

Duration of Carpool and Vanpool Usage by Clients of RIDES

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The length of time commuters carpool or vanpool after being assisted by a ridesharing program is a critical factor in assessing the effectiveness of the program. In this study, the length of time individuals continued pooling after being assisted by the San Francisco Bay Area's ridesharing program RIDES was estimated. To measure the length of time carpool and vanpool groups lasted was not attempted. Some 47 percent of the respondents to a telephone survey were still ridesharing approximately 2½ years after being placed by RIDES. Substantially more of those originally placed into vanpools were still ridesharing (50 percent of vanpoolers compared with 28 percent of carpoolers). Projecting carpool and vanpool usage beyond the survey date was hampered by uncertainty in the data at a key point. The same group should be resurveyed at regular intervals in the future to further refine duration estimates. The major reason for discontinuing ridesharing was a change in commute situation. Because only 25 percent of the commuters that were no longer ridesharing as a result of their commute's changing called RIDES back for further assistance, more contact with commuters after they have been assisted might increase repeat usage of the ridesharing program.

The length of time commuters carpool or vanpool after being assisted by a ridesharing program is a critical factor in assessing the effectiveness of the program. Most ridesharing programs evaluate their effectiveness on the basis of a reduction in vehicle-miles traveled (VMT). Typically, estimates of VMT reduction for each commuter assisted into ridesharing arrangements are calculated from average trip distance, former mode, and the average length of time the commuter continues to rideshare or the pool group lasts.

In this study, the length of time individuals continued pooling after being assisted by the San Francisco Bay Area's ridesharing program of RIDES for Bay Area Commuters, Inc. (RIDES), was estimated. The length of time the carpool or vanpool groups lasted was not measured.

Data for this study were obtained through a telephone survey conducted in October 1985. Periodic surveys to determine a ridesharing organization's placement rate are normal procedure, but identifying and tracking individuals that have been assisted into pools are not. For this reason, the sample for this duration study was taken from an earlier survey (the 1983 database) that identified individuals who had been assisted with carpooling and vanpooling arrangements. The 1983 survey was multipurpose, asking a number of questions regarding commute characteristics, placement rate, and marketing variables. The sample for the 1983 survey was taken by selecting every fifth name in the database; 2,400 names were selected, of which 1,308 questionnaires were eventually completed.

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Commuters that responded affirmatively when asked if RIDES had helped them form, join, or expand a carpool or vanpool were selected as the target for the duration study. The target group consisted of 415 commuters whom RIDES had assisted into carpools and vanpools in 1983. Some 243 questionnaires representing about 2 percent of the original 1983 database were eventually completed.

The duration estimates were obtained by analyzing the responses to three questions. (a) Carpoolers were asked if they were still carpooling regularly and vanpoolers if they were still vanpooling regularly. (b) If the answer to the first question was no, the commuters were asked if they could remember how long they remained in a carpool or vanpool. (c) Because the study attempted to measure how long individuals remain pooling, their current commute mode was ascertained. If the respondent answered negatively to the first question but indicated that the respondent was currently in a carpool or vanpool, the respondent was included as part of the group that was still pooling.

MEASUREMENTS OF POOLING DURATION

Separate duration estimates were developed for commuters who were assisted into carpools and for commuters who were assisted into vanpools. Some 140 respondents were placed into carpools and 103 into vanpools. The carpoolers were asked if they were still carpooling regularly and the vanpoolers were asked if they were still vanpooling regularly. A total of 91 respondents were still commuting by the same mode (i.e., if they were originally commuting in a carpool, they were still in a carpool; and if they were originally commuting in a vanpool, they were still in a vanpool).

If the carpoolers or vanpoolers were no longer commuting by the same mode, they were subsequently asked how they were currently commuting. A total of 142 (58 percent) respondents were still commuting by a ridesharing mode (Table 1). Some 30 (12 percent) of the respondents had switched ridesharing modes—11 (11 percent) of the vanpoolers were currently commuting by carpool, and 19 (14 percent) of the carpoolers were currently commuting by vanpool. Substantially more of those originally placed into vanpools were still ridesharing (50 percent of the vanpoolers compared with 28 percent of the carpoolers).

Figure 1 shows that after 2½ years (30 months), 7 out of every 10 vanpoolers and 5 out of every 10 carpoolers were still ridesharing. Some 50 percent of those originally placed into carpools were still ridesharing 30 months later, and approximately 70 percent of the vanpoolers were still ridesharing at 30 months.

TABLE 1 LATEST COMMUTE MODE FOR CARPOOLERS AND VANPOOLERS

Latest Commute Mode	Carpoolers	Vanpoolers	Total
Commuting by same mode	50	62	112
Commuting by different ridesharing mode	19	11	30
Total still commuting by ridesharing	69	73	142

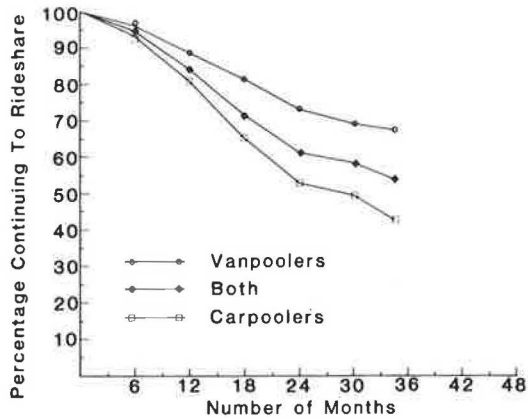


FIGURE 1 Duration curves for RIDES carpoolers and vanpoolers.

PROJECTING CARPOOL AND VANPOOL USAGE BEYOND THE SURVEY DATE

The curves in Figure 1 appear to level off at between 25 and 30 months. The vanpooler curve continues at this more level slope through 34 months, whereas the carpooler curve resumes a steeper slope between 30 and 34 months. Projecting the curves at these slopes could provide an estimate of the average duration of carpooler and vanpooler placements. Unfortunately, there is some ambiguity, within a 6-month margin, as to the exact date when commuters originally were assisted into a carpool or vanpool (Figure 2). Commuters who were part of the 1983 database survey were drawn from a sample that covered a 6-month range (i.e., they actually began carpooling or vanpooling between January and June of 1982).

Consequently, the maximum length of time commuters that were still ridesharing at the time of the 1986 duration survey could have been ridesharing varied by 6 months. This makes a great deal of difference as to how the curves are projected into

the future. Projecting the curve from the beginning of the grey (29 months) or the end (34 months) dramatically changes the slope.

SAME POOL OR DIFFERENT POOL

Of the 91 commuters who indicated they were still commuting by carpool or vanpool, 47 (52 percent) were in the same carpool or vanpool and 44 (48 percent) indicated they were in a different carpool or vanpool. Intuitively, one would expect vanpoolers by virtue of the presumed greater stability of a vanpool to be less likely to switch pools. Yet there is virtually no difference in the tendency to switch pools between carpoolers and vanpoolers—50 percent of the carpoolers were in the same carpool and 54 percent of the vanpoolers were in the same vanpool (Table 2).

TABLE 2 SWITCHING POOLS AND CALLING FOR FURTHER ASSISTANCE

Commuter Type	Same Pool	Different Pool
Carpoolers	26	26
Vanpoolers	21	18
Called for further assistance	17	17
Did not call for further assistance	29	26

It might also be expected that a greater percentage of those commuters who were no longer in the same pool but had switched to a different pool to have called RIDES back for further assistance. Data from this study show virtually no relationship—38 percent of those who were in the same pool and 36 percent of those who had switched pools called back for further assistance.

COMPARISON OF FORMER AND CURRENT COMMUTE MODES

The data in Table 3 show the percentage of drive-alone commuters in October 1985 edging back toward the former mode level of 46 percent. As would be expected, the percentage of respondents carpooling and vanpooling has dropped from the 100 percent level at the time of the 1983 database survey, but is still substantially higher (52 percent compared with 23 percent) than the former modes reported in 1983.

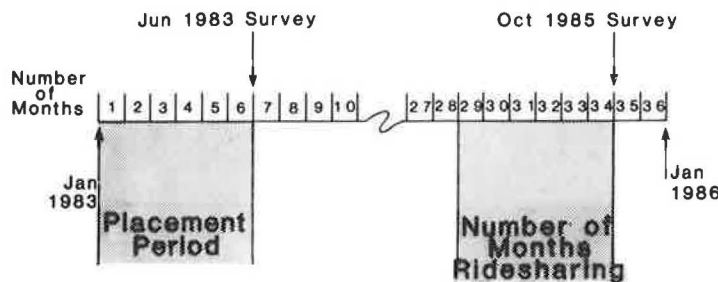


FIGURE 2 Range of months for respondents still ridesharing.

TABLE 3 CHANGE IN COMMUTE MODE

Commute mode	Fraction as of October 1985 (%)	Fraction as of 1983 Survey (%)	Fraction of 1983 Survey Respondents (%)
Drive alone	37	0	46
Carpool or vanpool	52	100	23
Bus	4	0	14
Bay Area Rapid Transit	4	0	17

The decrease in bus and rapid transit use between the former mode and the 1985 level is roughly equivalent to the increase in ridesharing. However, it is unlikely that the former transit patrons have simply switched to ridesharing and that former drive-alone commuters have returned to driving alone. Results of the 1983 database survey showed that 12 percent of the former transit users switched to driving alone. Future studies should be designed to track commuters by their prior mode in order to better understand these changes. The information was not available to do so with this study.

WHY COMMUTERS WERE NO LONGER RIDESHARING

The data in Table 4 show the reasons given by respondents for no longer carpooling or vanpooling. Changes in their commute or their pooling partners' commute accounted for the largest percentage (47 percent). The reasons given for no longer pooling were cross-tabulated with responses indicating whether they had called RIDES back for further assistance. The results were again surprising. One might expect commuters whose commute had changed and who had been successful in using the RIDES program previously to be very likely to call back. This was not the case—only 25 percent called back. Some 26 percent of all others called back.

The fact that relatively few former RIDES clients requested further assistance indicates a large potential market for ridesharing services. Marketing efforts targeted at this group may prove highly successful. A marketing campaign conducted in early 1986 at RIDES further supports this point. Direct mail letters and reply cards were sent to approximately 25,000 former clients; approximately 2,600 responses were received (i.e., over 10 percent). For most direct mail marketing campaigns a 1 or 2 percent response is considered good—a 10 percent response is exceptional.

FINDINGS AND RECOMMENDATIONS FOR FUTURE STUDY

- Commuters assisted into vanpools will remain ridesharing longer than commuters assisted into carpools. In practical

TABLE 4 REASONS POOLERS WERE NO LONGER RIDESHARING

Reason	No.	Percentage
Hours no longer compatible with other poolers	24	16
Commute changed because of home or work situation changing	70	47
Personal differences among poolers	6	4
Traffic too congested to drive at all	2	1
Lack of others to pool with	11	7
No one wanted to drive	4	3
Other	32	22

terms, assisting two commuters into vanpools is roughly equivalent to assisting three commuters into carpools.

- Estimating the average length of time a commuter will stay in a carpool or vanpool was hampered by uncertainty in the data at a key point. Further research is needed to accurately estimate average duration.

- Because only 25 percent of the commuters that were no longer ridesharing as a result of their commute's changing called RIDES back for further assistance, more contact with commuters after they have been assisted might increase repeat usage of the ridesharing program.

- The same group should be surveyed again at regular intervals in order to further refine duration estimates. In order to avoid grey areas in future duration studies, general-purpose surveys that ask commuters if a ridesharing agency had successfully assisted them should attempt to pinpoint the actual date when the client began ridesharing.

Several peculiarities in the data are worthy of noting for future studies.

- Although the sample group was selected from individuals who indicated that RIDES had assisted them into a carpool or vanpool in 1983, 21 respondents to the 1985 questionnaire indicated that they had never gotten into a carpool or vanpool. This group was eliminated from the analysis.

- Because the 1983 survey sample included both new and update applicants, it was possible for some respondents to no longer be in a carpool or vanpool but to have remained pooling longer than the maximum 34 months (see Figure 2). For purposes of this study, these respondents were considered to be still pooling at the 34-month point.

- Some bias may have been introduced into the sample due to the fact that commuters who could not be reached might be considered less stable (i.e., more likely to have changed home or work location and disturbed their commute pattern) and therefore less likely to still be ridesharing. No adjustments were made to the data to account for these potential effects.