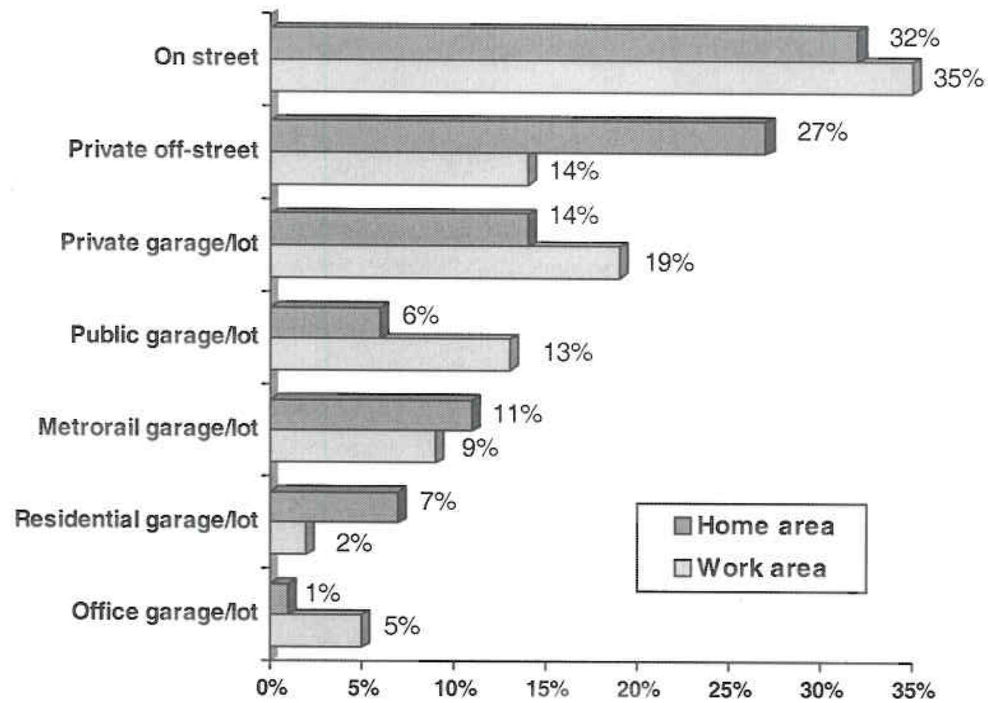
- The distribution for distance to work pickup locations was similar to that for the home locations – 52% worked within 2 blocks of the location and 88% worked within 5 blocks. About five percent worked more than one mile from the pickup location.

Figure 10 – Distance to Home and Work Pickup Locations (Home n = 3,949, Work n = 1,196)



- Type of Parking Location (Figure 11) – Respondents also were asked in what type of facility these vehicle were parked.
  - The dominant facility was on-street parking spaces for both home (32%) and work (35%) pickup locations.
  - Private, off-street spaces were noted as the parking facility for 27% of home-area carshare vehicles and for 14% of work-area vehicles.
  - Public or private garages were named as the locations for 20% of home area vehicles and 33% of work-area vehicles.
  - About one in ten vehicles in both the home area and work area were parked in Metrorail lots or garages.

Figure 11 – Parking Facility Home and Work Pickup Locations
(Home n = 3.907, Work n = 1,165)

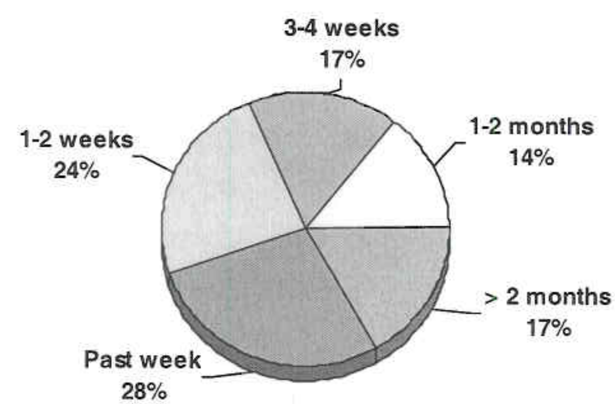


Most Recent Carshare Use

Respondents were asked details about their last carshare rental. Highlights of these results are shown below.

- **When Carshare Last Rented** (Figure 12) – About three in ten (28%) respondents said they rented a carshare vehicle within the past week. Another quarter (24%) said one to two weeks ago. And 17% had rented a carshare vehicle three to four weeks ago. The remaining 31% had last used carsharing at least one month ago.

Figure 12 – When Was Most Recent Carshare Rental (n = 4,175)



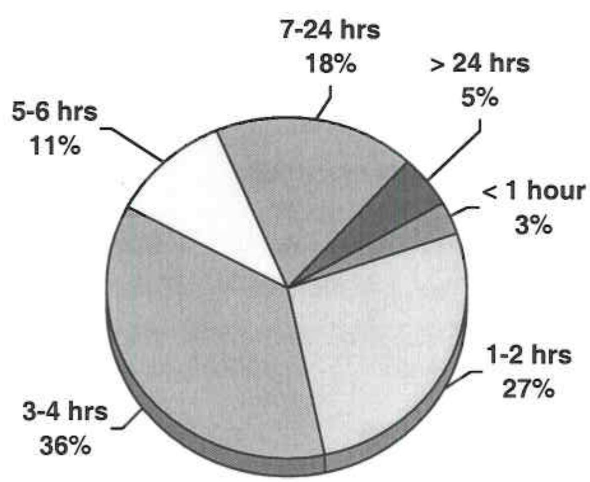
- **<u>Day, Time, and Duration of Last Rental</u>**

  - <u>Day of Week</u> – About half (52%) of respondents said they last rented a carshare vehicle on a weekday. A third (33%) of respondents' most recent rental was on a Saturday. The remaining 15% rented last on a Sunday. These results closely tracked the results respondents reported for their carshare trips during the "last month."

  - <u>Time of Day</u> – Carshare rentals were distributed throughout the day, but the majority of vehicle pickups were during the late morning to midday hours:
    - 5 am – 9:59 am 18%
    - 10 am – 2:59 pm 42%
    - 3 pm – 7:59 pm 31%
    - 8 pm – 11:59 pm 8%
    - Midnight – 4:59 am 2%

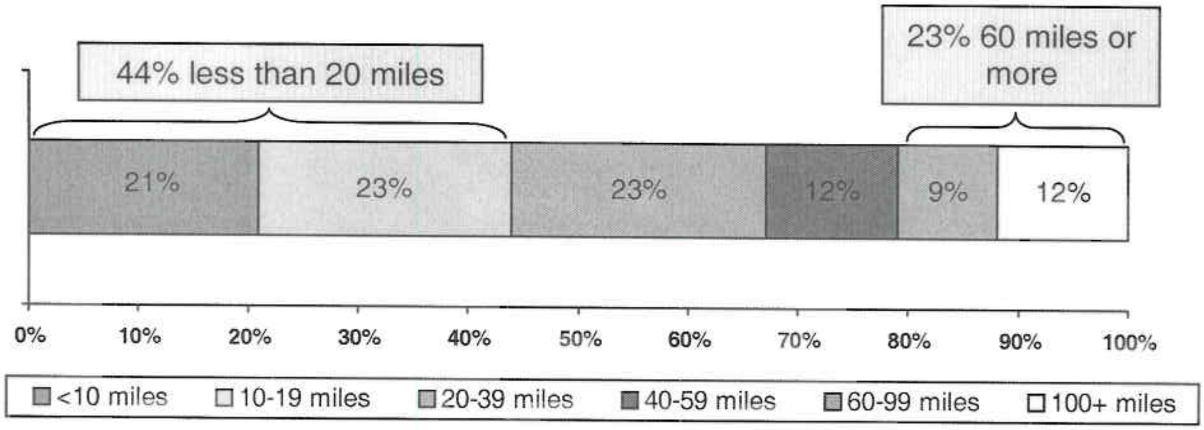
  - <u>Duration of Rental</u> (Figure 13) – A third (33%) of carshare rentals were less than 2 hours long. Another 36% were between 3 and 4 hours. About a quarter (23%) of rentals lasted longer than 6 hours.

Figure 13 – Duration of Most Recent Carshare Rental (n = 4,113)



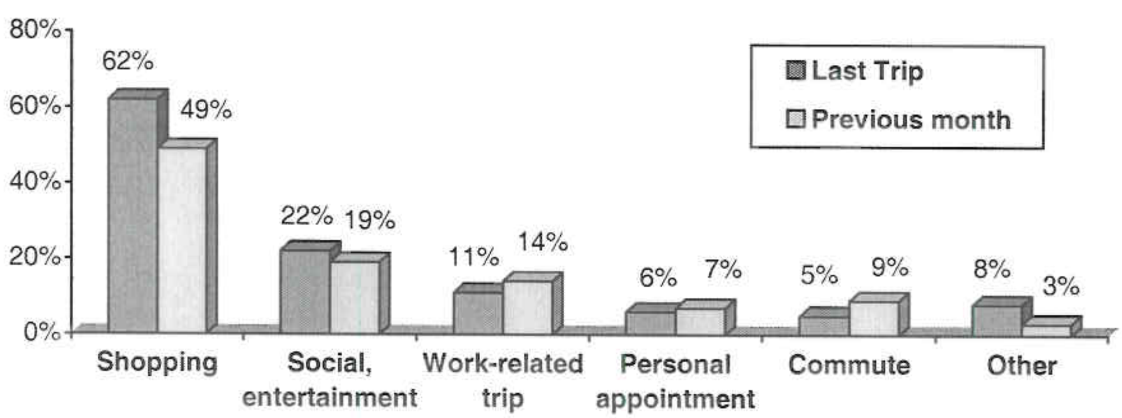
- **<u>Length of Carshare Trip</u>** (Figure 14) – The average carshare trip was 48 miles. But more than four in ten (44%) carshare trips were less than 20 miles long and 67% were less than 60 miles long. 12% of trips were more than 100 miles.

Figure 14 – Length of Carshare Trips in miles (n = 4,243)



- **<u>Carshare Trip Purposes</u>** (Figure 15)
  - 62% of respondents said they made a trip or stop for shopping on their last carshare rental. 22% said their last carshare rental included a trip or stop for social or entertainment purposes and 6% used carsharing last for a personal appointment.

Figure 15 – Distribution of Carshare Trips (Multiple response permitted), (Last Trip n = 4,204, Previous Month Trip n = 4,343)



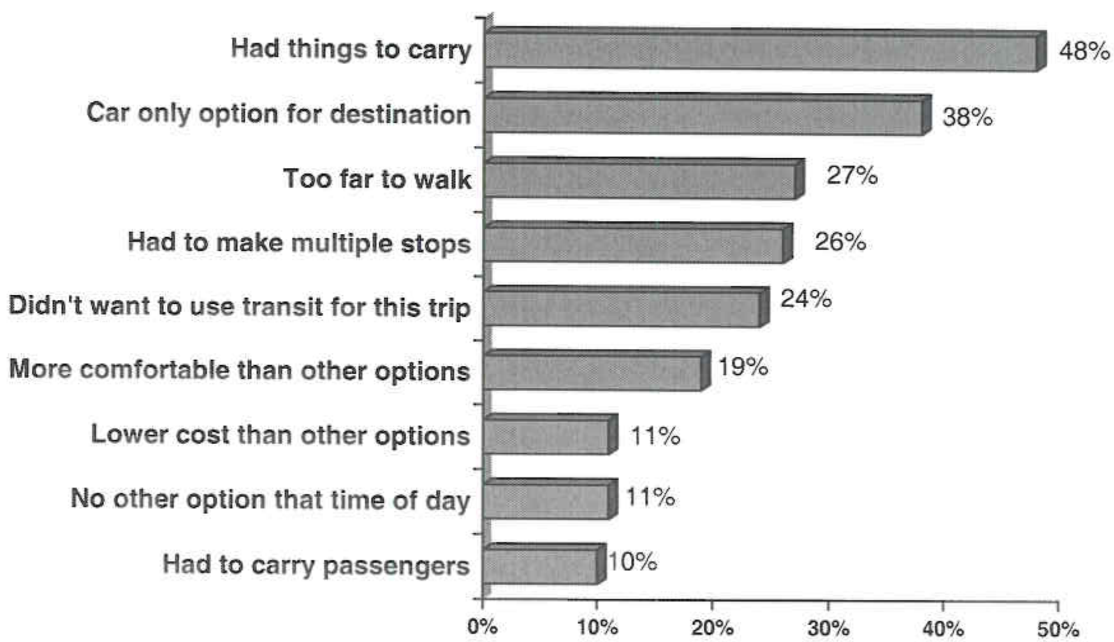
  - About one in ten (11%) respondents noted making a work-related trip and 5% said their last carshare rental was for a trip from home to work or school.

- Figure 13 also shows the trip purposes for all trips reported by respondents over the past month (repeated from Figure 8). Respondents noted a higher percentage of recent shopping trips compared to the percentage of shopping trips reported in the last month total. The survey was conducted during March and early April, well after the December holiday period, so it's unlikely that holiday shopping constituted a large share of "last trips" except for the small number of respondents whose last trip was more than 2 months ago. It's more likely that some respondents forgot to count some shopping trips or stops when they were reporting trips in the previous monthly count.

- **Multiple Stops on the Trip** – Just over a third of respondents (37%) said they made just one stop on the last carshare rental. About half (52%) of respondents said they made 2 to 3 stops on the trip and 11% said they made 4 or more stops.

- **Reasons for Using Carshare for this Trip** (Figure 16) – Respondents were asked why they used carsharing for the last trip. The most common reasons focused on characteristics of the trip that made it difficult to travel by means other than a personal vehicle.

Figure 16 – Reasons for Using Carshare for the Last Trip (n = 4,310)



- The most noted reason was the need to carry or transport items (48%) and 10% said they needed to carry passengers.

- The second most common reason was that a vehicle was the <u>only option for this destination</u>, because public transit did not serve the destination (38%). About one in ten (11%) respondents said <u>no other option was available at the time of day</u> they needed to travel.

- About a quarter (27%) of respondents said the trip was too far to walk and 26% said they had to make multiple stops.

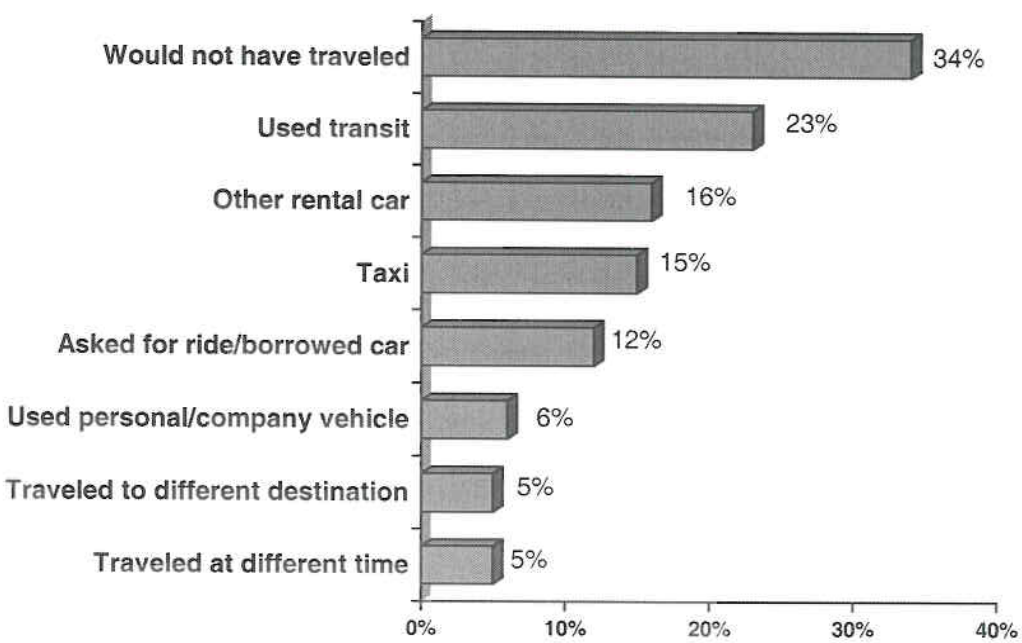
- 19% of respondents said they used carsharing for this trip because it was more comfortable than other options they could have used and 11% said they used carsharing because it was lower cost than other options.

- **<u>Travel Options if Carshare Not Available</u>** (Figure 17)

  - A significant number of respondents <u>would not have made the trip in its current form if carsharing had not been available</u>. A third (34%) said they would not have traveled at all, 5% would have traveled to a different destination, and 5% would have traveled at a different time of day.

  - The remaining respondents said they would have <u>used a different type of transportation</u>, most likely transit (23%), another rental car (16%), or a taxi (15%). About one in ten would have asked for a ride or borrowed a car.

Figure 17 – Travel Options if Carshare not Available (n = 4,196)

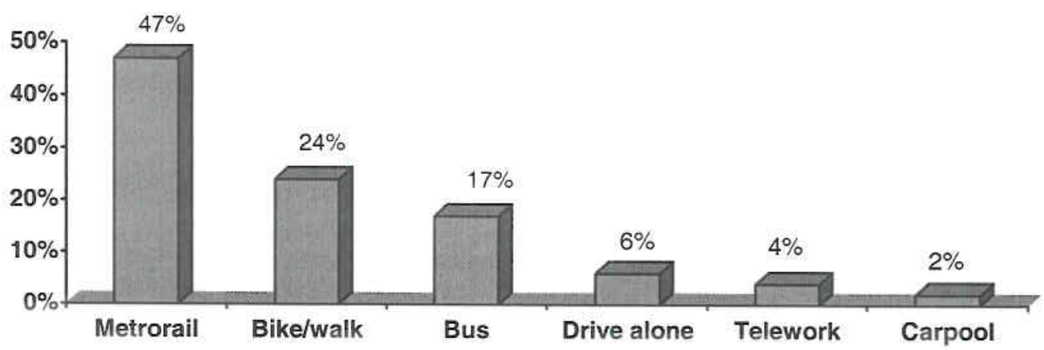


Work Travel Patterns of Carshare Users

- **Employment Status** – More than nine in ten (93%) of respondents said they were employed, either full-time or part-time. Another 3% of respondents were students who lived off campus. These respondents were asked about their travel from home to work or to school.

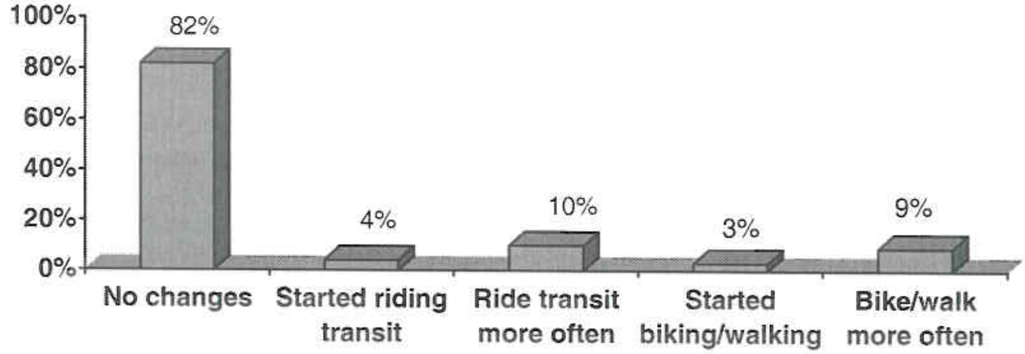
- **Commute Mode** (Figure 18) – Alternative modes were the overwhelming choice for work/school commute trips.
  - Respondents made nearly half (47%) of their work/ school commute trips by Metrorail and 17% by bus. A quarter (24%) of commute trips were made by biking or walking.
  - Only 6% of commute trips were made by driving alone and only two respondents said they used carsharing as a regular commute mode.

Figure 18 – Commute Mode of Carshare Respondents (n = 4,243)



- **Changes in Commuting Since Joining Carshare** (Figure 19) – About two in ten respondents said they made a change in their commute travel since joining carsharing.
  - 7% of respondents started using an alternative mode, either transit (4%) or bike/walk (3%). 10% said they ride the bus or train more often and 9% said they bike or walk more often than before carsharing.
  - Among respondents who made a commute change, almost four in ten (39%) said they previously drove alone to work all or most days. These respondents represent about two percent of all survey respondents. Other respondents who made a change shifted from another alternative mode.
  - About three in ten respondents who made a change said they were unlikely to have made the change if carsharing had not been available. This represented about 2% of all survey respondents.

Figure 19 – Commute Changes Since Joining Carsharing (n = 4,075)

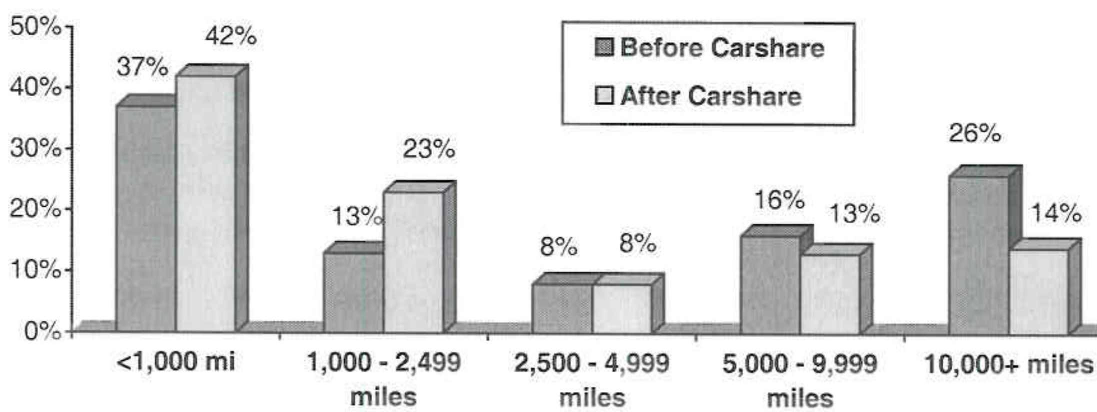


Changes in Travel Patterns Before and After Joining Carsharing

Respondents were asked about their use of autos and other modes of travel before and after joining carsharing. Respondents reported reductions in annual vehicle miles of driving, drive alone trips, and auto ownership, after joining carsharing.

- **Annual Miles Traveled by Driving Alone** (Figure 20) – Respondents drove an average of 5,588 miles per year before carsharing. After joining carsharing, respondents drove an average of 3,405 miles per year, a reduction of about 2,200 miles annually.

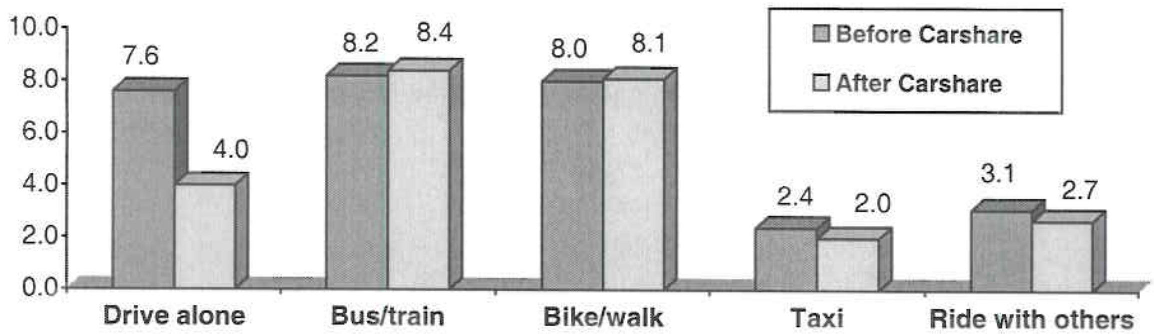
Figure 20 – Annual Average Miles Traveled by Driving Alone
(Before Carsharing n = 2,372, After Carsharing n = 2,425)



- Before carsharing, about four in ten (39%) respondents drove 5,000 or more mile per year. After joining carsharing, only 27% of respondents drove 5,000 or more miles per year.

- **Use of Various Travel Modes** (Figure 21) –.Respondents also reported a reduction in the number of weekly trips made by driving alone after joining carsharing.

Figure 21 – Weekly Trips by Mode
(Before: DA n = 1,650, Bus/train n = 1,955, B/W n – 3,408, Taxi n = 3,752, RWO n = 1,833)
(After: DA n = 2,588, Bus/train n = 3,432, B/W n – 3,101, Taxi n = 1,642, RWO n = 1,792)



- Respondents made an average of 7.6 drive alone trips before carsharing and 4.0 drive alone trips after joining carsharing, a drop of 3.6 weekly drive alone trips.

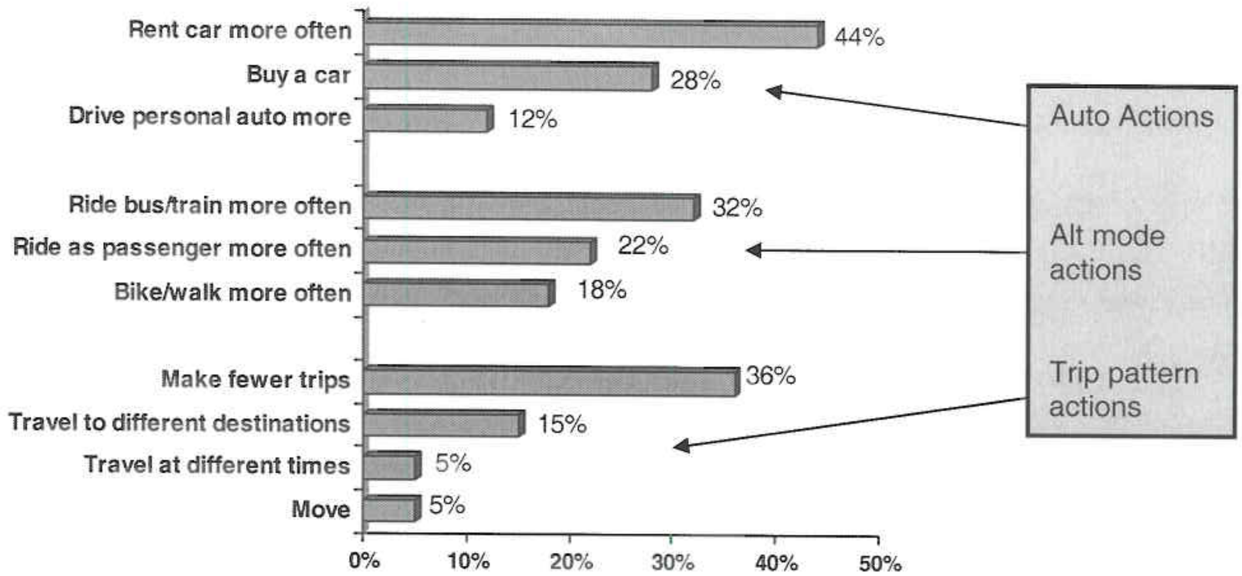
- Respondents did not make significant changes in the number of trips made by other modes. This suggests they eliminated trips, rather than replacing them with other modes of travel.

- **Expected Action if Carsharing Was No Longer Available** (Figure 22)

  - **Use Other Auto Option** – Respondents noted numerous possible actions they would take if carsharing was no longer available. A large segment of respondents said they would take actions that afforded them continued vehicle access. Nearly four in ten (44%) respondents said they would use a taxi more often, 28% said they would buy a car, and 12% would drive more often in a vehicle they currently own.

  - **Use Alternative Modes** – A sizeable percentage of respondents said they would use alternative transportation options more often, including bus/train (32%), ride as a passenger more often (22%), bike/walk (18%).

Figure 22 – Likely Actions if Carshare not Available (n = 4,201)



- <u>**Alter Trip Making Patterns**</u> – But numerous respondents reported that the loss of carsharing would alter their ability to make the types of trips they now make when they make them. More than a third (36%) said they would make fewer trips, 15% said they would travel to different destinations, and 5% said they would travel at different times of day.

<u>Changes in Auto Ownership and Home/Work Location Since Joining Carsharing</u>

Respondents were asked about other changes they might have made since joining carsharing. These results are summarized below.

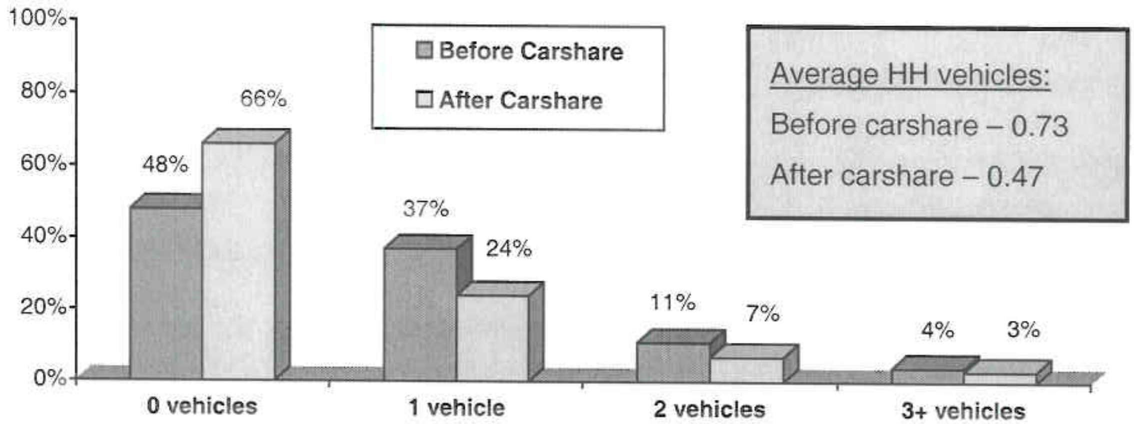
- <u>**Vehicle Ownership** (Figure 23)</u> – Before joining carsharing, respondents owned or leased an average of 0.73 vehicles per household. After joining carsharing, the average vehicles per household dropped to 0.47, <u>a reduction in 0.26 vehicles per household.</u>

  - Before joining carsharing, about half (48%) of respondents did not own or lease a car for personal use. After joining carsharing, 66% of respondents did not own a vehicle, thus <u>18% of respondents eliminated the only vehicle in the household</u>.

  - The majority of the drop appears to have been in one-vehicle households, but slight drops were observed in 2 vehicle households also.

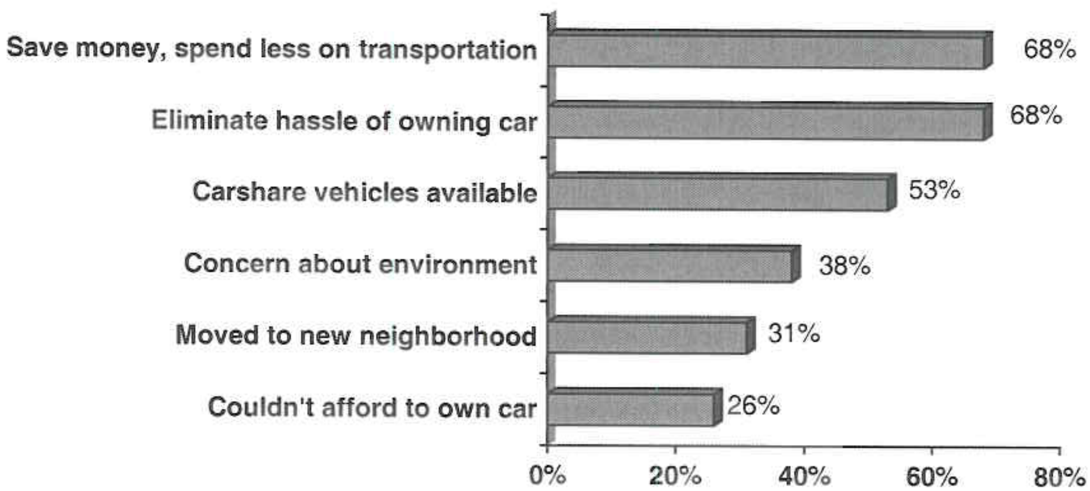
  -

Figure 23 – Vehicles Owned / Leased by Household
(Before Carsharing: n = 4,208, After Carsharing n = 4,226)



- **Reasons for Reducing Vehicles in Household** (Figure 24) – Respondents who had eliminated a household vehicle were asked why they had done so.

Figure 24 – Reasons for Eliminating Household Vehicle (n = 1,121)



- Saving money (68%) and avoiding hassles of car ownership (68%) were the most common reasons to eliminate a household vehicle. But more than half of respondents cited availability of carshare vehicles as a motivation for reducing car ownership.

- And 42% of respondents who reduced a household vehicle said they were somewhat unlikely (19%) or very unlikely (24%) to have made this change if carsharing had not been available.

- **Avoided Purchasing Vehicle** – 25% of respondents said they considered buying a vehicle after they became a carshare member, but didn't do so.
  - Carsharing appeared a significant factor in their decision not to buy a vehicle. Six in ten said they were either very likely (21%) or somewhat likely 40% to have purchased a vehicle if carsharing had not been available.

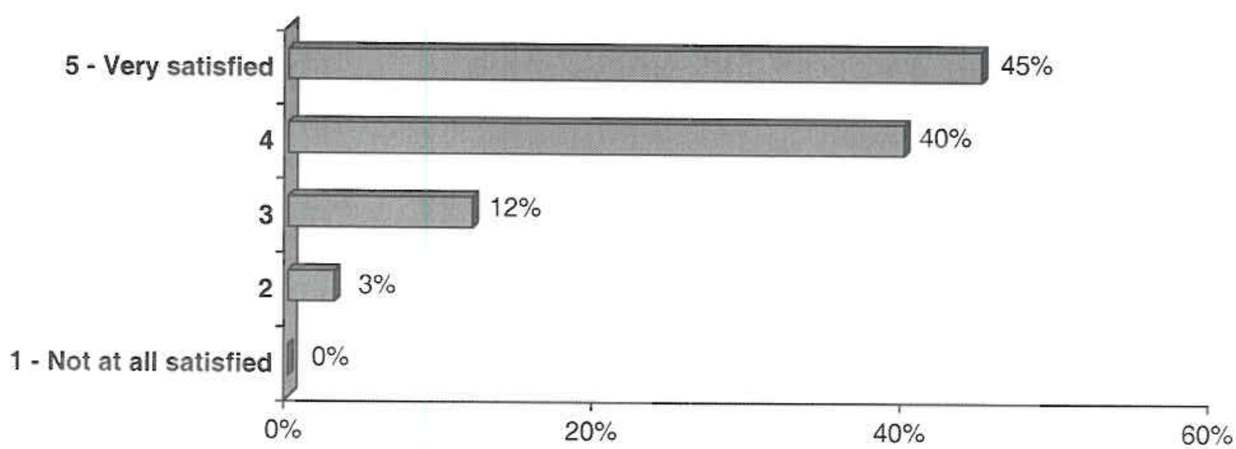
- **Move Home or Work Location** – 42% of respondents said they had moved their home and/or work locations since joining carsharing.
  - Although carsharing was available at both the old and new locations, carsharing does not appear to have been a significant factor in the decision to move or not to move. Seven in ten said they were likely or very likely to have made the move even if carsharing had not been available.
  - Only 14% said they were either somewhat or very unlikely to have made the move without carsharing.

Carshare Satisfaction

Respondents were asked how satisfied they were with their carshare experience. These results are summarized below.

- **Overall Satisfaction** (Figure 25) – Respondents had quite high satisfaction with carshare programs. 85% rated carsharing a 4 or 5 on a five-point scale. Only 3% said they were unsatisfied with carsharing.

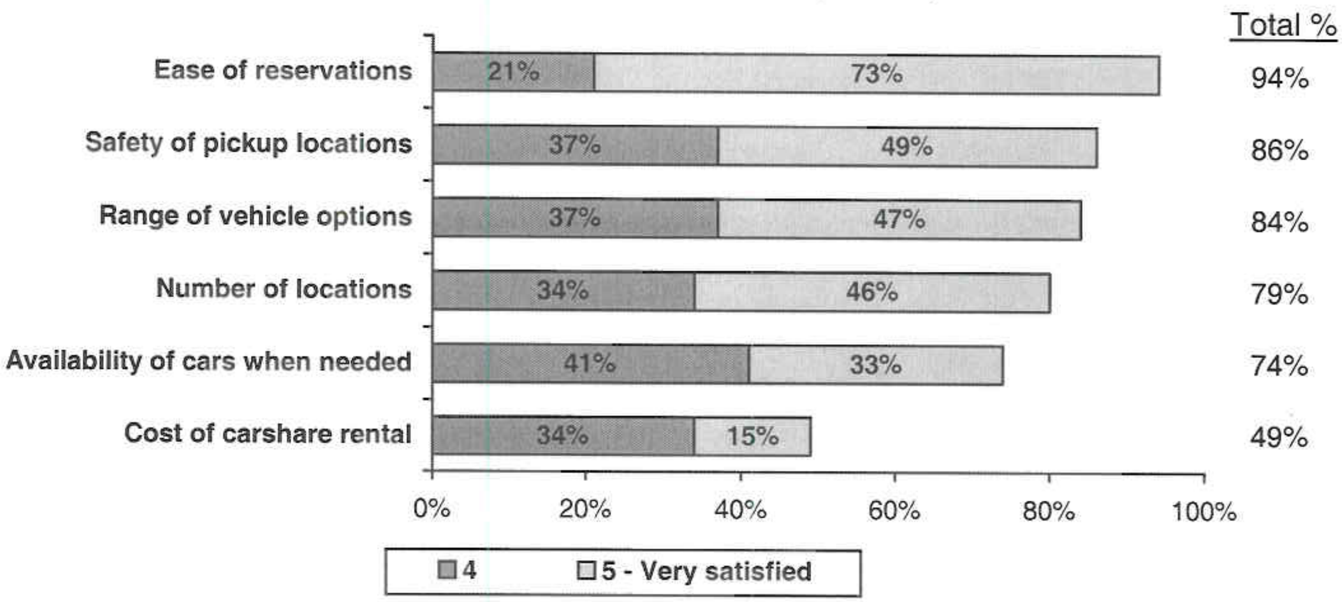
Figure 25 – Overall Carshare Satisfaction (n = 4,270)



- Three quarters (76%) of respondents said they were very likely to recommend carsharing to others and 20% said they were somewhat likely to recommend it. Only 2% said they were somewhat or very unlikely to recommend carsharing.

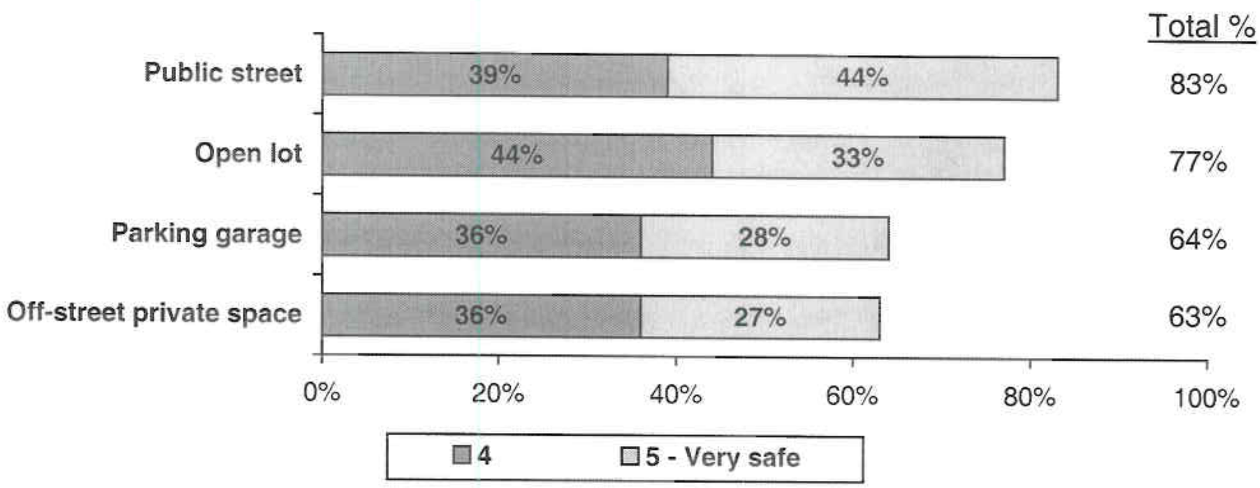
- **Satisfaction on Carshare Characteristics** (Figure 26) – Respondents gave generally high marks to most carshare features.
  - More than eight in ten gave ratings of 4 or 5 to "ease of reservation," "safety of pickup location," and "range of vehicle options." And at least three-quarters were satisfied with the number of locations and the availability of cars.
  - But respondents were much less satisfied with the cost of carshare rentals. Only about half of respondents gave a rating of 4 or 5 to this feature.

Figure 26 – Carshare Satisfaction by Program Characteristic (n = 4,169)



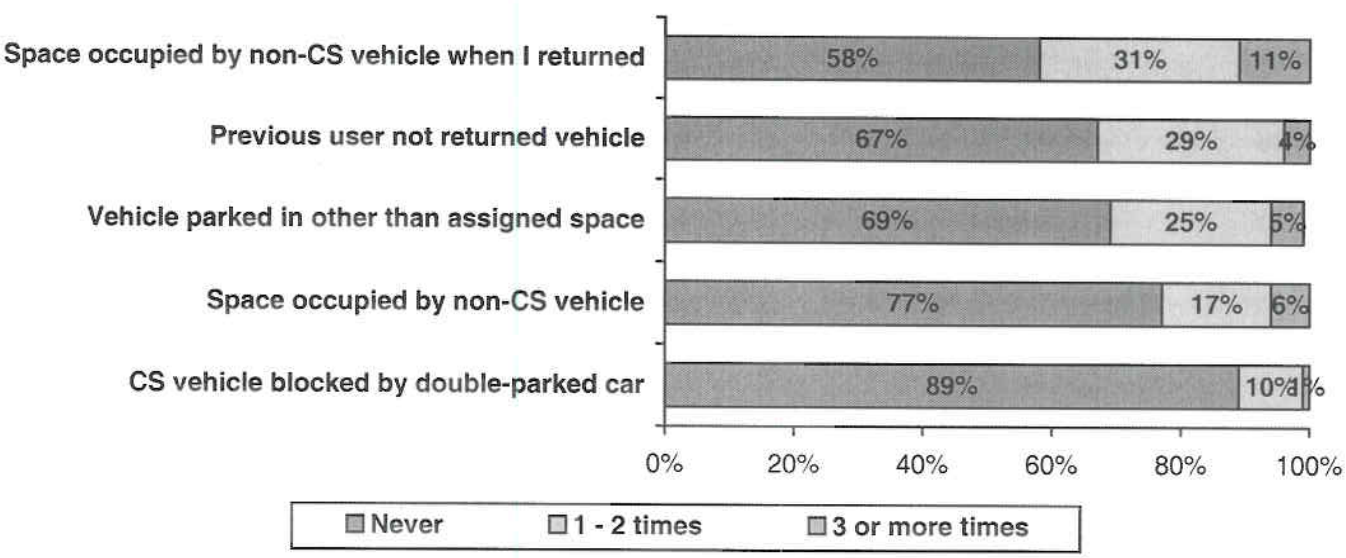
- **Safety of Pickup Locations** (Figure 27) – Respondents were asked how safe they would feel picking up cars in various types of parking facilities, including street spaces, open lots, garages, and off-street parking.
  - Respondents gave the highest safety marks to on-street parking; 83% of respondents rated these spaces at least a 4 on a 5-point scale. About three-quarters gave ratings of 4 or 5 to open lot parking.
  - But less than two-thirds of respondents gave ratings of 4 or 5 to either parking garages (64%) or off-street private spaces (63%).

Figure 27 – Ratings for Safety of Carshare Pickup Locations (n = 3,877)



- **Carshare Street Parking Issues** (Figure 28) – The survey tested the incidence of several possible pickup and drop-off issues that respondents could have encountered. Respondents who used vehicles that were parked in on-street spaces were asked how often each had occurred.

Figure 28 – Incidence of Street Parking Pickup and Drop-Off Issues (n = 1,420)



- The most common problem was that the space was occupied by a carshare vehicle when the respondent returned the vehicle, making it impossible to park in the assigned space. Three in ten (31%) respondents noted that this had happened one or two times and 11% said it had happened three or more times.

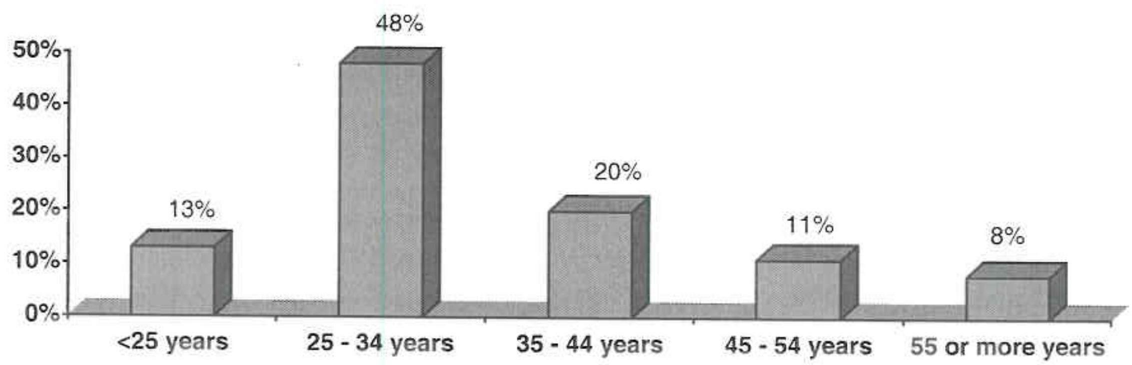
- A second issue was that the previous carshare user had not returned the vehicle on time, so the next user could not pick it up as scheduled. About three in ten (29%) respondents said they had experienced this problem one or two times and 4% said it had happened three or more times.
- Similar percentages of respondents said they had found the carshare vehicle parked in other than its assigned space. A quarter of respondents noted this had happened one or two times and 4% said it had occurred three times or more.
- About a quarter of respondents said they had experienced the problem of the space being occupied by a non-carshare vehicle when trying to pickup the car, making it difficult to find the carshare vehicle. 17% said this had happened one or two times and 6% said they encountered this issue three or more times.
- Finally, respondents were asked if the space had been blocked by a double-parked car. Only 10% of respondents said it had ever happened and only 1% of respondents said it had happened three or more times.

Respondent Demographics

The demographic characteristics of respondents are presented below.

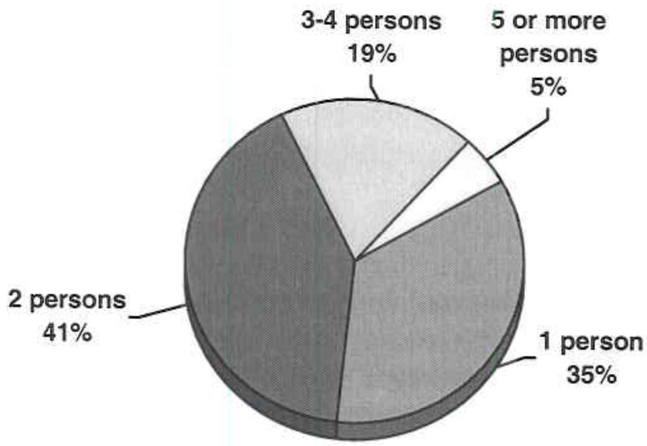
- **Age** (Figure 29) – Carshare members who responded to the survey were relatively young. More than six in ten were under 35 years old. Only 19% were 45 years of age or older.

Figure 29 – Carshare User Age Distribution (n = 4,271)



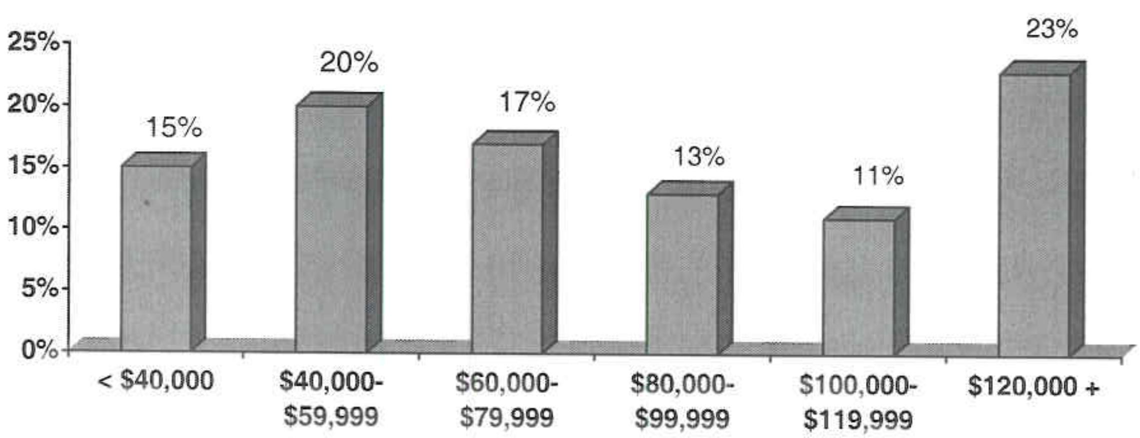
- **Household Size** (Figure 30) – Respondents' household sizes were relatively small. A third of respondents lived alone and four in ten said their household had only two persons. The remaining 24% lived in a household with three or more persons.

Figure 30 – Household Size (n = 4,116)



- **Income** (Figure 31) – About a third of respondents had household incomes of less than \$60,000 per year, 30% had incomes of \$60,000 to \$99,999, and 34% had incomes of \$100,000 or more per year.

Figure 31 – Income (n = 3.559)



- **Distance from Home to Bus Stop** – A large majority of respondents (81%) lived less than ½ mile from the nearest bus stop. Another 14% lived between ½ mile and 1 mile away. The remaining 5% lived more than 1 mile away.

Initial Results from 2008 Vanpool Driver Survey
April 15, 2008

ITEM # 4

Overview and Objectives

- Survey drivers of all registered vanpools operating in Washington metro area
- Update to survey conducted in 2002
- Objectives
  - Define vanpool operation patterns
  - Examine characteristics of van ownership and use
  - Identify van assistance received by drivers

Survey Methodology Summary

Replicate method used in 2002 with additional internet options

- Include vanpool drivers registered in vanpool databases (VPSI, RADCO, PRTC, Commuter Connections)
- Solicitation process
  - Prepared survey solicitation packets (questionnaire, intro letter, survey reply options)
  - Mailed survey packets directly to drivers
  - For RADCO, solicit drivers through vanpool operators (names of drivers not available)
- Drivers offered four methods to complete survey – fax back, mail back, telephone, online
- Conducted telephone follow-up for non-respondents

Survey Sample

Distributed 845 survey packets

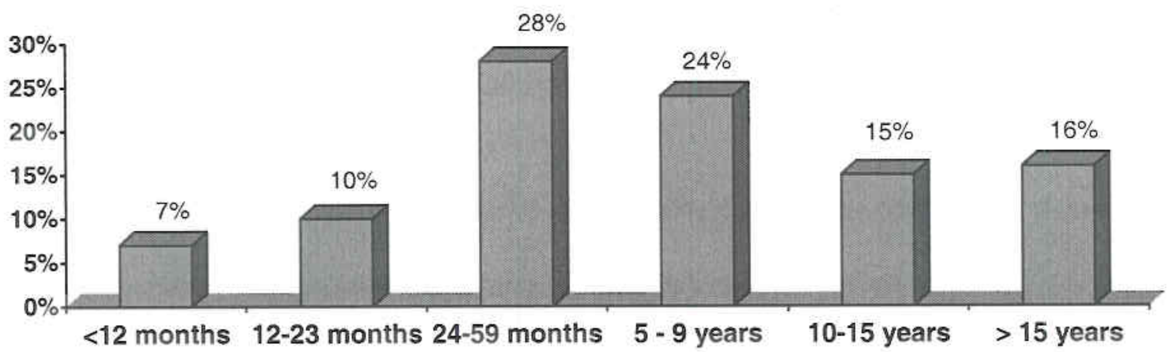
- Received 408 completed responses – 48% response rate (note that the rate does not take into account undeliverable packets. When these are removed from the sample frame, the response rate will be higher).

HIGHLIGHTS OF ANALYSIS RESULTS

Vanpool Characteristics

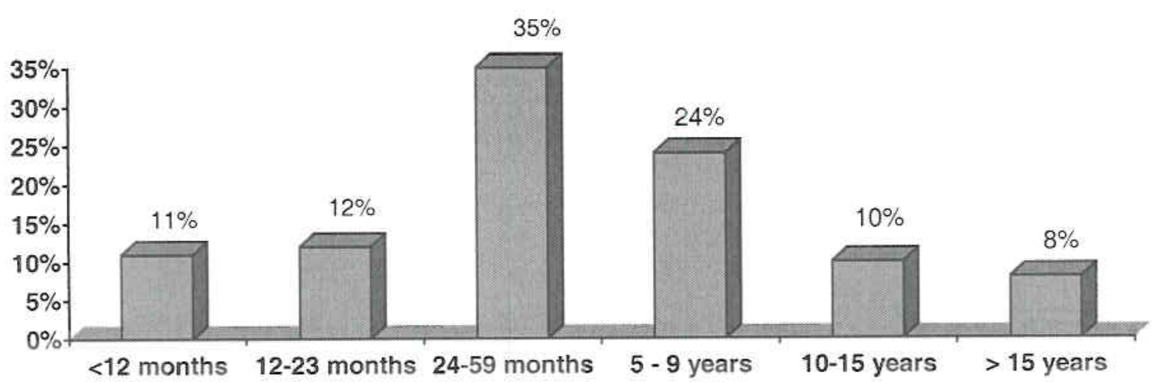
- **Length of Time Vanpool Operating** (Figure 1)
  - On average, vanpools have been in operation for 9.9 years, considerably longer than the average of 8.4 years measured in the 2002 vanpool survey.
  - More than four in ten (45%) have been in operation for less than five years. A quarter (24%) of the vanpools have operated for between five and nine years, and another third (31%) have been in operation for 10 years or longer.

Figure 1 – Vanpool Operation Duration (n = 408)



- **Length of Time Driver Has Been Driving Vanpool** (Figure 2)
  - Respondents have been driving the vans for an average of 6.0 years, about the same amount of time as was observed in 2002 (6.4 years).

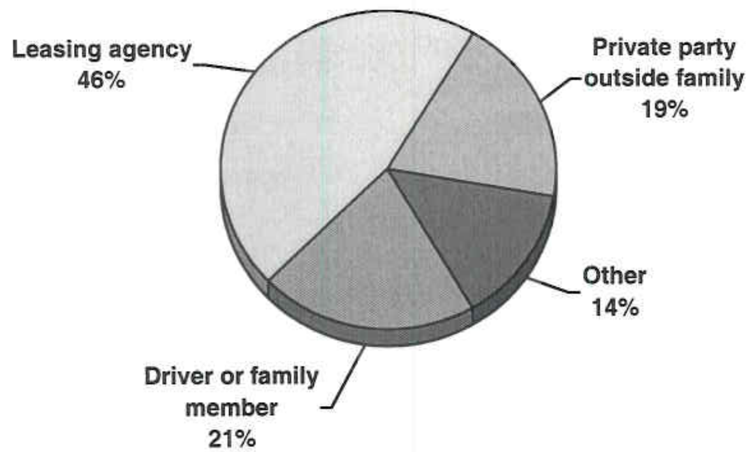
Figure 2 – Vanpool Driver Tenure (n = 408)



- About a quarter (23%) of drivers have been driving for less than two years and a third (35%) have been driving at least two years but less than five years. The remaining respondents were divided between driving five to nine years (24%) and driving ten years or longer (18%).

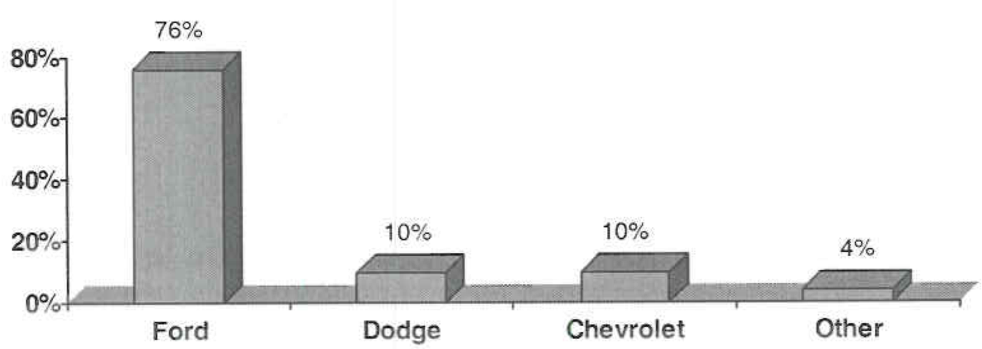
- **Who Owns the Van** (Figure 3)
  - Respondents were asked who owned the van they operated. The largest share of vans were owned by a leasing agency (45%), followed by the respondent themselves or a family member (21%).

Figure 3 – Vanpool Ownership (n=408)



- **Van Model and Year** (Figure 4)
  - Three-quarters (76%) of respondents drive a Ford van. About one in ten drives a Dodge and one in ten drives a Chevrolet. The remaining 4% of respondents drive another make of van. The model year of the vans vary from 1991 models to 2008 models. 76% of the vans are model year 2003 or later.

Figure 4 – Van Model (n = 408)

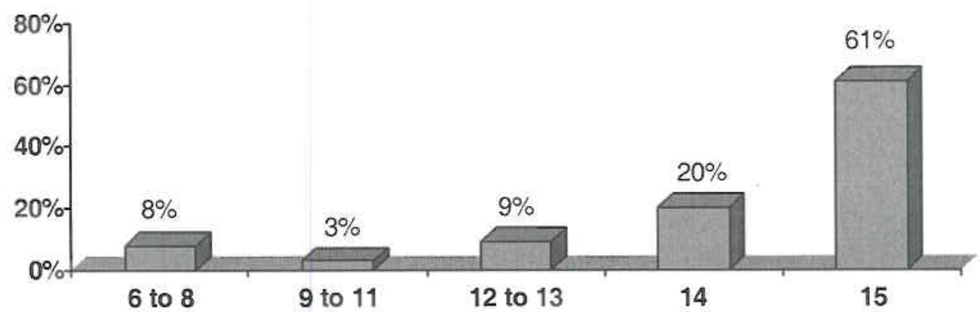


- **Van Seating Capacity** (Figure 5)

  - Respondents were asked how many passengers could be carried in the van, if every seat was filled. Van capacity ranged from a low of 6 people to a high of 15 people, with an average capacity, including the driver, of 13.8 people.

  - 61% of the vans were traditional commuter vans, with capacity for 15 passengers. 20% of the vans carry 14 passengers. The remaining 20% carry between 6 and 13 passengers.

Figure 5 – Van Seating Capacity (n = 399)



- **Details of Insurance**

  The survey asked three questions related to van insurance. What type of insurance do you have? Who pays the insurance cost? And what is the annual insurance cost?

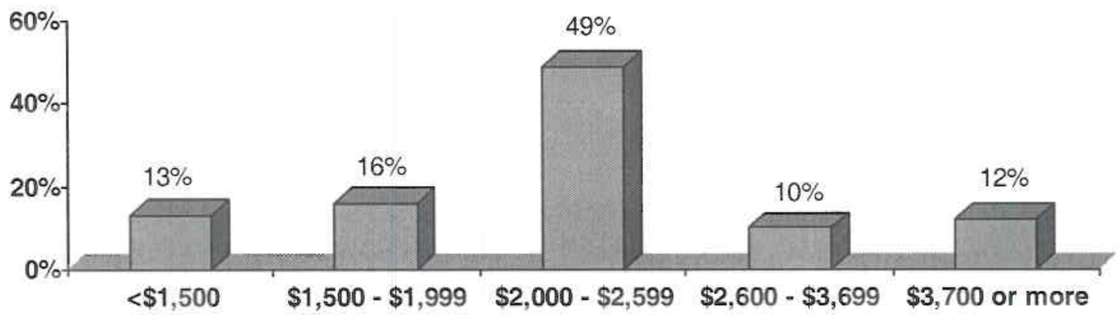
  - **Type of Insurance** – About 56% of respondents said they carry commercial insurance and 6% have personal insurance. Another 9% carry another type of coverage. But nearly three in ten (29%) said they were unsure of the type of insurance they have.

  - **Who Pays Insurance Cost** – About six in ten (61%) respondents said the van owner is responsible for the payment of the insurance and 14% said the van driver was responsible. About two in ten (18%) said someone else paid the insurance. Eight percent of respondents were unsure of who pays for the insurance.

  - **Annual Insurance Cost** (Figure 6) – A large majority (74%) of respondents were unsure of the cost of their van insurance. This could be due to the fact that many drivers do not own the van they drive, and, in most cases, the van owner pays the insurance.

- Among those who gave an annual insurance cost for their van, the cost ranged from a low of $500 to a high of $10,000. Three in ten (29%) paid less than $2,000. Half (49%) paid between $2,000 and $2,599 per year. 12% paid $3,700 or more per year for insurance. The mean cost was $2,548 and the median was $2,106.

Figure 6 – Annual Insurance Cost (n = 76)



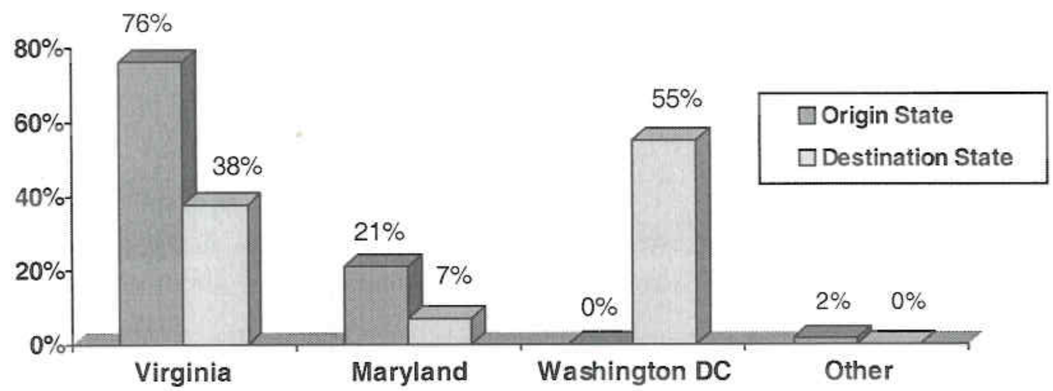
Vanpool Travel Patterns

A second section of the questionnaire asked about vanpool occupancy, origin and destination, number and locations of passenger pick-up and drop-off locations, and travel distance and time. Results to these questions are described below.

- **Usual Vanpool Size and Number of Riders on Most Recent Wednesday**
  - The survey asked vanpool drivers how many people, including the driver, "usually" ride in the vanpool. The average (mean) number of people, including the driver, who usually ride in the vanpool was 10.5 people.
  - About half (47%) of the vanpools usually have 10 or fewer passengers. About three in ten (29%) usually have 11 or 12 riders. The remaining 24% said they usually have 13-15 riders.
  - Respondents also were asked how many people rode in their vanpool on the Wednesday prior to the survey. This question examined the actual number of people who would be likely to ride on a typical day, recognizing that some absenteeism is to be expected.
  - On average, 9.0 people, including the driver, rode in the van that day. This indicates that the average absenteeism rate is about 1.5 people, compared to the 10.5 people who "usually ride" in the van.

- **Vanpool Origin and Destination Locations** (Figure 7)
  - The large majority of the vanpools (76%) originate in Virginia. Nearly all of the remaining respondents (21%) said their vanpool originates in Maryland. The remaining two percent of vanpools originate either in Pennsylvania or West Virginia.

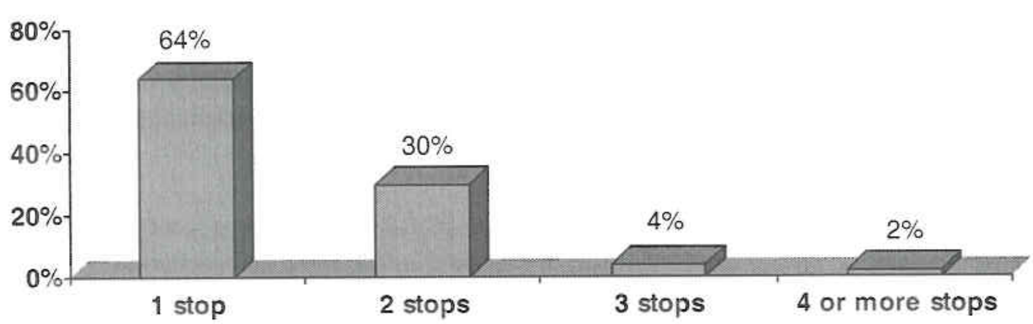
Figure 7 – Vanpool Origins and Destinations (Origin n = 408, Destination n = 225)



  - A majority (55%) of the respondents said their vanpools were destined for Washington DC. Virginia was the destination of about a four in ten (38%) of the vanpools and Maryland was the destination of 7%.

- **Number of Vanpool Stops to Pick-up Passengers** (Figure 8)
  - Nearly two thirds (64%) of the vanpools makes one stop at a central meeting place to pick up passengers in the morning. Three in ten (30%) of the vans make two stops and the remaining 6% make three or more stops.

Figure 8 – Pickup Stops (n = 405)



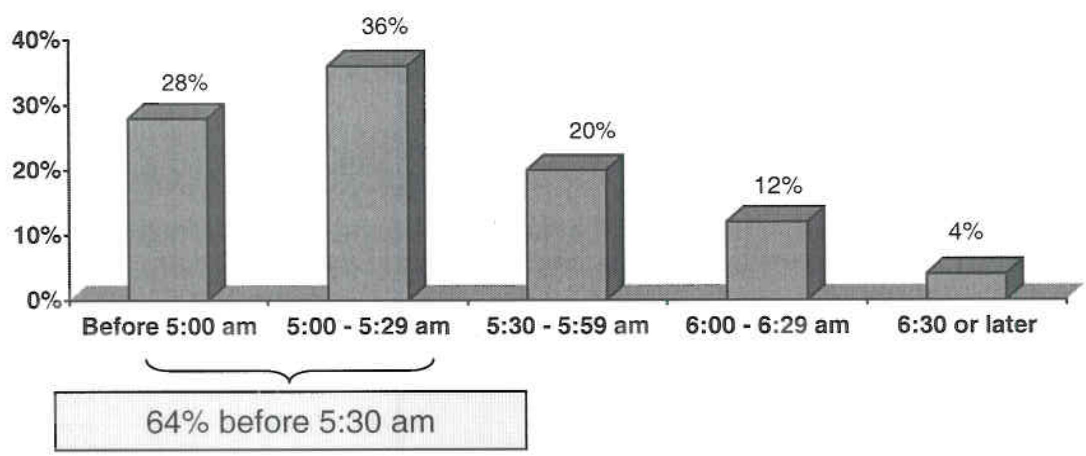
- **Timing of Vanpool Trip** – The survey asked detailed questions about the timing of the morning vanpool trip, including the time at which the driver leaves home to start the trip, the time the van leaves the last passenger pick-up stop, the time the van arrives at the first passenger drop-off stop, and finally, the time the van is parked for work.

  - The ranges of times respondents reported for these four vanpool activities are:

Vanpool Activity	Range of Time
• Vanpool drivers leave home:	3:15 am and 7:15 am
• Vanpool leaves the last pick-up stop:	4:05 am and 8:00 am
• Vanpool arrives at the first drop-off stop:	3:45 am and 9:15 am
• Van is parked for work:	3:50 am and 9:35 am

  - **Time Driver Leaves Home** (Figure 9) – Nearly two-thirds (64%) of the vanpool drivers leave their homes before 5:30 am to start the vanpool trip. And another third (32%) start their trip between 5:30 am and 6:29 am.

Figure 9 – Time Driver Leaves Home (n = 392)

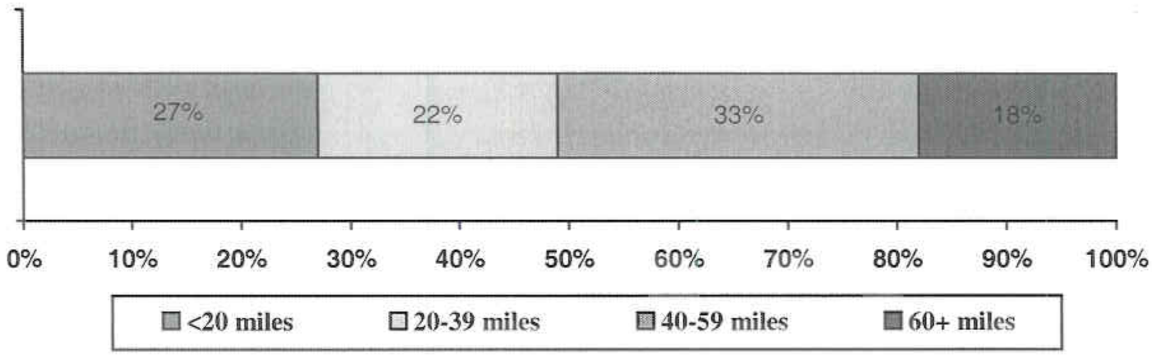


- **Travel Distance** (Figure 10)

  - The survey asked the vanpool drivers how many miles they traveled for the total trip and for the portion of the trip between the last pick-up and first-drop off stops (line-haul portion).

- Drivers traveled an average of 38 miles from their homes to their work location and the average distance from the last morning pick-up to the first drop-off location was 37 miles.

Figure 10 – Distribution of Distance from Drivers' Home to Work (n = 388)



- About a quarter (27%) of respondents traveled fewer than 20 miles from home to work and 22% traveled between 20 and 39 miles. A third traveled between 40 and 59 miles and nearly two in ten traveled more than 60 miles.

Vanpool Services

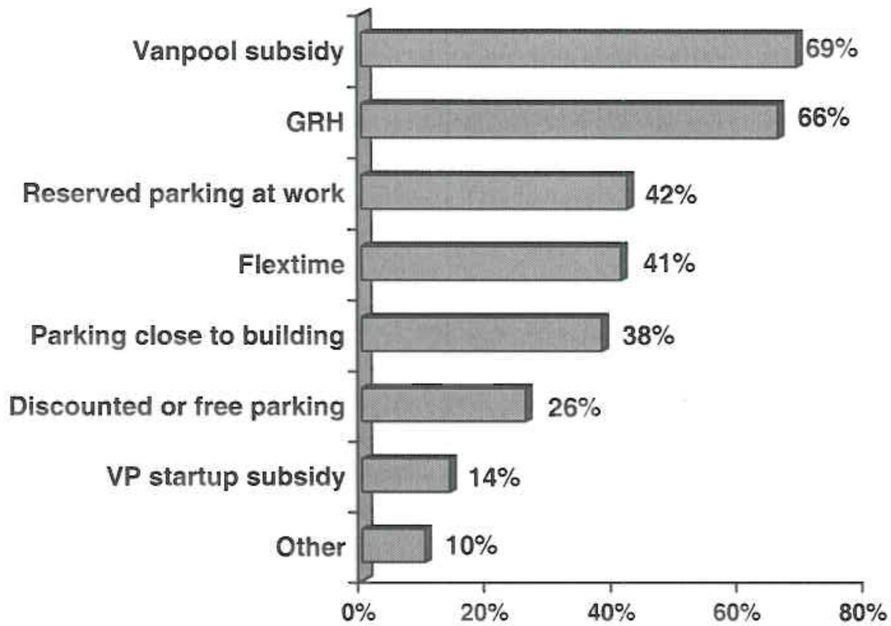
The third section of the survey asked respondents about vanpool assistance services and benefits they receive, either from their employer or another commute assistance group. Additionally, respondents were asked about use of HOV lanes and parking charges they pay at their worksite.

- **Use of HOV Lane**
  - Three-quarters (73%) of respondents said their vanpool uses an HOV lane during their trip to work.

- **Assistance Received When Forming Vanpool**
  - 54% of vanpool drivers said they did not receive any assistance in forming their vanpool or didn't know if they received assistance. Of the remaining respondents, 15% received assistance from their employer and 31% received assistance from another organization.

- **<u>Other Assistance Received from Employer or Commute Service Organization</u>** (Figure 11)
  - Vanpool drivers also were asked if they or the vanpool receive any assistance or benefits from their employers or another organization for vanpooling.

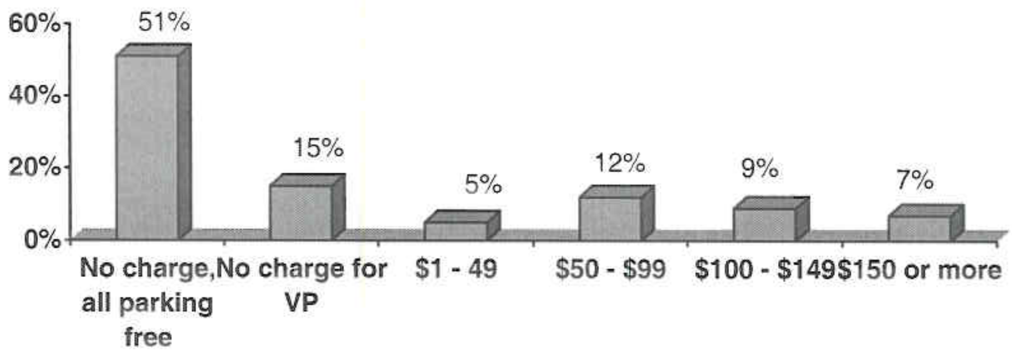
Figure 11 – Vanpool Assistance Received from Employer or Other Organization (n = 408)



  - 94% of vanpool drivers said they received at least one commute assistance service. The most common services were vanpool subsides, received by 69% and Guaranteed Ride Home, available to 66% of vanpools.
  - About four in ten said they had reserved parking at work (42%), flexible arrival and departure hours (41%), and parking close to the building (38%).
  - Smaller percentages said they received discounted or free parking (26%), a vanpool start-up subsidy (14%), or another service (10%).

- **<u>Monthly Parking Fee</u>** (Figure 12)
  - About two-thirds of the vanpool drivers pay no parking fee at work. About half (51%) said parking is free for all employees. An additional 15% of drivers said parking is free for vanpools.
  - The remaining respondents said they do pay a fee to park. About 17% said their parking fee is less than $100. The remaining 16% pay $100 or more.

Figure 12 – Monthly Parking Fee at Worksite (n = 388)



Other Vanpool Issues

The final section of the questionnaire asked drivers to rate their level of concern with various vanpool issues on a scale of one to five, with one equal to "no concern" and five equal to "great concern." The results of these questions are shown below and in Figure 13.

- Overall, the ratings, topping out at 3.4, suggest only modest concern for most issues. Only four of the issues had a rating of 2.9 or higher.

- The most pressing issue was "congestion in HOV lanes," which had an average rating of 3.4. It was cited as a great concern by 45% of respondents and as a concern by another 10%.

- Finding new riders (average rating of 3.2) was cited as a concern or great concern to 41% of drivers. Finding back-up drivers (2.9) also appeared to be of moderate concern.

- "New High Occupancy Toll (HOT) lanes along my route," (2.9), also was notable because 39% of drivers rated it a "great concern."

- Two other issues, "insurance cost too high" and "HOV lane hours too short", received average ratings of 2.4 In both cases, about 30% of drivers rated them of concern or great concern.

- All other issues received an average rating of 2.2 or lower, suggesting they did not present serious concern to most drivers.

Figure 13 – Potential Vanpool Issues (n = 330)