

## **Casual Carpooling 1998 Update** (January, 1999)

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This report does not constitute a standard, specification or regulation.*

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**CASUAL CARPOOL  
LOADING/UNLOADING  
PASSENGER LINE  
FORMS HERE**

*sign at Del Norte pick-up location*

## INTRODUCTION:

### ***What is Casual Carpooling?***

Casual carpooling continues to thrive between the East Bay and San Francisco. Casual carpooling is a flexible approach to commuting where drivers offer rides to passengers previously not known to them to qualify for use of the high occupancy vehicle (HOV) lanes. Casual carpools form at numerous East Bay sites in Alameda, Contra Costa and Solano Counties. These pick-up locations are all located near transit routes that provide parallel service. For the most part, casual carpooling is a one-way phenomenon providing passengers a free ride to San Francisco in the morning; BART and AC Transit provide the ride home in the evening for most passengers.

Casual carpooling exists out of its own momentum. It was not created by a public or private transportation entity. Its exact origin is unknown, but the most plausible theory is that it started in the 1970s either during an AC Transit service disruption or as a result of the energy crisis. Casual carpooling works because:

- the HOV facilities provide a time and money saving incentive for drivers;
- pick-up locations offer easy access to both drivers and riders;
- the employment density of San Francisco is large enough to attract a “critical mass” of participants;
- good public transit service is available for passengers to make the return trip.

### ***About This Study***

RIDES last examined the casual carpooling phenomenon in 1992. RIDES conducted earlier studies in 1989, 1987 and 1985. Although casual carpooling does not require any significant public support to function, understanding how it operates and how it impacts other transportation modes is important. Specifically, this study is designed to examine: (1) What makes casual carpooling work and is it possible to replicate the casual carpooling system in other areas? (2) Can a better understanding of commuter behavior and the dynamics of mode choice among casual carpoolers be used to improve transit and formal carpool operations? (3) Should planners and policy makers encourage or discourage its development?

The timing of this study is interesting because a number of changes have occurred in the last couple of years that impact casual carpoolers:

- new HOV lanes on Interstate 80 opened in both directions from near the toll plaza to Highway 4 in Pinole;
- the Bay Bridge toll increased from \$1 to \$2;
- two-seater vehicles with two passengers are eligible to use the HOV facilities on Interstate 80 and at the toll plaza;
- BART service was stopped completely for eight days in September, 1997 by a labor dispute;
- BART fares have increased 45%;
- to facilitate evening casual carpools, a loading zone was created on Beale Street in San Francisco;
- the Environmental Defense Fund added a casual carpooling page to its web site.

### **Methodology**

The scope of the fieldwork for the 1998 study is somewhat more extensive than the fieldwork done for earlier studies. It included counts at thirteen locations (twelve East Bay and one San Francisco) and the distribution of mail-back questionnaires at eight locations. The most extensive of the past studies counted nine locations (1989) and distributed questionnaires at six locations (1987). The broader scope of the research is a response to casual carpooling expanding geographically.

The counts were done between 6:00am and 9:00am Monday through Friday. Some pools form before and after those hours. The purpose of the counts, however, is to compare with previous year's counts done during that same three-hour period. Carpools were counted in fifteen-minute groups; the complete counts are in Appendix 3.

Questionnaires were distributed to passengers with a brief explanation of the study's purpose and a request to pass one to the driver of the carpool. The overall response rate was 31% (2,350 questionnaires distributed and 725 returned). The response rates for most sites were near the average. The Orinda site had a particularly low response rate of only 4%. The questionnaire included questions on: frequency of casual carpool use; length of time casual carpooling; reasons for casual carpooling; distance and mode used to reach pick-up locations; mode used for evening return trip; mode used before starting to casual carpool and how participants would travel if casual carpooling were not an option. The questionnaire with responses is included as Appendix 1.

All respondents to the study are classified as drivers, passengers or combination participants (i.e., sometimes they drive and sometimes they are passengers). About two-thirds of respondents were normally passengers (table 1). Much of the analysis that follows focuses on the characteristics of the driver and passenger groups separately because their motivations and commute patterns are distinct from each other.

Table 1  
**Driver or Passenger**

Normally Driver	22%
Normally Passenger	67%
Combination	11%

**NUMBER OF CASUAL CARPOOLERS:****Casual Carpool Pick-up Locations**

Because of the spontaneous nature of casual carpools, they are formed anywhere drivers and passengers meet. Some are well-established, high-volume locations; others are inconspicuous bus stops where only one or two carpools form.<sup>1</sup> Thirteen of the high-volume locations were counted as part of this study (table 2). These counts provide information on the volume of carpools formed at individual locations and, when compared with earlier counts, the opportunity to monitor changes over time. Casual carpool locations are also shown in figure 1.

Table 2  
Number of Carpools Formed by Location

	1998	1992	1989	1987	1986	1985
<i>Oakland</i>						
College and Claremont	152	131	202	262	212	222
Fruitvale and Montana	94	124	154			
Lakeshore and Grand	261	251	284	325	302	304
Claremont and Hudson	165	85	118			
Park and Hollywood	143					
<i>Orinda</i>						
Orinda BART	155	227	332	271		
<i>Lafayette</i>						
Lafayette BART	87		116	141		
<i>Berkeley</i>						
North Berkeley BART	279	305	246			
<i>El Cerrito</i>						
Del Norte BART	314	364	150			
Pierce Street	141	82	169	168	119	
<i>Hercules</i>						
Hercules Park and Ride	156					
<i>Vallejo</i>						
Curtola Park and Ride	170					
<i>San Francisco</i>						
Beale St Loading Zone	187					

<sup>1</sup> The Environmental Defense Fund has added a page to its web site that describes how casual carpooling works and lists all the known high volume sites ([www.edf.org/programs/transportation/carpoolnews.html](http://www.edf.org/programs/transportation/carpoolnews.html)); the web page includes a map of each location. The site currently lists 20 locations.

**How Many Casual Carpoolers Are There?**

Because casual carpools originate from numerous locations, look identical to formal carpools once they're on the road and involve no formal record keeping, counting them is difficult. In RIDES' 1989 study of casual carpooling, several approaches were used to estimate the total number of casual carpools. At that time, we estimated there were about 8,000 individuals casual carpooling daily.

The number of carpools formed at individual pick-up locations has declined over time. At the nine locations counted in 1989, the average number of carpools formed was 196 per site. At the twelve East Bay locations counted in 1998, the average number of carpools formed per location was 176. Although the number of pools formed per location has declined, the number of locations has increased. The overall effect is likely one of little change in the total number of participants. We know there are more than 6,351 participants (i.e., 2,117 carpools counted times 3 participants per car). Although carpools form before and after 6:00am to 9:00am, we did not count them. We also did not count all the higher volume sites (listed on the Environmental Defense Fund web page), or any of the low-volume sites. Considering the number of carpoolers counted and the known undercounting, the data suggest there are still at least 8,000 participants daily and perhaps more.

## SURVEY RESULTS:

### **Frequency of Use**

Casual carpooling appears to be a reliable mode of transportation. Most respondents participate in casual carpools every day (table 3). Frequency of use has remained steady since it was first asked in the 1985 survey. At that time, 83% of the respondents indicated that they casual carpool 4-5 days a week.

*Table 3*

Occasionally	4%
Once A Week	2%
2-3 Days A Week	10%
4-5 Days A Week	84%

### **Length of Time Casual Carpooling**

About a third of respondents had been casual carpooling less than a year; over half (57%) had been casual carpooling 2 years or less (table 4). Compared with earlier studies, both the percentage of new and the percentage of long-term casual carpoolers increased. In 1992, only 9% of respondents had been participating for less than a year (compared with 33% in 1998). At the other extreme, the percentage of respondents who indicated that they had been casual carpooling more than 10 years increased from 5% in 1992 to 15% in 1998.

Although the increase in both the percentages of short-term and long-term participants seems contradictory, there are plausible explanations. The increase in short-term participants is most likely due to the new HOV facility and other recent developments attracting new interest. The high percentage of new participants also points to the high visibility of the system. Other than the Environmental Defense Fund web page, there is no organized promotion of casual carpooling. Its visibility (queues of cars and/or passengers) and “word of mouth” are the main ways new participants discover the system. The increase in long-term users is likely the result of casual carpooling having been around longer.

*Table 4*

Less Than 1 Year	33%
1 – 2 Years	24%
3 – 5 Years	16%
6 – 9 Years	12%
10 Years or More	15%

### **Reasons For Casual Carpooling**

Respondents were asked to identify their main reason for casual carpooling. Although they were asked for the main reason, 39% gave at least two reasons and 23% indicated three or more reasons. Mode choice is not always a simple decision, and casual carpoolers like other commuters apparently make their choice based on a number of factors.

For drivers, saving time was the main motivating factor by a significant margin—almost six out of ten drivers indicated they casual carpoled to save time (table 5). Saving



money was the second most popular response. Compared with earlier surveys, more drivers indicated that saving time was the main reason they casual carpool (58% in 1998 vs. 38% in 1992). The percentage of drivers indicating that they casual carpool to save money also has increased over time (15% in 1998 vs. 10% in 1992). The increased bridge toll and increased transit fares are likely responsible.

Among passengers, saving money was the most common reason cited (table 5). Saving time was the second most common response. Compared with earlier surveys, passengers indicated less tolerance for crowded transit. In 1992, 2% casual carpooled because transit was too crowded, unreliable or infrequent. In 1998, that percentage increased to 8%.

Table 5  
Reasons For Casual Carpooling

	Passenger s	Drivers	Combinatio n
Save Time	23%	58%	28%
Save Money	36%	15%	26%
More Flexible Than Other Options	11%	8%	10%
More Pleasant Than Other Options	7%	2%	8%
Transit too Crowded/Unreliable/Infrequent	8%	5%	13%
Reduce Traffic Congestion	10%	8%	7%
Improve Air Quality	4%	2%	4%
Other	2%	2%	4%

#### **Distance to Pick-up Location**

Most casual carpoolers (85% or more) live within 5 miles of their pick-up location. Not surprisingly, drivers tend to go a somewhat longer distance than passengers do to reach pick-up locations (table 6). The distance that passengers travel to pick-up locations has varied little over time.

Drivers reported traveling shorter distances in 1998 than past surveys. The distance drivers are traveling to reach pick-up locations is decreasing over time (table 7). This may indicate that additional low-volume pick-up locations have developed that drivers are going to rather than traveling a longer distance to the high-volume locations. Because we have no data on low-volume pick-up locations this evidence is not conclusive, but if there are new sites it would influence counts and comparisons over time.

Table 6  
Distance From Home to Casual Carpool Pick-up Location

	Passengers	Drivers	Combinatio n
1 – 3 Blocks	16%	9%	17%
4 – 10 Blocks	28%	27%	27%
1 – 5 Miles	43%	49%	47%
More Than 5 Miles	14%	15%	9%

Table 7  
**Distance From Home to Casual Carpool Pick-up Location**

	Drivers 87	Drivers 92	Drivers 98
1 – 3 Blocks	5%	6%	9%
4 – 10 Blocks	26%	25%	27%
1 – 5 Miles	41%	52%	49%
More Than 5 Miles	28%	17%	15%

The distance participants travel to individual pick-up locations varies considerably: College/Claremont has the highest percentage of close-by participants with 31% living within 1-3 blocks; Vallejo has the lowest with only 1% within 1-3 blocks. College/Claremont also has the highest percentage within 4-10 blocks (43%) and Vallejo again has the lowest percentage at that distance (13%). The trend reverses itself at the 1-5 mile range where Vallejo has the highest percentage (63%) and College/Claremont the lowest (21%). The highest percentage of participants traveling over 5 miles to a pick-up location was at Del Norte BART (27%); North Berkeley BART had the smallest percentage (4%) traveling 5 miles or more.

### Access Mode

Driving alone and walking are the dominant modes passengers use to reach their casual carpool pick-up locations (table 8). The percentage of commuters driving alone and parking has increased from 29% in 1987 to 41% in 1998 for the sample as a whole. This is partially accounted for by the different sites surveyed in 1998. If we examine only the sites surveyed in 1987, the change becomes smaller. The drive alone rate still increases but only to 35%. A drop in “BART” rate (-3%) and a drop in “carpool and park” rate (-2%) account for the difference between the 1987 and 1998 numbers from the same sites. The “walk” rate is unchanged between 1987 and 1998 when comparing the same sites.

Table 8  
**Passengers Mode to Casual Carpool Location**

	1987	1992	1998
Drive Alone and Park	29%	31%	41%
Walk	42%	39%	32%
Dropped Off	13%	11%	15%
Bicycle	1%	1%	3%
BART	5%	10%	2%
Carpool and Park	1%	3%	3%
Bus	4%	4%	4%
Other	na	na	1%

The access mode varies significantly from site to site. At the more urban sites—where residential densities are greater and parking is limited—a greater percentage of commuters walk to the pick-up locations (table 9). The opposite is true in the more suburban locations where a greater percentage of commuters need a car to reach the pick-up locations. Driving varies from a low of 17% at College/Claremont to a high of 61% at the Curtola Park and Ride lot in Vallejo.

Table 9  
Access Mode by Location

	Drive Alone	Walk	Dropped Off	Other
College/Claremont	17%	68%	6%	9%
Lakeshore/Grand	18%	57%	15%	10%
North Berkeley BART	38%	34%	15%	13%
Lafayette BART	39%	25%	21%	15%
Del Norte BART	45%	14%	25%	16%
Orinda BART	50%	17%	17%	16%
Pierce Street	58%	27%	8%	7%
Curtola Park and Ride	61%	3%	19%	17%

### Evening Mode

Until the BART strike in September of 1997, casual carpooling was exclusively a one-way trip from the East Bay to San Francisco. At that time, the City of San Francisco created a loading zone on Beale Street between Howard and Folsom. The site provides direct access to the Sterling Street HOV on-ramp to the Bay Bridge. Signs at the loading zone identify a selection of East Bay destinations. The Environmental Defense Fund promoted the site and it appears to be catching on. The count done as part of this study on November 2<sup>nd</sup> observed 187 carpools forming there; a count done on August 27<sup>th</sup>—just a little more than two months earlier—by the City of San Francisco observed 109 carpools forming there.

While creating the loading zone was an important first step, the other obstacle to overcome in order for the return trip system to work was creating a viable incentive for drivers. The Sterling Street HOV on-ramp has existed for a long time but it offers limited timesaving. The Interstate 80 HOV lane, on the other hand, offers significant timesaving and, based on the number of carpools forming to the Vallejo and Hercules destinations (table 10), it appears to provide sufficient incentive to motivate drivers. Together the Vallejo and Hercules destinations account for over 80% of the evening casual carpool trips.

Table 10  
Beale Street Loading Zone Counts

Destination	August 27 <sup>th</sup>	November 2 <sup>nd</sup>
Vallejo	55	107
Hercules	26	45
Orinda/Lafayette	11	8
Claremont/College	12	13
Lakeshore/Grand	4	10
Berkeley	0	4
Point Richmond	1	0
<b>Total</b>	<b>109</b>	<b>187</b>

Despite the creation of the Beale Street loading zone, casual carpooling is still a one-way trip for most participants. According to survey results, only 9% of all casual carpoolers normally make the evening trip via casual carpool. The main modes used for the return trip are BART and AC Transit for passengers, and driving alone for drivers.

Most drivers (73%) currently make the return trip in their car alone (table 11); some (23%) make the return trip as part of a formal or casual carpool. In 1992, 82% of drivers drove home alone, 11% drove with one other. In 1987, 83% of drivers drove home alone, 9% drove with one other. BART and AC Transit currently carry the majority of casual carpool passengers home—a total of 84%. In 1992, 94% of passengers took public transit home and 2% drove with one other. In 1987, 93% of passengers took public transit home and 3% drove with one other.

Table 11  
Mode Used To Get Home

	Passengers	Drivers	Combination
Drive Alone	2%	73%	17%
Drive With One Other	2%	16%	6%
BART	46%	3%	28%
AC Transit	38%	0%	30%
Formal Carpool (3+)	1%	1%	4%
Casual Carpool	9%	7%	13%
Other	3%	1%	1%

Respondents were asked if they had carpooled home from the Beale Street loading zone in San Francisco (table 12). Nineteen percent (19%) of casual carpoolers had tried casual carpooling for the return trip at some time and been successful. Sixty-six percent had either not tried it or were not aware of it.

Table 12  
Casual Carpooling Home

Yes	19%
Tried But Couldn't Get Ride	11%
Tried But Couldn't Get Passengers	2%
No	55%
Not Aware of Option	11%
Other	3%

#### **Alternative Commute Modes for Drivers and Passengers**

Over half (54%) of the drivers who responded to the survey indicated that they would continue to drive everyday even if they could not pick-up passengers; another 22% indicated that they would continue to drive occasionally if they could not pick-up passengers (table 13). On the other hand, most passengers (almost 89%) would use public transit for their trip to work or school if they couldn't casual carpool (table 14).

Table 13  
Likelihood of Driving If Drivers Couldn't Pick-up Passengers

Everyday	54%
Occasionally	22%
Rarely	17%
Don't Know	7%

Table 14

**Mode If Passengers Couldn't Casual Carpool**

Drive Alone	5%
Formal Carpool	4%
AC Transit	32%
BART	55%
Ferry	2%
Other	1%

**Traffic Impact Based On Alternative Mode Choice**

It is a common sense perception that adding passengers to cars reduces the number of cars on the road. However, the data gathered here lead us toward a different conclusion in the case of casual carpools. Based on the information in tables 13 and 14, it is possible to make some assumptions about the impact on traffic if casual carpooling did not exist. Drivers who indicated they would no longer drive will remove cars from the road and passengers who indicated that they would start driving would add cars to the road. The difference between these two numbers provides an estimate of the impact of casual carpooling on traffic.

Looking at the drivers first, we can assume that those who told us they would rarely drive; plus some of those who said they would drive only “occasionally”; plus some of those who said they “don’t know” would actually stop driving if they could not casual carpool. In this simple model, we assume that half of those who told us they would drive “occasionally” and half of those who said they “don’t know” would stop driving. This gives us a total of 31.5% of drivers who indicated that they would no longer drive if they couldn’t pick-up passengers.

$$\begin{aligned} & \text{("Rarely")} + \text{(half of "Occasionally")} + \text{(half of "Don't Know")} = \text{Drivers who would stop driving} \\ & \text{or} \\ & (17\%) + (\_ \text{ of } 22\%) + (\_ \text{ of } 7\%) = 31.5\% \end{aligned}$$

Looking next at passengers, 5% indicated that they would start driving if they could no longer participate in a casual carpool. These would be cars added to the road.

The minimum estimate of casual carpools, based on the actual number counted at the twelve East Bay locations, is 2,117. With three persons per carpool, this translates into 2,117 drivers and 4,234 passengers. Using the estimates developed above, 31.5% of 2,117 drivers would stop driving and (5%) of 4,234 passengers would start driving. The difference, as shown below, is 455 fewer cars on the road if casual carpooling were not an option.

$$(31.5\% \text{ of } 2,117 = 667 \text{ cars removed}) + (5\% \text{ of } 4,234 = 212 \text{ cars added}) = -455 \text{ cars}$$

If the real number of casual carpools is closer to 3,000 (near the upper end of our estimate), the difference is even greater—645 fewer cars on the road if casual carpooling were not an option.

$$(31.5\% \text{ of } 3,000 = 945 \text{ cars removed}) + (5\% \text{ of } 6,000 = 300 \text{ cars added}) = -645 \text{ cars}$$

**Prior Commute Mode**

Most passengers were public transit users before they began casual carpooling (table 15). About 9% of passengers drove alone before they began casual carpooling. Forty-seven percent (47%) of casual carpool drivers drove alone or with one other person before casual carpooling.

Table 15  
**Prior Commute Mode**

	Passengers	Drivers	Combination
Drove Alone	9%	40%	20%
Drove With One Other	3%	7%	3%
BART	52%	25%	37%
AC Transit	22%	8%	13%
Formal Carpool (3+)	2%	3%	2%
Always Casual Carpooled	3%	5%	3%
Lived Elsewhere	6%	8%	12%
Other	4%	4%	9%

**Traffic Impact Based On Prior Mode**

Using the prior mode data, a model similar to the one above can be constructed to estimate the impact of casual carpooling on traffic. The underlying assumption for this estimate is that casual carpool participants would return to their prior mode if casual carpooling were not an option. In other words, 33% of drivers would return to transit and 9% of passengers would drive alone.

$$(33\% \text{ of } 2,117 = 698 \text{ cars removed}) + (9\% \text{ of } 4,234 = 381 \text{ cars added}) = -317 \text{ cars}$$

or

$$(33\% \text{ of } 3,300 = 1089 \text{ cars removed}) + (9\% \text{ of } 6,600 = 594 \text{ cars added}) = -495 \text{ cars}$$

The results are similar although a little smaller than the earlier estimate—if casual carpooling did not exist there would be fewer cars on the road.

## CONCLUSIONS:

### ***Impact of Changes***

The HOV lane on Interstate 80 has clearly had an impact on casual carpooling. It spawned new high-volume pick-up locations much farther up the corridor than existed before (i.e., Hercules and Vallejo). More drivers indicated that time was the main reason they casual carpooled compared with earlier studies. The new HOV lane is what provides the timesaving for drivers. The toll increase also appears to have enticed drivers to casual carpool. In the 1998 survey, a higher percentage of drivers indicated that saving money was the main reason they casual carpool.

The BART strike and the creation of the loading zone in San Francisco have jump-started eastbound casual carpooling. It now works in both directions (for some participants). Based on the counts done there in August and November, casual carpooling home appears to be increasing in popularity. The full length of the Interstate 80 eastbound HOV lane has only opened recently so it may take some time to catch on. Its popularity will depend on how significant an incentive it provides to drivers. Passengers also expressed low tolerance for crowded transit service—this may be part of a lasting dissatisfaction with BART since the strike.

### ***Number of Casual Carpoolers***

Although casual carpooling has evolved in the last five years, the number of participants does not appear to have changed dramatically. The counts at individual high-volume locations were lower than previous years, but the number of high-volume locations has increased. There is evidence (i.e., drivers traveling shorter distances to reach pick-up locations) that some drivers shifted from further-away high volume sites to closer low-volume sites. Consequently, our estimate of the total number of casual carpoolers is in the range of 8,000 to 10,000.

### ***Answers to Initial Questions***

The three questions posed at the beginning of this study also provide some perspective from which to view some concluding thoughts.

- (1) *What makes casual carpooling work and is it possible to replicate casual carpooling in other areas?*

The system works primarily because of the timesaving incentive provided to drivers by the HOV facilities. In order to replicate this type of system elsewhere, the key is providing an incentive to attract drivers. The other attributes (accessible pick-up locations, large employment cluster and parallel transit service) that make the current casual carpooling system work are important but an incentive that attracts drivers is critical.

- (2) *Can a better understanding of commuter behavior and the dynamics of mode choice among casual carpoolers be used to improve transit and formal carpool operations?*

HOV facilities work. Six of ten drivers cite timesaving as the main reason they casual carpool. Money has increased in importance since the last survey. The toll increase and BART fare increases are most likely responsible for the increased importance of money. In addition to saving time and money, flexibility was identified as one of the main reasons respondents casual carpool. Commuters have roughly a three-hour window in which they can casual carpool; drivers have the option to drive alone and riders have the

option to take transit if they change their mind at the last minute. Lack of flexibility is frequently cited as a deterrent by solo drivers to joining carpool. Formal carpools are more of a commitment than one-day, one-way casual arrangements. Changing the image of formal carpools to one of greater flexibility and less commitment might encourage more participation.

Casual carpooling continues to attract new participants and it does so without an organized promotional effort. The high percentage of new participants (33% of respondents have been participating for less than one year) is attributable to the new HOV lane, the Environmental Defense Fund web page, and the high visibility of casual carpooling. Formal carpools are not very visible. Making carpools and vanpools more visible might create an effective promotional tool. Even transit, with its often-cryptic destination signs and difficult to decipher schedules, could benefit from increased visibility.

*(3) Should planners and policy makers encourage or discourage its development?*

About a third of drivers indicated that they would no longer drive and five percent of passengers indicated that they would start driving if casual carpooling were not an option. This simple analysis indicates that casual carpooling is most likely adding cars to the road. From this perspective, encouraging casual carpooling does little to improve congestion or air quality.

However, there may be other benefits of casual carpooling that are not evident from this study. For example, there may be some positive benefits on transit. Some transit lines are overburdened\_ especially some BART lines. Casual carpoolers who have switched from transit may actually be freeing-up space that encourages others to use transit. Reducing demand on bus service in the casual carpool corridor could, theoretically, allow operators to increase service in other areas; although, to our knowledge, this has not happened.

Even if discouraging casual carpooling were clearly justified, it would be difficult to do. It is relatively impervious to outside influences since it does not require special infrastructure, vehicles or labor force. But perhaps more importantly it provides another option for commuters navigating a system dominated by solo drivers and the facilities (parking and highways) that support driving alone. It introduces commuters to carpooling and perhaps some also go on to formal carpool arrangements.



## Appendix 1--CASUAL CARPOOLING SURVEY

This survey is being conducted by **RIDES for Bay Area Commuters**. We are a nonprofit organization that promotes ridesharing in the Bay Area. The results of this survey will be used to further our efforts to relieve traffic congestion and improve air quality. Please complete the questions below and use the pre-paid mailer to return the survey. Thank you.

**1. How often do you commute by casual carpool?**

occasionally (4%)  once a week (2%)  2-3 days a week (10%)  4-5 days a week (84%)

**2. Are you normally a driver or passenger?**

normally I drive (22%)  normally I'm a passenger (67%)  a little of both (11%)

**3. How long have you been casual carpooling?**

less than 1 year (33%)  1 - 2 years (24%)  3 - 5 years (16%)  
 6 - 9 years (12%)  10 years + (15%)

**4. How did you normally commute to work/school before you started casual carpooling?**

drove alone (17%)  drove with one other person (4%)  BART (45%)  
 AC Transit (18%)  formal carpool (3+ people) (2%)  always casual  
 carpooled (4%)  lived someplace else (7%)  other: (4%)

**5. What is the main reason you casual carpool?**

save time (31%)  more flexible than other options (10%)  reduce traffic congestion (9%)  
 save money (31%)  more pleasant than other options (6%)  improve air quality (4%)  
 transit too crowded/unreliable/infrequent (8%)  other:  
 (3%) \_\_\_\_\_

**6. How do you normally get home?**

drive alone (18%)  drive with one other person (5%)  BART (45%)  
 AC Transit (18%)  formal carpool (3+ people) (2%)  casual carpool (9%)  
 other: (2%) \_\_\_\_\_

**7. Have you casual carpooled home from the Beale Street loading zone in San Francisco?**

yes (19%)  tried but couldn't get a ride (11%)  tried but couldn't get passengers (2%)  
 no (55%)  not aware that there was a way to casual carpool home (11%)  
 other: (3%) \_\_\_\_\_

**8. How far is it from your home to the location where you meet your casual carpool?**

1-3 blocks (14%)  4-10 blocks (28%)  1-5 miles (45%)  more than 5 miles (13%)

**9. How do you get to your casual carpool pick-up spot? [passengers only]**

drive alone and park (41%)  walk (32%)  dropped off (15%)  bicycle (3%)  
 BART (2%)  carpool and park (3%)  bus (4%)  other (1%)

**10. If you normally drive, would you do so even if you could not pick up passengers?**

everyday (54%)  occasionally (22%)  rarely (17%)  don't know (7%)

**11. If you are a passenger, how would you get to work/school if you couldn't casual carpool?**

drive alone (5%)  formal carpool (4%)  AC Transit (32%)  BART (55%)  
 Ferry (2%)  other: (1%) \_\_\_\_\_

**12. What is your home zip code? \_\_\_\_\_ work zip code? \_\_\_\_\_**

*Thank you for completing the questionnaire. Suggestions for improving commute options can be made on back. (v)*

## Appendix 2—Respondent's Comments

Respondents were asked to provide suggestions for improving commute options. Their comments are listed below. Although their suggestions cover a broad range of topics, similar comments were provided by a number of respondents on three topics. (1) Respondents want more HOV lanes. A number of respondents suggested that carpool lanes be added to the bridge and that the I-80 eastbound lane be extended to at least Emeryville. (At the time of the survey, it was only open from Gilman Street in Berkeley eastward.) HOV lanes on Highway 24 and I-580 were also suggested many times. (2) Numerous respondents suggested that more parking is needed near the casual carpool pick-up locations. This sentiment was particularly strong at the Pierce Street location where the main parking area was about to be closed. (3) The Beale Street loading zone was mentioned again and again. Respondents indicated concern for safety, driver incentives, additional destinations and additional promotion.

### Lakeshore/Grand

Since 880 opened, all my rides have been going out of their way to get on 880's carpool lane (580 to 980 to 7<sup>th</sup> street to 880). We need a 580 carpool lane!!!

Carpool lane on bridge both directions!

Have an eastbound carpool lane on bridge to encourage Beale St carpools.

How about more advertising for the Beale St pick up?

How about maps of casual carpool pick up spots and carpool lanes to the bridge?

I love the carpool.

Promote and explain how Beale St works. Everyone says "they don't know how to do it" or "it doesn't work well."

I wish there were ferry service from Jack London to Fort Mason.

### North Berkeley

It would be great if there was a commuter lane on both levels of the Bay Bridge. There isn't very much incentive to pick up commuters on Beale St. If there was more incentive I think more people would use it.

The loading zone [Beale St] appears to be an unsafe spot . . . especially now that it's getting darker earlier. There are also less incentives to use the carpool to return home—less cars and passengers.

Would like to see loading zone near Mission/So. Van Ness established. Beale St is too far to be expedient.

Please move the El Cerrito (Pierce Street) pickup to El Cerrito Plaza/BART—it would be much more useful and more convenient.

Need 2<sup>nd</sup> carpool lane on I-80 and to bridge.

More parking near carpools.

I normally drive alone (unless my husband needs the car). I drive by the spot but if lines are too long, I split. My suggestion. Mark pick-up points so more people know about them—advertise for more riders!

Morning commute: CALTRANS should find a way to keep the carpool lane on Hwy 80 from backing up from the traffic heading south. Evening commute: I don't think many people will use the Beale Street pickup until CALTRANS gets rid of the backup on the Berkeley curve and puts a carpool lane from the Bay Bridge on Highway 80.

Keep carpool lane and carpool bypass at Bay Bridge toll open 24 per day. If Caltrans really wants to encourage carpooling and reduce congestion, this is a no-brainer.

I think Casual Carpooling is a GREAT program! Just another plus for living in the Bay Area!

I'd use the carpool back to N Berkeley BART if there were more drivers. Maybe we need carpool lanes on the bridge? Or some other incentive so that carpools have some advantage on the return trip.

BART ridership would go way up if it was possible to park at stations after 7:45am. This is easy to solve: (1) re-stripe (2) valet parking (e.g., the Trucker's Friend gas station near West Oakland BART station). (3) build parking garage at Rockridge—pay for it by building commercial space along College Ave and by some parking fees.

### **Del Norte**

There is no parking area at Del Norte loading zone, now new stores are built, it will be harder to find parking. How can we force the city to allocate parking area for carpools?

Need a carpool lane in the eastbound direction from Bay Bridge to Berkeley. Need another lane around the "80 curve" in Emeryville.

Casual carpool back across the bay would be more effective if the carpool lane started at an earlier spot than Gilman. Right now many do not carpool back to the east bay because there is no benefit until you get to Gilman.

Parking spots at Del Norte sight: The City of El Cerrito has been warning [not to park] park in the Ex Food Company or Target Lots! These lots have plenty of

room! I am losing faith in the city management of El Cerrito.

Parking near BART for Casual Carpool.

At Beale St move the North Berkeley pick-up toward the Orinda/Claremont pickup. When North Berkeley cars wait for riders it clogs up the cars for Vallejo pick-up. Make the on ramp for the toll ate bypass two lanes off of Hwy 80. That would reduce the Hwy 80 flyover [congestion] at peak morning hours.

If my spouse and I rode BART it would cost \$12 per day for our household (\$240 a month!). I now spend about \$100 a month on gas. No bridge toll and I have free parking. Although I would love to ride BART (I hate to drive), I just can't afford it.

It would be great to get a casual carpool at Marina Bay in Richmond. We currently have very few options.

Let's get a casual carpool started at Richmond Parkway transit center.

### **Vallejo**

We need more parking—not parking tickets.

Transbay buses from Concord/Antioch/WC/Vallejo. Casual carpools at Richmond transit center.

When the passenger line is long at the Beale St loading zone, drivers should pick up extra passengers instead of the minimum (3 total). What will happen to the passenger line when its raining?

More parking a casual carpool pick up locations.

Riders should share some the expenses to help improve insurance coverage. What happens if the vehicle is involved in an accident?

I believe casual carpool drivers should be compensated for their fuel and maintenance costs by each rider. Two dollars seems like a fair amount by each rider. Two dollars in comparison to other modes is quite inexpensive—ferry would cost \$7.

The people at this Vallejo location are too cheap to drive even some of the time. Why don't you guys school the people and tell them that in order for this thing to be fair, they should drive at least twice a week so that regular drivers can get the opportunity to be passengers. I've even picked up people who are coming into San Francisco to go shopping.

#### **College/Claremont**

Please get AC Transit to run longer and more frequently.

Increase the visibility and knowledge of the carpool back home from the city.

More or extended carpool lanes are desperately needed!! On all freeways including highway 24.

Add carpool lane on Bay Bridge. Have carpool news information on radio.

If possible find a location for return carpool that is not so scary (maybe Davis and Market or Beale Mission)—though I know the city might resist that idea on such a congested street.

Have drivers indicate (with small sign on dashboard) where in SF they're heading that could save me 6-8 minutes of walking in the city.

I love casual carpool.

More commuter lanes and ones that start earlier for all approaches to the Bay Bridge.

I would love a pick-up spot in South Berkeley on Adeline or in Emeryville on Powell to take advantage of the Powell St on ramp.

#### **Pierce Street**

As of December 1, 1998 the Asian Pacific Market will no longer allow us to park in their lot, are there plans to make another carpool lot/area or can we work with the Market to still be able to park there? [received essentially this same comment from eight respondents]

I work on upper Market near Castro. If there was an easy way to pick-up riders and a diamond lane going east I would be inclined to use it.

We need a carpool lane on the Bridge and I-80 starting in Emeryville, then I would carpool going home!

If there are lots of riders wanting to back to El Cerrito [Pierce St] can we have a sign at Beale?

I am very pleased with casual carpool and I will continue to be a strong supporter.

I like to pick up riders and use the carpool lane, but from a traffic engineering view, it's idiotic. Carpooling encourages more driving: if there weren't any carpools the riders would take BART or AC Transit—and so would lots of the drivers. Carpooling simply makes driving a timesaver for people who'd drive anyhow.

I suggest that casual carpooling be advertised on TV or radio. I only see signs right now on the roadside.

#### **Lafayette/Orinda**

Please try to improve the Beale St program to Lafayette/Orinda! Thank you!

Make BART more reliable and less crowded.

BART needs to run more frequently during commute hours, particularly to Pittsburg/Bay Point.

Please advertise the Beale St loading zone so that more drivers know about it.

Get BART to provide parking for casual carpoolers.

Are you aware that there is a successful casual carpool located in the town of Moraga as well? Suggestion: have adequate parking located near casual carpool pick-up locations!

No benefit to drive carpool home [need] lanes in evening commute direction. Also carpool parking lots in City.

Carpool zones in other parts of city. Diamond lanes on 580 & 24. Redesign BART from ground up. Incentives for carpooling like special parking lots and pickups.

Make it more convenient to use casual carpools by having places to park for those who use it. Casual carpools are inconvenient for the riders. Isn't your purpose to help relieve congestion [?]

When traffic is bad in the evening getting to the freeway from Beale could take as long as 20 minutes or more. Suggest that trucks should be prohibited from using that freeway entrance from 4:00 to 6:00 and a special lane should be opened for carpoolers who are going through I-24 something like I-80 where there are special lanes for commuters. Many drivers have commented that it is not worthwhile to pickup riders at Beale because they have to wait just as long to get to the freeway and they are not getting any benefit at all. If there were incentives more drivers would stop at Beale.

We need a carpool lane to the East Bay! We need carpools from the Pleasant Hill BART station. I like the flexibility and being able to sit down on my commute to and from work.

I have recently started taking the ferry from Jack London Sq. I would do this every day if the ferry was faster and didn't stop in Alameda. So for now I do it only on heavy traffic days (Thur and Fri).

BART at Lafayette is too crowded when you get on the train. So by carpooling you can sit down and read. Need more parking though.

**Appendix 3—Counts in 15-minute Increments.**

	College/ Claremont	Fruitvale/ Montana	Lakeshore / Grand	Claremont/ Hudson	Park/ Hollywood	Orinda BART
6:00-6:15	1	1	6	0	1	2
6:15-6:30	3	1	6	0	4	3
6:30-6:45	3	2	11	2	5	8
6:45-7:00	7	6	15	7	9	7
7:00-7:15	10	10	27	7	19	12
7:15-7:30	16	14	23	13	20	18
7:30-7:45	16	15	33	24	21	23
7:45-8:00	20	16	39	28	20	21
8:00-8:15	24	12	37	27	12	22
8:15-8:30	18	8	28	24	13	21
8:30-8:45	19	6	19	20	12	11
8:45-9:00	15	3	17	13	7	7
<b>Total</b>	<b>152</b>	<b>94</b>	<b>261</b>	<b>165</b>	<b>143</b>	<b>155</b>

	Lafayette BART	N. Berk. BART	Del Norte BART	Pierce Street	Hercules P&R	Vallejo P&R
6:00-6:15	3	4	15	1	16	18
6:15-6:30	8	4	22	1	12	23
6:30-6:45	6	13	33	7	14	20
6:45-7:00	11	20	30	15	25	31
7:00-7:15	10	27	41	13	31	21
7:15-7:30	8	41	32	19	22	14
7:30-7:45	15	45	28	16	16	16
7:45-8:00	10	48	30	15	9	7
8:00-8:15	7	26	36	20	5	6
8:15-8:30	4	15	24	14	4	11
8:30-8:45	2	24	16	12	1	3
8:45-9:00	3	12	7	8	1	0
<b>Total</b>	<b>87</b>	<b>279</b>	<b>314</b>	<b>141</b>	<b>156</b>	<b>170</b>

	Beale St San Francisco
4:00-4:15	9
4:14-4:30	19
4:30-4:45	28
4:45-5:00	26
5:00-5:15	28
5:15-5:30	28
5:30-5:45	28
5:45-6:00	21
<b>Total</b>	<b>187</b>

### Appendix 4—Map.

**Figure 1** Casual Carpool Pick-up Locations Counted

