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Commuter Connection: Flexible Ridesharing in Marin County, California

**Final Report
December 1981**

**UMTA/TSC Project Evaluation Series
Service and Methods Demonstration Program**

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16. Abstract This is a final report documenting the Commuter Connection Flexible Registered Ridesharing Demonstration Project. The purpose of this UMTA-funded Service and Methods Demonstration was to test the feasibility of a flexible registered ridesharing system that allowed commuters to share rides to work on an occasional basis as either a driver or rider. The report describes program planning and development and members' use and attitudes about the system. It identifies those evaluation issues answered by project findings, those that remain unanswered and a series of issues critical to success and in need of further study.					
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PREFACE

The Commuter Connection Ridesharing Demonstration Project was an Urban Mass Transportation Administration funded Service and Methods Demonstration program. The grantee, the Golden Gate Bridge Highway and Transportation District (GGBHTD), contracted with Commuter Connection, Inc., a nonprofit California corporation, to design and implement the demonstration project.

The purpose of this project was to test the feasibility of flexible registered ridesharing, a system whereby registered commuters could share rides to work on an occasional basis as either drivers or riders.

This report documents project planning and development during 16 months of project operations. It also describes members' use and attitudes about the program and analyzes the demonstration findings.

The report has been prepared for the Transportation Systems Center by Edith Dorosin of Crain & Associates. The author wishes to thank Paul Fish, the UMTA technical monitor, for his early and continuing support in nurturing the project along, and the project staff for their cooperation on the varied data collection activities. The Golden Gate Vanpool Project staff deserves special thanks for providing assistance in the final period of data collection and summing up.

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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures				Approximate Conversions from Metric Measures			
Symbol	When You Know	Multiply by	To Find	Symbol	When You Know	Multiply by	To Find
LENGTH							
in	inches	2.5	centimeters	mm	millimeters	0.04	inches
ft	feet	30	centimeters	cm	centimeters	0.4	inches
yd	yards	0.9	meters	m	meters	3.3	feet
mi	miles	1.6	kilometers	km	kilometers	0.6	miles
AREA							
in ²	square inches	6.5	square centimeters	cm ²	square centimeters	0.16	square inches
ft ²	square feet	0.09	square meters	m ²	square meters	1.2	square yards
yd ²	square yards	0.8	square meters	km ²	square kilometers	0.4	square miles
mi ²	square miles	2.6	square kilometers	ha	hectares (10,000 m ²)	2.6	acres
acres	acres	0.4	hectares				
MASS (weight)							
oz	ounces	28	grams	g	grams	0.035	ounces
lb	pounds	0.45	kilograms	kg	kilograms	2.2	pounds
	short tons (2000 lb)	0.9	tonnes	t	tonnes (1000 kg)	1.1	short tons
VOLUME							
teaspoon	teaspoons	5	milliliters	ml	milliliters	0.03	fluid ounces
tablespoon	tablespoons	15	milliliters	l	liters	2.1	pints
fl oz	fluid ounces	30	milliliters	l	liters	1.06	quarts
c	cups	0.24	liters	l	liters	0.26	gallons
p	pints	0.47	liters	m ³	cubic meters	35	cubic feet
qt	quarts	0.96	liters	m ³	cubic meters	1.3	cubic yards
gal	gallons	3.8	liters				
ft ³	cubic feet	0.03	cubic meters				
yd ³	cubic yards	0.76	cubic meters				
TEMPERATURE (exact)							
Fahrenheit temperature	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	Celsius temperature	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature

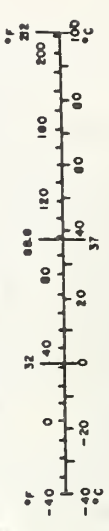
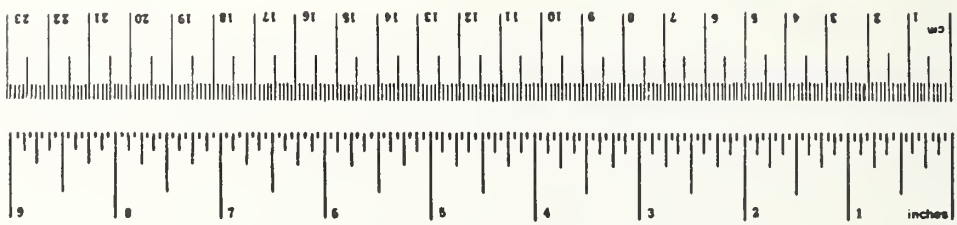


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1. EXECUTIVE SUMMARY

The Commuter Connection demonstration project was designed to test the feasibility of flexible registered ridesharing. The concept, tested in the Golden Gate commute corridor in the San Francisco Bay Area in California, enabled registered commuters to share rides on an occasional basis as either drivers or riders.

Commuter Connection, Inc., a nonprofit California corporation, was created specifically for the purpose of designing and implementing this demonstration ridesharing program. The project began operations on March 27, 1979, and terminated on August 31, 1980. The program was funded by a Service and Methods Demonstrations (SMD) Grant from the Urban Mass Transportation Administration (UMTA) and by grants from both the Metropolitan Transportation Commission, the metropolitan planning organization for the Bay Area, and the California Department of Transportation.

This evaluation documents program planning and development, describes members use and attitudes about the program, and analyzes the demonstration's findings.

The Commuter Connection concept proved to be workable for .7% of transbay commuters, commuting along the Golden Gate corridor south into San Francisco. The demonstration successfully answered questions regarding institutional constraints, insurance coverage, market selection criteria, the value of an in-person registration process, and the effectiveness of a member boarding pass for this form of ridesharing. It also served to highlight a number of issues critical to the successful operations of a flexible registered ridesharing program and to identify areas in need of further study. The successful use of this ridesharing program concept in the Golden Gate corridor was linked to some critical mass of a community of users and to the existence of bus transit as a back-up commute system. Users viewed the program as a viable backup to their primary commute mode and the in-person registration process as a key to program acceptance.

2. INTRODUCTION

2.1 PROJECT OVERVIEW

2.1.1 The Concept

The casual carpool demonstration, Commuter Connection, was designed primarily to test the attractiveness of flexible registered carpooling. It was tested in the Golden Gate commute corridor, a market area identified as one of several potential test sites in an earlier developmental research paper completed under UMTA sponsorship.

Secondary design objectives were to increase auto occupancy, reduce travel times and costs for riders and drivers and to reduce air pollution and conserve energy by assisting persons who normally drive alone to share rides.

The grant application put forward the assumption that commuters are frequently discouraged from participating in carpools because of the fixed times involved in catching the ride. Commuter Connection was proposed as a system with appeal for this group of commuters.*

2.1.2 The Grant and Grantee

The Golden Gate Bridge Highway and Transportation District (GGBHTD), the project grantee, is the primary transit authority in Marin and Sonoma Counties in the San Francisco Bay Area. The district is governed by a Board of Directors composed of 19 representatives from six counties of Coastal Northern California.

The district received a Service and Methods Demonstration Grant from the Urban Mass Transportation Administration (UMTA) to sponsor the casual carpool demonstration program in the Golden Gate corridor. The grant was for \$213,000 and covered a 16-month period of operations beginning June 1, 1979.

* GGBHTD grant request.

2.1.3 Project Description

The Commuter Connection concept differed from hitchhiking, a ridesharing mode to which it was frequently compared, in two major areas.

1. All members were registered. Place of work and residence was verified and an identity photograph taken.
2. The system was marketed as operational during the commute hours, only. Also, matching points were identified on a community basis. The program was designed to build upon pre-existing community identities as a way of encouraging members to share rides not with total strangers, but with people from their own community.

All commuters to San Francisco from Marin or Sonoma Counties were eligible for membership. To become a Commuter Connection member, a person paid a \$2 fee and registered in person at a booth staffed by project personnel.

At the time of registration the member's place of residence and work were verified and identification photographs taken. Staff verified residence by driver's license or personal bank check and work place by paycheck stub or employer ID. If sufficient identification was not available, the applicant's passport was mailed to him or her after staff verified employment by a telephone call to the employer.

The identification photos served two purposes. One photo was affixed to the verified application form and maintained in project files for security purposes. The other photo together with a set of cards coded for origin and destination served as a member's passport or boarding pass.

Each member received a membership packet consisting of the boarding pass, a wallet-type container, instructions for participation and miscellaneous equipment.

To use the system as a driver, a member was instructed to clip the pass to the car's sun visor. To use the system as a rider, the member was instructed to hold out the pass when he/she wanted to match for a ride.

2.2 PROJECT SETTING

2.2.1 Geographic and Demographic

Commuter Connection was designed to serve residents in the North Bay communities of Marin, Sonoma and Napa Counties. Early program emphasis was directed at commuters to San Francisco from the communities of Novato and Mill Valley in Marin County. Novato, a growing community, is located some 30 miles north of San Francisco's financial district; Mill Valley is 15 miles north. Both communities are adjacent to U.S. Highway 101, the major traffic corridor for commuters to San Francisco.*

Novato (population 39,000) and Mill Valley (population 13,500) are similar in that they are primarily residential communities and export workers. (Novato has 7,500 jobs and 20,000 employed residents.) Of the two communities, Mill Valley is older, and more affluent. The mean family income for Mill Valley is \$32,000 and for Novato, \$22,500. Housing costs start at \$120,000 for Mill Valley and at \$80,000 for Novato.**

2.2.2 Transportation Resources

Transportation resources in the region include buses, club buses, ferries, carpool matching services, and vanpool services. The bridge district currently operates or sponsors all of the foregoing modes with the exception of carpool matching services.*** RIDES, the Bay Area ridesharing agency, offers carpool matching services and functions as a third-party vanpool operator with a leased van option.

The Golden Gate Bridge Highway and Transportation District is the primary transit authority in both Marin and Sonoma Counties. The district operates a fleet of 258 buses and 3 ferries.

*GGBHTD projects a yearly growth rate of 1,200 commuters going south across the bridge.

**Marin County planning data for 1979.

***GGBHTD plans to implement carpool matching services in 1981.

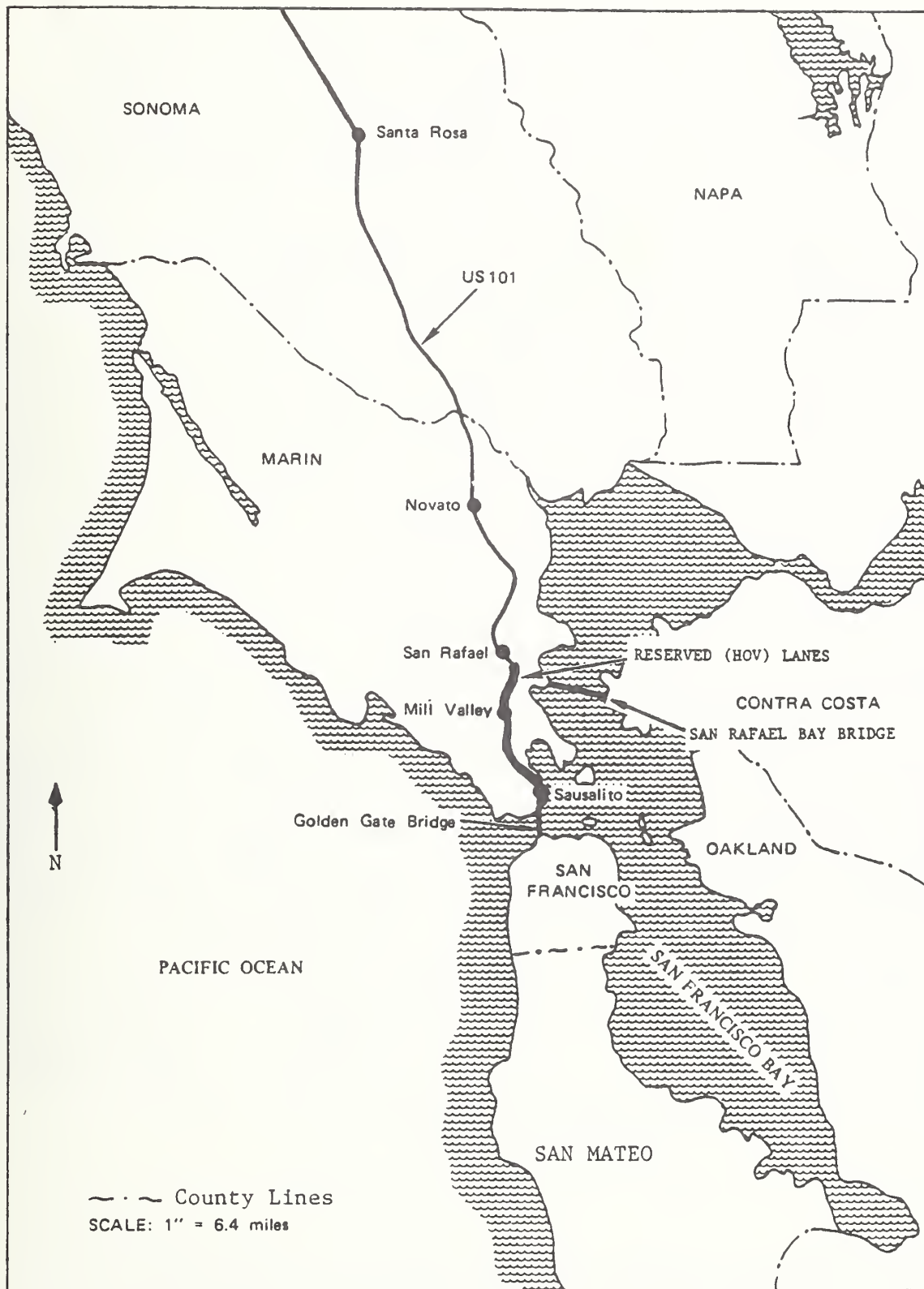


FIGURE 2-1. THE SAN FRANCISCO BAY AREA:
 COMMUTER CONNECTION'S SERVICE AREA

In January 1980, the district created a Ridesharing Division responsible for promoting club buses and vanpools as well as a future carpool matching service and related demonstration projects. The district stimulates ridesharing into San Francisco through toll policies--carpools of three or more do not pay a \$1.00 one-way toll in the southbound direction--and the operation of 3.7 miles of high occupancy vehicle (HOV) lanes.

Both Mill Valley and Novato have a high level of bus service to the San Francisco financial district and civic center. The two main routes serving the financial district, #4 in Mill Valley and #52 in Novato, are at or above capacity for 75% of the morning commute trips; a third route, Novato to San Francisco, is at capacity for all 16 trips in the morning peak. About 1,100 Mill Valley and 1,200 Novato residents commute by bus to San Francisco each day.

U.S. Highway 101 is the major traffic corridor for intra-county commute trips and for trips south across the bridge into San Francisco. Peak hour congestion along the corridor is alleviated by HOV lanes: 3.7 miles of concurrent flow lane southbound in the morning and a combination of concurrent, 3.8 miles, and contra-flow lanes northbound in the evening, 3.9 miles. The contra-flow lane is for buses only. Additionally, two bridge lanes are switched at commute hours to provide 4-lane capacity in the peak direction.

Some 20,500 vehicles travel southbound over the Golden Gate Bridge daily during the commute period, 6:00 - 10:00 AM, carrying almost 40,000 commuters.* Modal split is 28% bus, 20% 2-person carpool, 14% 3-or-more in vehicle and 38% solo auto.**

*Another 1,700 commuters travel to San Francisco by district operated ferries.

**GGBHTD Southbound Count, June 1980.

2.2.3 Extraneous Events Impacting Demonstration Findings

There were two events or conditions not accounted for in the original demonstration design that impacted implementation and usage. These are summarized below.

1. The project opened at an exceptionally propitious time for marketing ridesharing modes in general. Opening announcements and activities coincided with the 1979 energy crisis, a time when fuel availability was restricted, fuel costs had risen 53% in one year and commuters were faced with purchasing gas on odd or even numbered days, depending upon their license plate number. In short, public awareness and interest in alternatives to commuting in one's own auto were high.

The start up level of publicity and activity combined with excellent coverage in the national media and the heightened public interest represented a set of conditions supportive of program usage to a greater degree than at any other time of project operation.

2. On December 4, 1979, the Commuter Connection board of directors determined that the community targeted marketing campaigns were not yielding the desired response in terms of registration activity. The board directed their executive director, the project manager, to shift to a countywide marketing campaign and to emphasize the potential of Commuter Connection as a back up commute mode.

This shift in the project's marketing or implementation plan dramatically changed the demonstration in that:

- a. Staff time, which might otherwise have been spent strengthening the Mill Valley and Novato markets, was shifted to the countywide campaign.
- b. By shifting to a countywide approach at this time, the project lost the opportunity to fully demonstrate the viability of Commuter Connection as a locally promoted, based and used alternative.

The board's perception of the public's response was not necessarily in error, but the project had not exhausted all strategies for soliciting membership at the local level, nor had the project focused on marketing registered members to use Commuter Connection.

2.3 ORGANIZATION AND FUNDING

The Commuter Connection program was sponsored by the Golden Gate Bridge, Highway and Transportation District. The district, as the direct recipient of the UMTA grant, served as project manager and provided technical assistance.

Commuter Connection's operations were funded by grants from MTC, UMTA, and CALTRANS, and with in-kind services provided by GGBHTD and Marin County Transit. The project applied for and received a grant from the San Francisco Foundation, a private foundation, for a media campaign.

CALTRANS:	\$50,000 contract under SB283, funding for demonstration program;
MTC:	\$20,000 from Transit Development (TDA) funds December 1, 1978 to August 31, 1979;
UMTA:	\$213,000 contract under Service & Methods Demonstration (\$189,225 to Commuter Connection, \$24,725 to GGBHTD for project administration)
GGBHTD:	Funds in staff services;
Marin District Transit:	\$2,400 in staff services;
San Francisco Foundation:	\$60,000 for spring 1980 media campaign.*

Commuter Connection, Inc. is the name of a non-profit California corporation created specifically for the purpose of implementing this flexible ridesharing concept. The business was managed by an executive director responsible to a board of directors on issues of policy, and to the GGBHTD project manager on issues of grant compliance and expenditures. In addition to the executive director, project staff consisted of an assistant

*The project expended only \$36,205.91 of the \$60,000 grant.

director of marketing and operations and a secretary-administrative assistant. The full time staff was augmented by part-time staff, employed primarily to staff the registration booths, and by advertising and marketing consultants.

The relationships between the project and the various funding agencies and review bodies are illustrated in Figure 2-2.

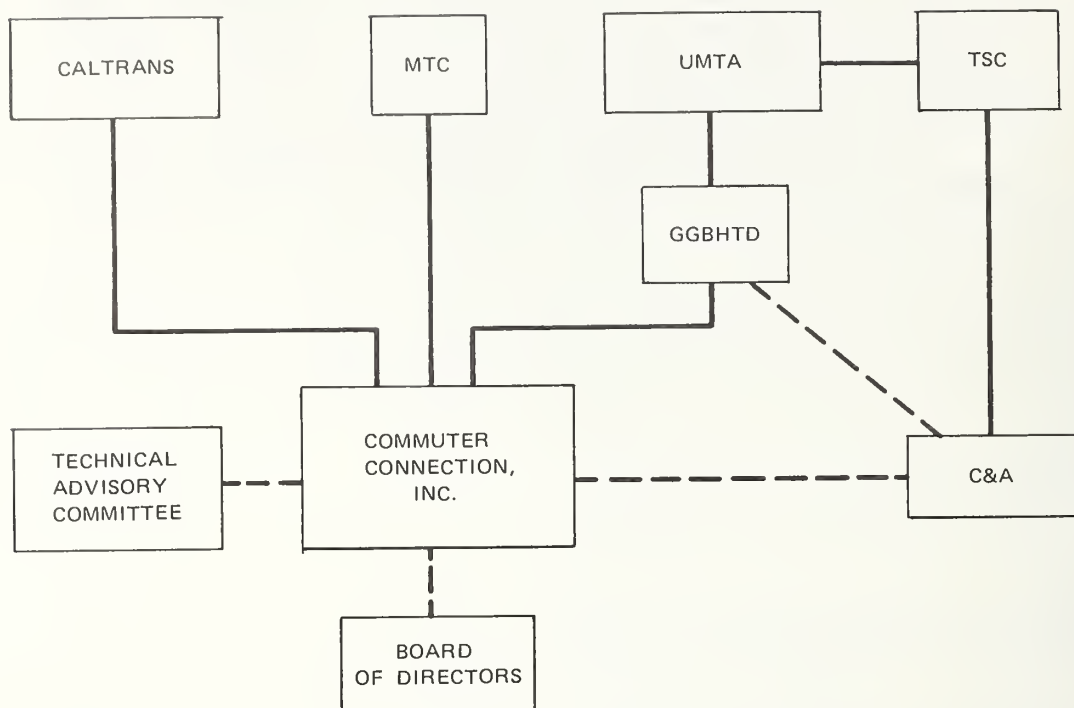


FIGURE 2-2. ORGANIZATIONS

- CALTRANS: California Department of Transportation.
- MTC: Metropolitan Transportation Commission, the metropolitan planning organization for the region.
- UMTA: Urban Mass Transportation Administration of the U.S. Department of Transportation.
- TSC: Transportation Systems Center, research arm of DOT responsible for evaluating all SMD projects.
- GGBHTD: Golden Gate Bridge, Highway and Transportation District.
- C&A: Crain & Associates, under contract to TSC for project evaluation.
- Technical Advisory Committee: Composed of sponsors and local agencies active in ridesharing programs. The committee includes representatives of Caltrans, MTC, Federal Highway Administration (FHWA), the Marin Transit District and RIDES.*

*RIDES is the state sponsored carpool and vanpool agency for the Bay Area.

2.4 EVALUATION ISSUES

The evaluation objectives for the Commuter Connection project were to document project events and trends; to collect data that would answer basic questions of How does it work? Who uses it? When and how often?; and to comment on the appropriateness of a Commuter Connection form of ridesharing for other communities.

The evaluation focused on five major areas: implementation, operations, demand, impact on users and public attitudes. The specific questions to be addressed within these five areas are listed below:

1. What were the institutional problems identified during project planning and how were they resolved?
2. Was insurance coverage adequate?
3. What is the critical mass required to support this form of ridesharing?
4. Were the criteria for site selection appropriate?
5. Did the application process effectively screen prospective users?
6. Did the compensation policy offer an adequate incentive to drivers?
7. Was the boarding pass an effective means of rider/driver identification and was it always used or displayed?
8. Did Commuter Connection's organizational approach work? Was it beneficial or constraining to project implementation and growth?

2.5 DATA COLLECTION

This final report documents and analyzes 16 months of project operations, from April 1, 1979 through June 1980. The analyses of the registration process and marketing activities are based on a combination of sources: projects records, four telephone surveys and two sets of focus groups with Commuter Connection members. Unfortunately, unexpected problems with the changes in

project staff resulted in erratic record keeping and incomplete data collection. The missing data limited the evaluation but probably did not impact general findings and conclusions.

The four telephone surveys served two critical functions. They gathered data needed for project evaluation, and they were the only regular source of member feedback on fares, pass design and usage, project marketing activities and, most important, use of the system. The surveys were, also, a subliminal marketing ploy--that is, a call to members to ask if they had successfully used the system or how they felt about fares versus no fares frequently resulted in extensive comments about 'a great idea,' what the staff should do to promote project success and the like. Because the surveys were designed to provide feedback to the project on specific program components, each survey varied from the others. Surveys, sample size and survey focus are listed below.

<u>Survey</u>	<u>Sample Size</u>	<u>Survey Focus</u>
June 1979	<u>57 members</u> All from Novato	<ul style="list-style-type: none"> ● User preference for fare or no-fare ● Usage patterns
October 1979	<u>198 members</u> 81 Mill Valley 117 Novato	<ul style="list-style-type: none"> ● Response to marketing activities ● Mid-way feedback to project staff ● Usage patterns
March 1980	<u>302 members</u> 113 Mill Valley 88 Novato 53 Other	<ul style="list-style-type: none"> ● Response to project re-design features ● Response to marketing ● Usage patterns
July 1980	<u>247 members</u> 71 Mill Valley 18 Novato 44 Other	<ul style="list-style-type: none"> ● Response to marketing ● Usage patterns

The focus groups, one in October and two in July, were scheduled in conjunction with the member surveys. This evaluation strategy

was extremely effective for exploring members' attitudes about safety, hitchhiking, exchanging fares, sense of community, the role of the transit district and how to better promote the program.

The focus groups were conducted by a trained professional under subcontract to the project; the session outline of topics was cooperatively designed by project staff, evaluator and subcontractor. The process and the technique are recommended as a cost effective means of understanding the attitudes of (potential) users of a ridesharing mode. The focus group technique allowed Commuter Connection staff working through the group leader to informally query users regarding program elements that truly worked as well as those that were not working or that generated an unanticipated user response. The staff was able to immediately incorporate the users' responses into program modifications designed to better meet the market demand.

3. PROGRAM PLANNING AND DESIGN

3.1 OVERVIEW

Commuter Connection began operations as a business in September 1978. Funding was obtained from Caltrans and the executive director was hired. The program planning period continued through February 1979. During this six-month period the project went through public hearings, the A95 review process and minor organizational changes. It also received an MTC grant and instituted formal application procedures for a larger UMTA grant. Figure 3 illustrates the sequence of planning activities.

<u>1978</u>	<u>1979</u>
SEPTEMBER	FEBRUARY
<ul style="list-style-type: none">● \$50,000 CALTRANS grant● Executive director hired● Organization adopts name COMMUTER CONNECTION	<ul style="list-style-type: none">● A95 review completed● GGBHTD agrees to serve as project sponsor
DECEMBER	MARCH
<ul style="list-style-type: none">● \$20,000 MTC grant● GGBHTD holds public hearing● A95 review begins● Board expands to nine● Marketing consultant hired	<ul style="list-style-type: none">● Apply for UMTA grant <div style="border: 1px solid black; padding: 2px; text-align: center;">REGISTRATION OPENS IN NOVATO MARCH 23</div>
	MAY 1
	<div style="border: 1px solid black; padding: 2px; text-align: center;">COMMUTER CONNECTION begins operations in Novato</div>
	JUNE 1
	<ul style="list-style-type: none">● \$213,000 UMTA GRANT

FIGURE 3-1. PLANNING MILESTONES

During the A95 review process, the MTC staff recommended that the scope of the project be reduced. These recommendations were implemented and Commuter Connection reduced the duration of the demonstration to 12 months (from 18) for a budget of around \$200,000 (from \$300,000). At that time, the proportional amount budgeted for marketing activities was increased. The approved project budget allocated 47% of the monies for staff salaries, 31% for marketing and 18% for overhead. (See page 38.)

3.2 INSTITUTIONAL ISSUES

Prior to program implementation, Commuter Connection examined and resolved institutional or regulatory issues as follows:

DRIVERS INSURANCE: Ordinary automobile liability policies provide the coverage needed for casual carpooling. The driver is covered so long as any "fares" paid by the riders constitute expense sharing. This reading of the insurance laws was confirmed by Allstate, CSAA, State Farm and Safeco Insurance companies.

PROJECT LIABILITY: Because Commuter Connection disseminates information but does not operate vehicles, it is unlikely that Commuter Connection would be found liable for a loss sustained by a driver or a rider. Commuter Connection has a policy that provides \$3,000,000 comprehensive general liability coverage with GGBHTD noted as the additional insured.

LEGAL STATUS OF HITCHHIKING: Hitchhiking is legal in California. Pedestrians are disallowed from freeways, but allowed at bus stops along freeways. Commuter Connection participants can match for rides along ordinary streets following the usual safety rules for loading and unloading passengers from private vehicles.

PUC REGULATION: Commuter Connection is an information service and not in the transportation business. It facilitates private arrangements to share rides. Therefore, Commuter Connection is not subject to regulation by the Public Utilities Commission (PUC).

3.3 SAFETY AND THE REGISTRATION PROCESS

The issues of safety or security for member participants were identified as critical to the success of this ridesharing concept. In Marin County communities, urbanized areas with major collector routes, the issue focused on balancing adequate security checks with a registration process that would facilitate enrollment. The registration process was designed to serve as a screening process that would assure members that all other pass-holding members were verified, authentic members.

Registration involved a member completing an application form and having an identification photo taken. At the time of registration, both residence and work place were verified. On occasion, project staff verified work place by calling the noted employer. Once verification occurred, the packet of pass and instructions was mailed to the member. One photo, affixed to the member's boarding pass, provided photo identification at the time of use. A duplicate photo along with completed application form and verification was maintained in project files.

3.4 MEMBERSHIP POLICIES

Eligibility The project was originally designed as a ridesharing program for commuters only. Membership was limited to adults, persons 18 years old or older and was valid for the life of the one-year program. In March 1980, membership was extended to college students attending the College of Marin. A registration booth at the college was staffed by students as a class project. A new orange boarding pass was created to distinguish student from commuter members.

Fees A \$15 membership fee was considered, however, project staff and advisory bodies agreed that a lower fee of \$2 was suitable for this demonstration and would foster higher enrollment.

Fares A NO-FARE policy was initially adopted by Commuter Connection. Though a formula for a fare related to local bus fares had been considered, staff and advisory bodies were unable to reach a consensus regarding a fare and the NO-FARE policy became operational. As part of the redesign, a fare schedule was suggested. (Section 3.5)

Driver Incentive A driver incentive to participate in Commuter Connection existed by virtue of the commute south into San Francisco over a toll bridge. Bridge policy exempts a 3-person carpool from the \$1.00 one-way toll. In addition, the 3.7 miles of high occupancy vehicle (HOV) lanes north of the toll bridge serve as a driver incentive to go from solo auto to carpool status.

3.5 MEMBER EQUIPMENT

Each member was mailed a membership packet consisting of instructions for using the system, their identification card with photograph affixed, a plastic wallet to carry and display their ID and some miscellaneous equipment. A redesigned membership packet was mailed to all members in February 1980. The impetus for the redesign was member response to the boarding pass and general use of the system obtained via the October 1979 focus groups and the member survey.

The major changes in equipment were a redesigned boarding pass, a new system of match point symbols, revised instructions on where to match for rides and a suggested fare schedule.

Also, the revised equipment included a Commuter Connection logo decal and a Fare Schedule sticker for members to mount on their cars.

These changes in equipment design and the reasons for revision are described below:

1. Match Point Symbols



The redesigned system used words and abbreviations rather than a combination of three or four letters and digits.

2. Boarding Pass



The redesigned pass utilized two panels and provided a mylar panel for a member to write in his or her own specific destination. This larger passport was the result of modifying the match points into a two-card symbol system. The write-in panel was suggested by members participating in the October focus groups.

3. Instructions to Match

In the earlier packet, instructions included a map of the community(s) and San Francisco central business district (CBD) with the match points noted. In the redesign there were no maps and members were instructed to match 'near' any bus stop. This modification was in response to members' suggestions

to establish a more 'universal' matching system. (Bus stops are located at most major intersections.)

4. Fare Policy

The early packet made no mention of any exchange of fares. Staff believed that there was sufficient member interest in initiating a fare system as recompense to the driver. The GGBHTD project manager and UMTA agreed to test a suggested fare schedule as part of the re-designed member packet.

3.6 MARKET SELECTION

3.6.1 Market Area Selection Criteria

The selection of Novato as the first community to receive Commuter Connection focused marketing was based on a ranking scheme designed by project and Golden Gate staff. Criteria ranked were as follows:

1. High Volume of Transbay Commuters
2. Major Collector Routes
3. Manageable Location (one jurisdiction as opposed to several)
4. Population Density
5. Mix of Housing, Age, Income
6. Transit Patronage at or over Capacity
7. Traffic Congestion
8. Backup Transit Service
9. Time and Cost Savings
10. Walking Distance to Collector Routes
11. Availability of Parking Along Collector Routes

Twelve Marin and Sonoma communities were ranked against these criteria. Novato was selected because 14% of the population commuted to San Francisco, there were numerous major collector routes, it was a single jurisdiction with a sense of civic identity, transit was at capacity during peak commute

hours, and its backup transit services was available on a 24-hour basis.

As a result of observing operating in Novato and analyzing the June survey of Novato members, the market selection criteria were modified prior to selection of the second community area to receive focused marketing. The critical lesson learned in Novato was that members tended to use a few key matchpoints located at major intersections. Staff concluded that a service area with many routes and 12 potential matchpoints necessitated a larger number of members to facilitate matching than would a more constrained service area with fewer major feeder routes and a limited number of match points.

Mill Valley was the next community selected for focused marketing. The selection of this second market area was based upon the local street patterns and the fact that many Mill Valley residents had already enrolled at the bridge registration site without benefit of community focused marketing activities. Mill Valley is a well-defined community of 13,000 residents and has two major collector routes and five major intersections or logical match points. Also, bus service is at capacity during peak commute hours.

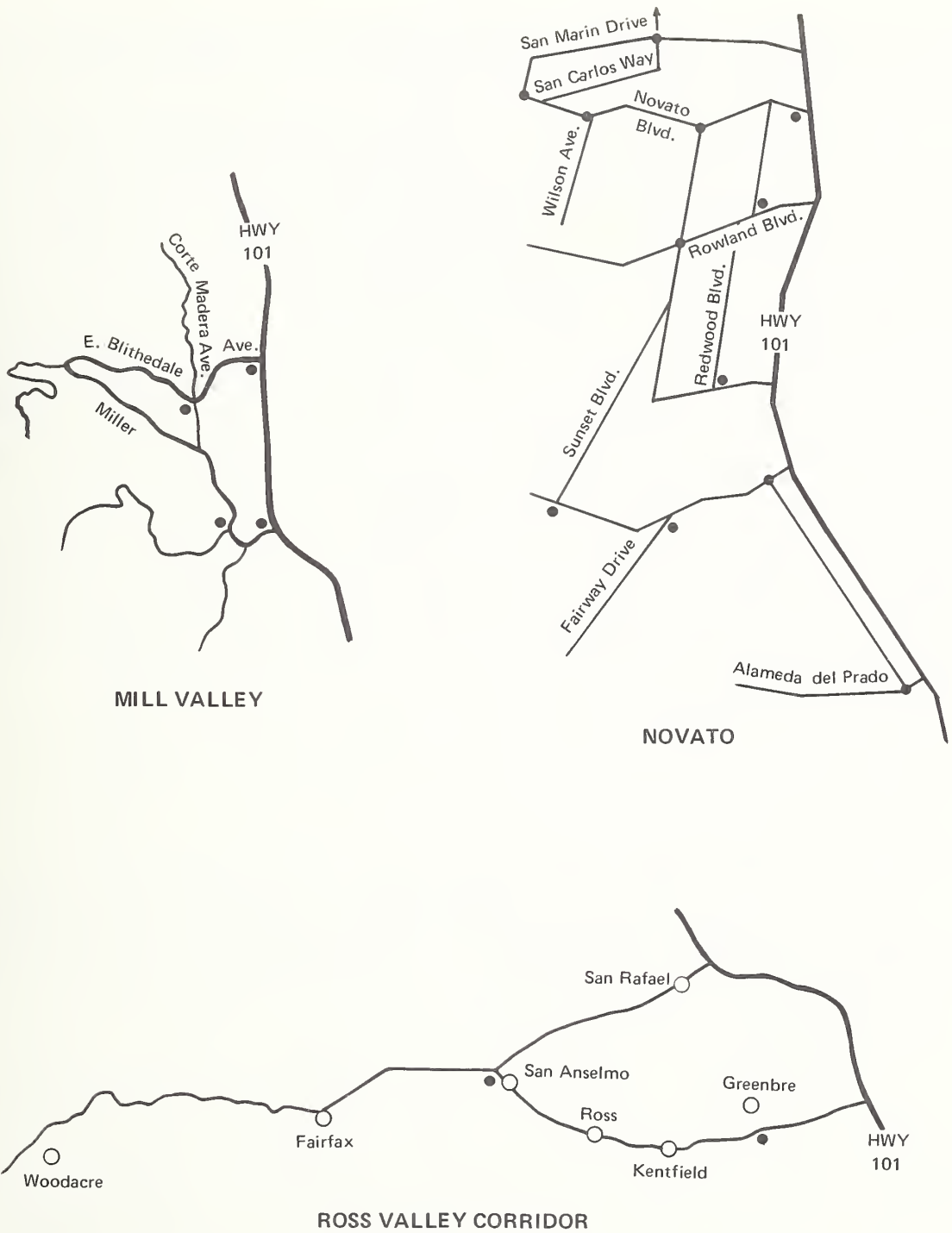
Ross Valley was the third local market area selected. Ross Valley is defined as the urban development along the Sir Francis Drake Boulevard, a collector route lying south of Novato and north of Mill Valley. The corridor is composed of seven small suburban communities and feeds into Highway #101 at two junctures. This area was selected as a target market because it represented a linear market area and thus was quite different from Novato or Mill Valley, cluster-type single community markets.

Figure 3-2 presents maps of the three local markets.

3.6.2 Match Point Selection Criteria

Detailed criteria for selection of match points at the home end of the trip were developed following the operational experience in Novato. Members surveyed in June indicated a preference

● Match Points



NOTE: Mill Valley and Ross Valley corridor are at scale of 1" = 3 miles; Novato is 1 1/4" = 3 miles

FIGURE 3-2. LOCAL SERVICE AREAS

for matching at specific Commuter Connection match points, rather than along suggested general routes.

Criteria considered in selecting match points in Mill Valley were close proximity to bus stop, safe loading and unloading, legal to stop, pedestrian access, general safety (lighting, visibility), availability of parking and the possibility for expanding to park-and-ride situations.

The criteria for selecting match points at the work end of the trip were minimal, at bus stops or major intersections in the San Francisco CBD(s). The San Francisco Department of Public Works was contacted for and granted program approval; yet, there was no concerted staff effort directed at identifying safe, visible workable match points somewhat outside the evening commute line-up of cars, buses and trucks on downtown streets. This lack of effort expended on the return trip was to plague the project throughout its operations.

3.7 OPERATIONAL DESIGN

Commuter Connection was designed to be a flexible registered ridesharing system for commuters. The system was marketed as operating Monday through Friday during the commute hours, 6:30 to 9:00 AM and 4:00 to 6:30 PM.

Commuter Connection operated in Marin County on major collector routes that fed into Highway #101 going south across the Golden Gate Bridge to San Francisco employment centers. Originally, members were provided maps identifying Commuter Connection matching points at both the residential and work end of the commute trip. The majority of match points were located either at major intersections or in the vicinity of bus stops. Each match point was assigned a letter or combined letter and number code. For example, FD3 was the symbol for the

Sansome and Washington intersection in the San Francisco financial district; FD5, at Sansome & Pine, financial district; and CC is the symbol for Van Ness and McAllister, the major intersection in the Civic Center employment area.

As part of the redesign, members were told they could watch for rides 'near' any bus stop. The rationale for revamping this program component was to create a simpler, more 'universal' match point system, a suggestion resulting from the October focus groups. The 'near' derived from Golden Gate bus transit management's perception that members matching 'at' a bus stop would pose a safety problem for the public buses.

Driving members were instructed as follows:

When You Wish to Drive and Offer Rides:

- Use the clip to fasten your passport to your car's visor on the passenger side so that your I.D. panel (with your photo) is visible from the outside. (If you fold the destination panels back and clip them from underneath, you won't obscure the I.D.) The law requires that it not hang below the area covered by your sunvisor.
- You can assist Commuter Connection riders going to any destination by taking them to a major route where there will be more drivers headed their way. (For example, if you live in San Anselmo and commute to San Francisco, you could take someone with a passport showing MARIN CIVIC to a point near Highway 101.)
- Be sure to pull over at a point which is safe.
- You are never obligated to offer a ride.
- If you accept the suggested rider fares, your insurance coverage will not be adversely affected.

Riding members were instructed as follows:

When You Wish to Catch a Ride:

- Simply slip the required clear destination cards in front of the yellow reflective panels in your passport.

- You can display your passport near any bus stop. (The bus serves as backup transportation. Do not otherwise seek a ride on a freeway or onramp as it is illegal.)
- When a driver stops, show him or her your I.D. before getting in the car.
- Try displaying your passport as you walk down your street so you can catch a ride to a major route where you can match with someone going to your destination.
- You may use the marking pencil on the blank panels to indicate a more specific destination (e.g., if you are driven from San Francisco to the Mill Valley exit and wish to show others you're going to Tam Valley.)

Regarding FARES, members were instructed as follows:

A fare helps the driver defray the expense of gasoline and parking, especially on the longer trips to San Francisco. We offer below suggested fares which riders may pay drivers. They are also listed on the fare card which may be displayed on the dashboard. (It can be stuck and restuck and leaves no marks.) By displaying the fare card, the driver indicates to the rider a desire to receive the fare.

One-way to or from San Francisco*

South of San Rafael	\$.50
San Rafael to North Marin	.75
Sonoma and Napa Counties	1.00
Local (within Marin, Sonoma, and Napa Cos.)	.25

*Fares were arbitrarily set at 25¢ increments: the longest commute at \$1.00 to short local commutes at 25¢.

4. PROJECT OPERATIONS

Commuter Connections officially began operations on May 1, 1979, when the system was announced 'in place' for residents of Novato commuting to San Francisco. Originally designed to terminate on June 30, 1980, the project was extended to August 31 as a result of obtaining additional funds. Project staff proposed and the District staff considered the possibility of funding Commuter Connection services beyond the demonstration period. However, the District's Board of Directors, determining that the demonstration results did not warrant continuation, voted to terminate the project on August 31, 1980. Prior to this date, all members received a letter alerting them to the close of the demonstration and offering a refund of the \$2.00 registration fee. (16 members requested a refund.) Figure 4-1 notes major events in program development.

FIGURE 4-1.
MAJOR PROGRAM MILESTONES

1979	March 27	Community marketing in Novato begins
	May 1	Opening Day in Novato
	September	Community marketing in Mill Valley begins
	October 1	Opening Day in Mill Valley
	December	Marketing plans revised
1980	February	Redesigned pass and revised matching instructions mailed to all members
	March	Media campaign implemented
		College of Marin opens registration for students

4.1 PROJECT MANAGEMENT

4.1.1 Overview

Project management was negatively impacted by an organizational structure that included two policy boards and by a demonstration design that did not require standardized planning and evaluation.

4.1.1.1 Organizational Structure - UMTA funded the Commuter Connection project based on earlier feasibility studies of the casual carpool concept. The Golden Gate corridor appeared to be a likely test market site and the District a responsible project manager. The existence of a local group of citizens advocating for this concept further served to support UMTA's decision to fund the demonstration. The District assumed the responsibility for supervising the executive director and reviewing policy and project finances. The local group, incorporated as a nonprofit corporation with a board of directors, signed a contract with the District to design and develop the casual carpool concept and hired the executive director. This organizational structure required the executive director to report to two policy boards, the District and the nonprofit corporation. As a result, there was no ongoing centralized process for setting, implementing or evaluating the results of any (marketing) policy, and no established procedures for joint policy setting. The District was not included in the board's deliberations, while the board was not represented on the district-led technical advisory committee. In short, the board and the District operated as two separate non-communicating entities with the executive director placed squarely in the middle. Finally, there was no single body with whom the executive director could work to develop project plans or from whom to take direction. An example of the negative impact of this situation follows.

The nonprofit board, displeased with the lack of success, that is, the relatively few numbers of persons enrolled, voted at their December meeting to significantly alter the marketing plan. UMTA, more familiar with the typically slow evolution of demonstration projects was far less concerned with the need for change. However, a compromise was reached whereby the old plan to market community by community was modified to marketing countywide in addition to marketing to the two communities, Mill Valley and Novato. Meanwhile, time was lost, staff distracted and there was, effectively, no marketing in January and well into February, 1980.

4.1.1.2 Demonstration Design - Another condition impacting project management was the design of the demonstration itself. The project was funded in good faith--an innovative concept which seemed to warrant a demonstration, but the agencies involved were skeptical that a traditional transportation planning approach was the appropriate one. The project was viewed as extremely interesting, but not conducive to rigorous planning, implementation or evaluation procedures. Thus, the project was designed along quite global lines with scant attention paid to specifics or to requirements to produce a product. A more rigorous program design would have benefited project management by providing the executive director with continuous review, input, and guidance.

4.1.2 Management's Approach

Project management's approach to program implementation was almost wholly marketing-oriented. The objectives of this approach were to stimulate public awareness of the program via coverage in local and national media and enrollment by commuters.

The demonstration benefitted from dynamic enthusiastic project management. Yet, as noted in the preceding section, this enthusiasm along with a general program marketing approach of trial and error were not integrated with more traditional measures of project planning and evaluation procedures.

The project suffered from understaffing and irregular changes in staffing during the first six months. This set of circumstances resulted in incompleting tasks and a generally confused office atmosphere, one not supportive of management's implementation plans. In January, 1980, staff stabilized and the benefits of the new staff were readily visible.

The project utilized consultants to provide advertising services, a \$3,800 contract, and marketing services, a \$13,200 contract. The marketing consultant, in addition to consulting on most project marketing plans and activities, led the focus group discussions.

4.2 MARKETING

4.2.1 Overview

A major design objective for Commuter Connection was to emphasize the marketing of a new ridesharing concept as the key to fostering public awareness and acceptance, enrollment and participation.

To achieve these objectives the project simultaneously marketed countywide and to individual communities. The countywide marketing effort via mass media coverage and brochure handouts at the bridge toll plaza addressed the objective of promoting public awareness and acceptance. The community focused marketing activities of registration, brochure handouts, phone calls and special events linked to registration sites addressed the objective of enrollment.

Specific project activities to promote members' participation once they had enrolled included phone calls to members in Mill Valley and Novato on the eve of opening day, one aborted week of hosting local match points in Mill Valley, and a productive series of bus stop registration events staged in March and April, 1980. Each of these activities involved personal contact between project staff and members during which staff offered encouragement and tips on how to use the CC system.

The project tried varied and numerous marketing activities and generally pursued a philosophy of trial and error. The most consistently used marketing activities were promotional in nature. These included brochures distributed to commuters as they passed through the bridge's toll plaza on their way to work, newspaper ads and inserts and press releases to local media.

The most concerted and successful periods of marketing, in terms of enrollment activity were 1) when the project first began operations, 2) in December 1979, and 3) in March/April 1980. The program's opening coincided with the local spring 1979 energy crisis when the public was quite sensitive to the issue of alternatives to commuting as a single driver. The second period of concerted marketing - including newspaper inserts, full page ads in local papers; feature stories in the San Francisco evening paper and on Channel #5, the CBS TV station; a membership mailing with project brochure and decal enclosed - produced a healthy number of enrollees, in spite of the cool weather and holiday season. The third period of marketing activity was a media campaign (discussed in detail later on in this section) and was the most intense period of project marketing in terms of money spent.

4.2.2 Marketing Plans

Early marketing plans called for implementing intensive local promotions targeted at a series of Marin and Sonoma County communities. Program operations began in Novato, the first of these community markets, on May 1, 1979. Opening day was preceded by six weeks of promotions linked to local registration sites.

Community registration and promotions were implemented in a second community, Mill Valley, in late August. Opening day was again preceded by special local promotions, street banners, posters and phone calls to registered members the evening before the scheduled opening, October 1.

However, because community membership was below anticipated levels and because each community focussed promotion required a great deal of staff time, plans to initiate marketing efforts in other communities were changed. Project staff and the advisory bodies determined it would be more productive to focus all community marketing efforts on building membership in Mill Valley and Novato.*

At about this same time, in December 1979, the tenth month of operations, a decision was made to initiate a countywide marketing effort. The thinking here was that since many commuters outside of Mill Valley or Novato were already enrolled, the project should attempt to stimulate enrollment countywide in order to make the system work for these members, too.

4.2.3 Countywide Marketing

Countywide marketing is defined as any marketing effort directed to all Marin or Sonoma County residents. It included coverage in the local and national mass media, brochures handed out at the toll booth plaza and a series of activities implemented in the spring of 1980 as part of a specially funded media campaign.

In January 1980 the project recieved a \$60,000 grant from the San Francisco Foundation. The objectives of the grant were to conduct a media campaign to increase the membership from 970 to 4,000; to use a variety of media for the purpose of reaching the commuters; and to increase intra-county commuter participation.**

*As a consequence, a third community market, the Ross Valley Corridor, was initiated but never received community targeted marketing. Commuters from this corridor had access to registration at the Strawberry Shopping Center, and, for a period of two months, at two shopping centers located within the corridor itself.

**San Francisco Foundation Grant Agreement, January 28, 1980.

These funds were expended on the following items:

- Newspaper ads
- Radio spots
- 2 Outdoor billboards
- Brochures
- Bumper stickers, decals and t-shirts
- Slide show and display for Marin Home Show
- Member newsletter
- Membership contest

The San Francisco Foundation funded media campaign took place in March and April, 1980. During these two months, 325 new members enrolled. With the exception of May, 1979, the first month of program operations when 302 persons enrolled, this 2-month period included the greatest enrollment activity (see Demand Section 5.11, Member Enrollment). March, the period of greatest media activity, accounted for 212 registrations, the second most productive month in terms of enrollment.

Clearly, this media campaign positively impacted enrollment activity even though the objective of enrolling some 3,000 new members was not met.

The media campaign included press releases to all media, a series of humorous radio spots, a billboard sign strategically placed to capture the attention of transbay commuters, and the March toll bridge brochure handout. Members exposed to the foregoing activities were surveyed in March regarding their recollection of the different ways the project had been publicized. Their responses differed significantly from another group of members surveyed in July, a time preceded by two months of quite minimal project promotions. Table 4-1 compares members' responses to these project promotional activities. March members' significantly higher recall of news, radio and TV promotions in March compared to July members' is not surprising, since there were no similar promotional activities in May, June or July.

TABLE 4-1. MEMBER RESPONSE TO PROMOTIONAL ACTIVITIES

<u>Promotional Activities</u>	<u>Survey Response</u> (percent recall)	
	<u>March 1980</u>	<u>July 1980</u>
News Article	31%	18%
News Ad	27	9
Radio Ad	21	3
Radio, Other	8	3
TV News	9	5
Billboard	10	2
Bridge Handout	46	10
Bridge Sign	48	12
Posters	11	3
Registration Table	56	37
People at Match Points	14	6

It is notable that the March members' recall of bridge handout and sign, promotional activities which were continuous and not integral parts of the campaign, is greater than for the special media promotions. Also, fewer of the March members recalled the commute-time humorous radio spots than recalled the ongoing bridge sign.

The generally higher recollection of all promotional activities by members surveyed in March versus July suggests that the media campaign yielded heightened overall project awareness by members. The campaign apparently also impacted members' use of the system; the March respondents recalled seeing people matching more frequently than did July respondents, 14% vs. 6%. Also, the March member survey found the greatest level of member success, 70% of those who tried, compared to both an earlier and a later survey which found 68% users and 33% non-users.

Nonetheless, project staff interpreted the increases in enrollment activity as modest and felt that the campaign

was not breaking into new territory. It was not stimulating large gains in enrollment activity. As a result, the media campaign was cut short and a portion of the funds allocated were never spent.

4.2.4 Community Focused Marketing

Community focused marketing is defined as any activity or promotion targeted to the communities of Mill Valley or Novato. The objective of these activities was to encourage enrollment. This element of project marketing included a broad spectrum of activities such as free coffees, wine and cheese open house registration events at local restaurants, distribution of posters for display in local stores and business and special registrations at local bus stops.

In both Novato and Mill Valley, staff called members the evening prior to opening day to encourage use of the system. In Mill Valley staff planned to "host" or be present to talk to commuters at the five designated AM match points; however, excluding opening day, assigned personnel regularly failed to keep their schedule.

The community focused marketing activities served several functions. They gave the project visibility and allowed joining members to meet other potential users. Additionally, coffees, phone calls and special registration events provided occasions when local residents could learn about the program as well as educate project staff to local commute conditions and concerns.

4.3 THE REGISTRATION PROCESS

The registration process was a key marketing activity of the Commuter Connection program. The process provided an

opportunity for staff to disseminate information and gave the project visibility. Some 38% of 747 members surveyed reported first learning about Commuter Connection program at the point of registration.

Registration sites were initially selected on the basis of accessibility to large portions of the community, heavy foot traffic and availability for this type of activity. Sites were dropped when they produced diminishing results -- that is when there was a consensus on the part of staff that too few persons were enrolling per hour of open registration.

Registration sites fell within three general categories: sites accessible for countywide registration, sites located in a specific community and special registration sites. Community sites were generally shopping centers. The center's or store's management typically allowed the project to set up the registration table in a visible location. In only one instance, a market located in the Ross Valley corridor, did the management limit registration activity to a 2 month period of time.

Countywide locations consisted of a site adjacent to the bridge toll plaza--May through October 1979, and one at the Strawberry Shopping Center, a regional center adjacent to Highway #101 in Mill Valley--July 1979 through May 1980. The bridge site was generally open on Wednesdays and Thursdays from 7:00 to 9:00 AM. The Strawberry site was open Tuesday through Friday evenings 5:00 to 7:30 PM and occasionally on Saturday afternoons.

Special registration sites/promotions included one time only receptions and registration at local fairs and a series of bus stop registrations. The most intensive use of the latter type of promotion occurred in March 1980 when the project registered 123 persons at bus stops located in Mill Valley and in three communities within the Ross Valley corridor. The two Mill Valley bus stop registrations each yielded 3 times the number of enrollees

per registration period as did each of the Ross Valley stops. This finding suggests the hypothesis that registration productivity at a given site is closely linked to the level of promotional activity in that community. Mill Valley was the recipient of continuous marketing efforts while, with the exception of two months of weekly registration at two shopping centers and the distribution of posters, the Ross Valley communities were not marketed.

An accurate assessment of which registration site/activity was most cost effective in delivering registrations cannot be made. Complete records of hours per period of registration and times of day for a particular registration site are not available. To attempt to attain some measure of site productivity, this report calculated a productivity ratio for each month of operations. The productivity ratio was calculated by dividing the number of members enrolled by the (approximate) number of registration hours. Figure 4-2 presents this data.

The number of persons enrolled per hour of registration was highest in May, the first month of operation. A second high was achieved in March 1980, the middle of the spring media campaign. After December, with the exception of the March peak, registration productivity never went above 1, i.e., one person registered per hour.

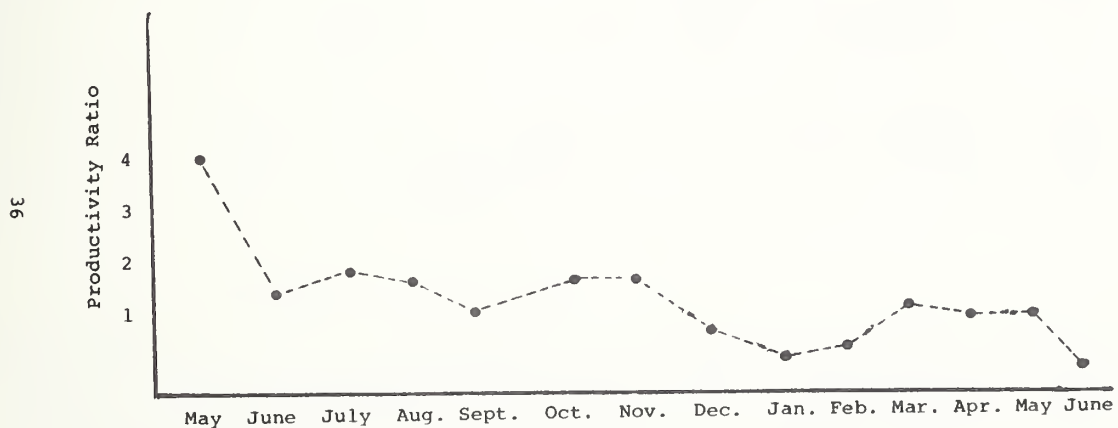


FIGURE 4-2. REGISTRATION PRODUCTIVITY
(Registrants per Hour of
Registration Time)

The most productive registration sites were:

	<u>SITE*</u>	<u>TIME</u>	<u>MEMBERS ENROLLED</u>	<u>PRODUCTIVITY RATIO</u>
1.	Golden Gate Bridge Plaza month of May, only	7-9:00 AM Wed & Thurs	266	10.7
2.	Strawberry Shopping Center month of October, only	5-7:30 PM Tues-Friday	63	2.52
3.	Sawmill Restaurant Mill Valley wine and cheese social	5-7:00 PM Thursday	13	6.5

The least productivite sites were:

	<u>SITE</u>	<u>TIME</u>	<u>MEMBERS ENROLLED</u>	<u>PRODUCTIVITY RATIO</u>
4.	Free coffee at local restaurants on <u>three</u> occasions	7-9:00 AM	0	0
5.	Wine and cheese for 280 invited staff and faculty who commute to University of California at San Francisco from Novato and Mill Valley	5-7:00 PM	3	1.5
6.	December registration at Novato Safeway on four out of four occasions, 12 hours	5-7:00 PM Sat 5½ hours	0	0
7.	Marin Flea Market, April 1980	Sunday 1-4:00 PM	0	0

*The least preferred registration times and site by drivers and riders (October survey) was on the way to or from work at the bridge toll plaza. On the other hand, 266 members enrolled at the bridge site during May, 1979. From this one concludes that commuter preference is overridden when the commuter is sufficiently motivated, as during a time of fuel scarcity.

By early spring of 1980, the project staff was convinced that the number of persons registering varied only slightly in response to the level or type of registration promotions implemented. When asked at the close of the demonstration if there were any areas in which the project had failed, the executive director responded, "yes, the registration process." She commented that registration had never been made convenient in large part because of its in-person aspect. Yet, it is just this in-person program element that attracted members and ensured them of personal safety when using Commuter Connection (See Chapter 6, Public Attitudes).

The demonstration did not generate sufficient data to determine the effectiveness of a particular registration site, why productive sites became unproductive, or what combination of promotional activities and registration locale were most successful. The following hypotheses are based on review of available data and are intended to sum up the experience gained by this demonstration for those considering a similar program.

1. Registration is a marketing activity. It promotes commuter awareness and understanding of the system. It does not necessarily foster use of the system.
2. During a time of crisis, such as an energy shortfall or transit strike, commuters will register at reasonably located sites.
3. Marketing activities or events tied to announced registration sites can stimulate registration. Without this symbiotic relationship, registration sites are likely to be unproductive.
4. Shopping centers and busy bus stops are likely registration sites.
5. An isolated or one-shot type of registration site not integrated with other promotional efforts is likely to fail. The example here is 10 hours of registration, at Novato sites reopened 6 months following the initial community promotions, that yielded zero registrations.

4.4 COSTS

4.4.1 Project Costs

The original UMTA project budget was for \$189,225 to cover a 12-month demonstration period. This was augmented by grants totalling \$150,000, \$2,400 provided by Marin County Transit and a greater amount provided by GGBHTD in staff services.

The project's UMTA budget is presented in Table 4-2. (An additional amount went to GGBHTD for project administration. See page 8.)

TABLE 4-2. COMMUTER CONNECTION BUDGET
(UMTA funds only)

<u>Budget Item</u>	<u>Dollar Amount</u>	<u>Percent of UMTA Budget</u>
Staff salaries and benefits (benefits @ 20%)	\$88,200	51%
Administrative expenses	34,000	18
Marketing (includes marketing consultant for \$13,200)	46,425	25
Subcontracts	13,100	
-graphics & typesetting	\$4,600	
-photo & graphic design	4,700	
-advertising consultant	3,800	
Travel	<u>7,500</u>	<u>4</u>
TOTAL UMTA PROJECT BUDGET	\$189,225	100%

An accounting of how these grant monies were expended is not available. Beyond expenditures for the development of the member boarding pass, an effectively designed program element which can be viewed as non-recurring, it is difficult to determine which costs might be non-recurring for similar projects building on this demonstration project's findings. Minimal project costs, depending on program scale and sponsorship, would include the cost of one staff member, registration equipment and personnel for in-person registration, promotional materials and member passports.

Assuming an approximate total project budget of \$300,000,* each commuter member registration cost the project \$209.**

Assuming a base cost of \$209 per member, the cost to the project for each successful match is illustrated in Table 4-3.

TABLE 4-3. COST PER MATCH

<u>Number of Members in Sample</u>	<u>Frequency of Success</u>	<u>Cost Per Match</u>
30	one time	\$209
16	twice	\$105
24	3-5 times	\$70 to \$42
16	6-10 times	\$35 to \$21
34	more than 10 times	less than \$21

*This table is based on March survey findings for 120 successful members.

*UMTA - \$189,225; CALTRANS - \$50,000; MTC - \$20,000; San Francisco Fund - \$36,205.91; in kind services provided by Golden Gate Bridge District is calculated to be \$23,775.

**\$300,000 divided by 1433 member applications on file. This includes 123 student members.

From the perspective of the user, the system was generally less expensive than bus transit for rider-members who were regular transit commuters, since the majority of these members did not pay a fare. It was occasionally more economical for rider-members, the few who reported receiving a fare.

To the question "Was this a good use of public funds?" the answer must be "yes" and "no." As transportation agencies trim costs and provide service, they will need to consider alternatives to fixed-route transit to shave the peaks and to provide service in (suburban) areas lacking the densities to support traditional transit. The lessons learned through implementation of the Commuter Connection concept may provide guidance to some transportation agencies faced with these service cutbacks. On the other hand, one best estimate of a cost per Commuter Connection trip is \$246. The Golden Gate Bridge Highway, and Transportation District could have subsidized some 170 bus trips for this same amount.*

* Given: (1433 members) x success rate¹ x frequency² = # of trips
1433 x 34% x 2.5 = 1218 trips

Then: project budget³ ÷ 1218 trips = cost per trip
\$300,000 ÷ 1218 = \$246 per trip

Where: 1. Success rate derived by average success of 806 users' responses from 4 surveys.
2. Frequency estimate from responses to surveys.
3. Approximate dollar amount expended by the project.

4.4.2 Passport Costs

The cost of producing each of the redesigned passes was \$3.57 per unit. A breakdown of this unit cost follows.

<u>Item for Each Passport</u>	<u>Cost*</u>
Wallet	\$1.02
Scotchlite Reflective Panels	.58
Printed Destination Cards (4 on clear mylar)	.64
Blank Destination Cards (2)	.10
Logo/ID card	.08
Instructions	.19
Marking Pen	.33
Fare Sticker	.19
Bankers Clasp (for sun visor)	.21
Auto decal	<u>.23</u>
TOTAL	\$3.57

*One-time costs (e.g. special cameras, film, silk-screen charges, set-up charges) total \$2,660.00. This adds a cost of \$1.33 per member if 2,000 passports are produced, \$.27 if 10,000 are produced, etc. Economies of scale could further reduce costs.

5. DEMAND FOR PROJECT SERVICES

5.1 OVERVIEW

An analysis of demand is essentially a diagnosis of the public response to the project services offered. For this project, demand is analyzed in terms of enrollment--How many commuters registered to be members?; usage--How many members tried to use the system?; and successful usage--How many of those who tried made a successful match, either as driver or rider?

Demand is further analyzed in terms of differences between the two communities to receive targeted marketing, differences between users and non-users and by reviewing members' commute trip requirements.

5.2 ENROLLMENT

5.2.1 Member Enrollment

During its 16 months of operations, Commuter Connection enrolled 1433 members. Figure 5-1 illustrates the monthly enrollment activity and the growth in enrollment for the duration of the demonstration.

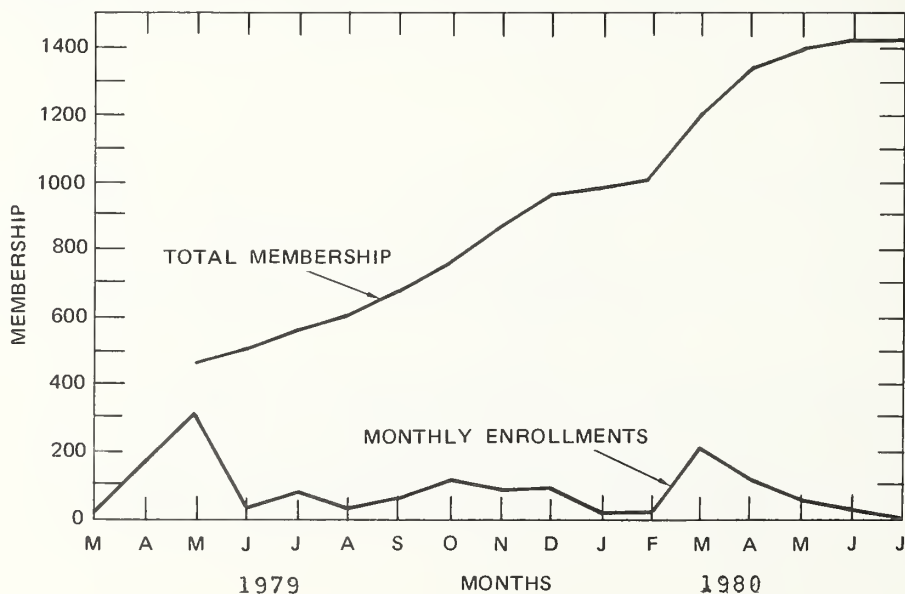


FIGURE 5-1. GROWTH IN ENROLLMENT

Demand as measured by member enrollment was significantly higher at the opening of the program than at any other point during the demonstration. Demand was briefly impacted by a two-day transit strike in July when the project quickly set up interim registration sites for commuters who regularly commuted by bus. During 26 hours* of registration, 65 commuters registered.

Member enrollment ranged from 21 to 302 per month. The average monthly enrollment, excluding March 1979, a one-week month, and July 1980 when the project did not actively market, was 101 persons. When student members (123) are subtracted, the average monthly enrollment of commuters becomes 92 persons during 14 months of project promotions.

Though the great variance in enrollment from month to month is not totally explainable, the level of program marketing activities did positively impact monthly enrollment. Figure 5-2 illustrates diagrammatically how registration activity responded to program marketing.

For the months of lowest enrollment, June and July 1979* and January, February and June 1980, there were no documented marketing activities beyond open registration sites. Additionally, the 1980 low months were months when the registration sites were least productive in terms of numbers of open registration hours per person registered (see Section 4.3 on registration).

On the other hand, those months with the greatest number of enrollment, May 1979 and March 1980, were periods of intensified marketing activity.

*Assumes average of 2 hours per open site.

**Excluding 65 persons registered at one-time sites established to register commuters during bus strike, July registration was 10.

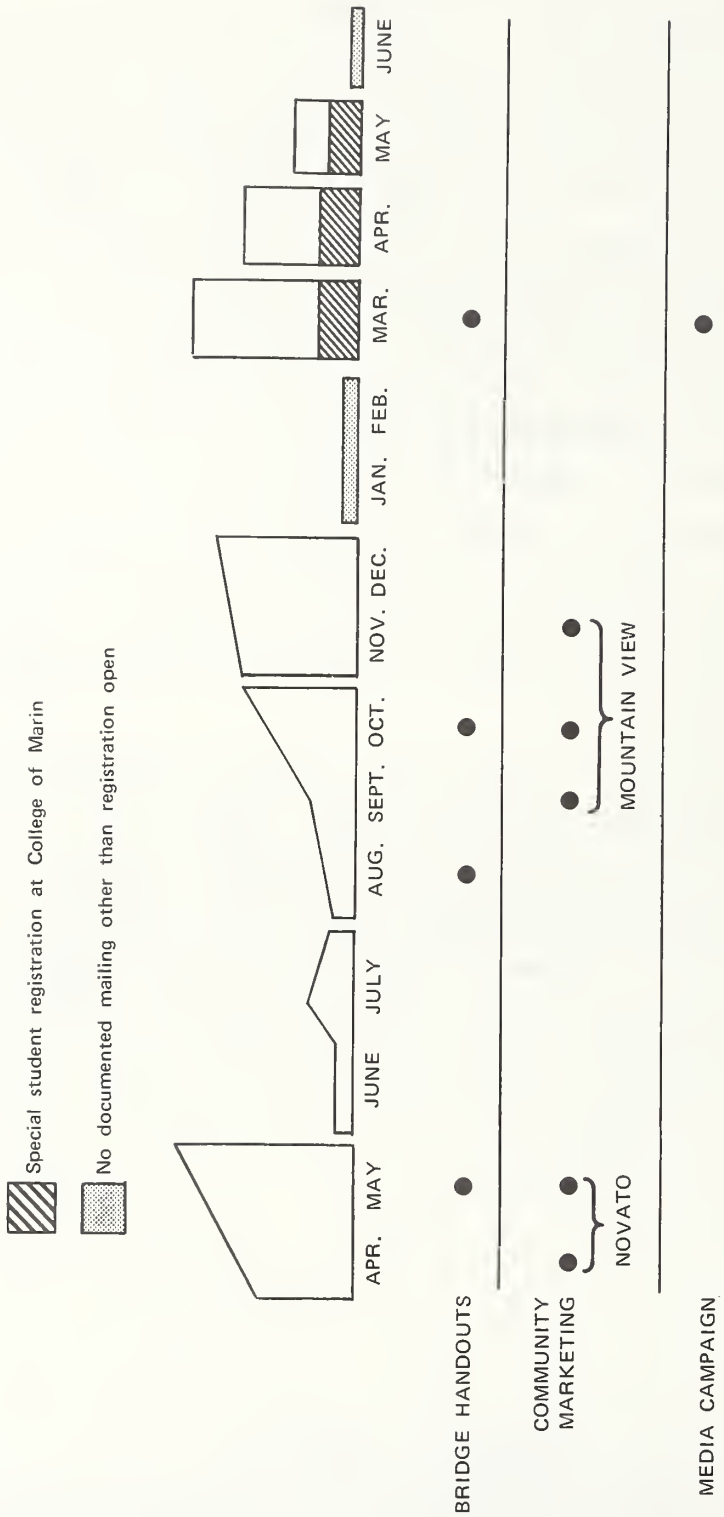


FIGURE 5-2. RELATIONSHIP BETWEEN MONTHLY REGISTRATION AND PROGRAM PROMOTIONS

May 1979

toll booth handouts

extensive coverage in local and national press

end of spring 1979 gas crisis

community focused marketing activities in Novato

March 1980

major mailing received by all members: redesigned passport
and symbols, matching instructions

toll booth handout

major media campaign (\$36,000 expended in 6 weeks)

5.2.2 Enrollment by Community

By the end of the demonstration period 406 members or 29% of the total membership were residents of Mill Valley.

TABLE 5-1. COMMUNITY ENROLLMENT

<u>Community</u>	<u>Total No. of Members</u>	<u>% of Total Membership</u>	<u>% of City Population</u>
Novato	287	20%	.8%
Mill Valley	406	29	3%
Ross Valley	194	14	NA
San Rafael	190	13	NA
Other	356	25	NA

Table 5-1 illustrates enrollment by community. Novato, the first community targeted for marketing, ultimately accounted for 20% of all members; yet membership from this community only gained by 18 from the close of community targeted marketing activities in May 1979 through July 1980. Novato registration sites, briefly reopened in December, yielded no new registrations. Figure 5-3 illustrates the growth in membership for both Mill Valley and Novato.

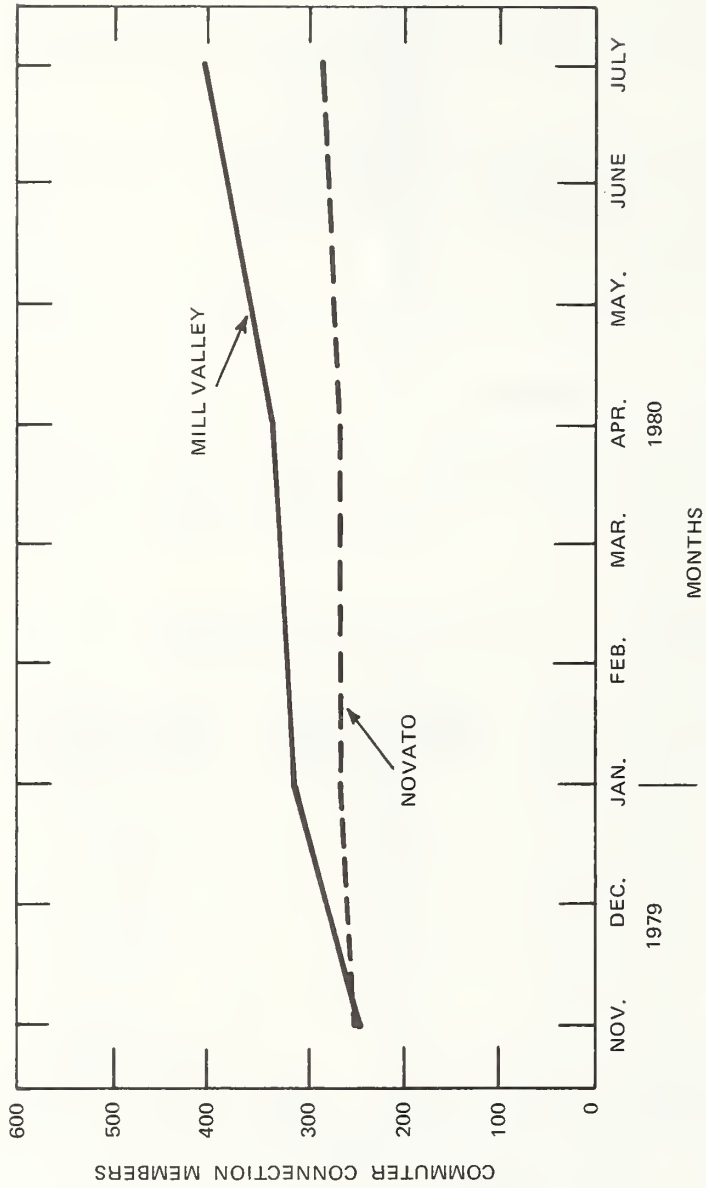


FIGURE 5-3. GROWTH IN COMMUNITY ENROLLMENT

Mill Valley was a more successful continuing market. Community focused marketing in Mill Valley began in late August and carried into November. At the end of November 282 Mill Valley residents had enrolled for Commuter Connection. An additional 124 residents enrolled between December 1 and July 1, 1980.

Conclusions to be drawn from comparing demand in the two communities to receive targeted marketing are:

1. A focused marketing comparison (lasting approximately 10 weeks) in both communities yielded about the same number of registrants, 257 in Novato, 282 in Mill Valley. However, membership as a proportion of the total community was much higher in Mill Valley, population = 13,500 than in Novato, population = 39,000.
2. Mill Valley residents exhibited a higher level of interest in the Commuter Connection system in the absence of focused marketing than did Novato residents. Only 18 Novato residents joined in the 12 month period following focused marketing, whereas 124 Mill Valleyites joined in the 7 month period following focused marketing.

A third community market, the Ross Valley corridor, was put into place in February 1980; however, this market area was never marketed as were the first two communities. Registration sites in the market area were limited to two shopping centers, in addition to the Strawberry Shopping Center site on Highway 101, which served all Marin commuters. No special marketing events were documented. Nonetheless, during the 4-month period of April 1 through July 30, 49 Ross Valley residents enrolled. During this same 4-month period 23 Novato and 62 Mill Valley residents enrolled.

5.2.3 Demographic Characteristics of Members

Application forms completed for the 1433 persons enrolled in Commuter Connection serve as the data base for review of member demographics. These forms, filled out at the time of

registration by a staff member, were fully completed for about 60% of the membership.

Members are male (61%), between 20 and 49 years of age (77%); they work Monday through Friday (86%), start work between 8 and 9:30 AM (70%), and finish between 4:30 and 6:30 PM (71%). The average one-way commute is 11-30 miles for 76% and takes 21 to 60 minutes for the running trip for 77% of the members. Members planned usage of Commuter Connection by role is as driver (31%), rider (24%), or both (45%).

A breakdown of occupation is as follows:

Professional	42%
Managerial/administrative	18.6
Clerical	9
Technical	5
Student	6
Sales	8
Staff	4
Industrial	2
Other	4

The annual household income of members breaks out fairly evenly among four categories.

< \$15,000	20%
15,000 - 25,000	26
25,000 - 35,000	25
> \$35,000	29

Overall, members' demographic characteristics reflected general characteristics of the market area's commute population. Table 5-2 allows comparison of CC member demographics to those of bus commuters and vanpoolers in the same traffic corridor.

TABLE 5-2. MEMBER DEMOGRAPHICS

	1975 Marin to SF Commute Bus	1979 Golden Gate Vanpoolers ¹	1980 Commuter Connection Members
<u>Income</u>			
Under \$10,000/15,000 ²	14.8	6	20
\$10,000-14,999	15.7	11	26
\$15,000-24,999	30.6	35	25
\$25,000/35,000 & over ³	38.9	48	29
<u>Sex</u>			
Male	63	53	61
Female	37	47	39

¹Golden Gate sponsors a vanpool program for commuters in the corridor.

²The \$15,000 minimum was used in the 1980 survey; \$10,000 in earlier ones.

³The \$35,000 upper limits on income was used in the CC survey, \$25,000 was used in both earlier surveys.

CC members exhibit characteristics more akin to those of bus riders than of vanpoolers. This is not at all surprising given that close to 47% of the membership commutes by bus or combination of modes assumed to include bus in most cases. Some 56% of successful rider-users surveyed at the close of the project regularly commuted by bus.

Vanpoolers tend to be more evenly split between men and women and have higher average incomes than bus commuters or CC members.

Table 5-3 illustrates that the modal split for CC members is comparable to that for all transbay commuters. There are two major differences: 1) the greater number of members noting a combination of modes, a category not used for the Bridge District vehicle counts; and 2) the fewer number of carpoolers.

TABLE 5-3.

MODAL SPLIT OF MEMBERS AND TRANSBAY COMMUTERS

<u>Mode Split</u>	<u>1980 Marin to SF Commuters¹</u>	<u>1980 Commuter Connection Members</u>
Solo auto	38	37
Bus transit	28	22
Carpool	34 ²	15
Combination/other		25

¹GGBHTD vehicle count, June 1980.

²The District defines carpool as a vehicle with 3 or more occupants. Two-person carpools are included in the solo auto category.

5.2.4 Student Members

The registration booth operated by College of Marin students at the college accounted for 123 of all CC members. Students were enrolled March through May 1980. The July survey of 248 members included 46 student-members. A higher percentage of students had both tried (74%) to use the system and been successful (63%) than comparable percentages for commuter members. The majority of successful student-users, 86%, were successful as riders.

5.3 USAGE

5.3.1 Overview

How many members are trying and how often do they successfully match? In what role--driver or rider? When and where are matches taking place?

To answer these questions a series of four surveys were designed and implemented. (Section 2.5 describes these surveys.)

Figure 5-4 illustrates the growth in two usage rates:

1. Users--the percent of members who tried to use the system, and
2. Successful Users--the percent of members reporting successful matches.

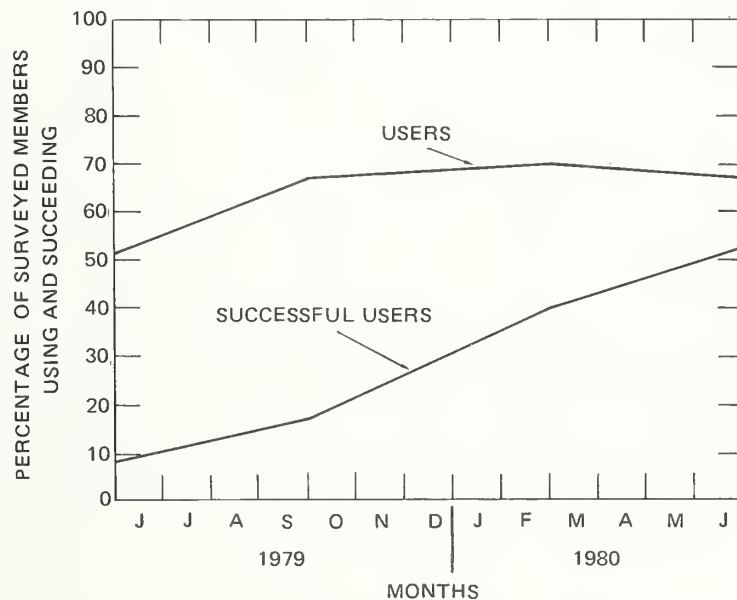


FIGURE 5-4. USAGE RATES

Table 5-4 presents basic usage data collected for each group of members surveyed.

TABLE 5-4. SURVEY FINDINGS

	<u>1979</u>		<u>1980</u>	
	<u>June</u>	<u>October</u>	<u>March</u>	<u>July</u>
1. Sample size	59	198	302	247
2. Users	52%	68%	70%	68%
Non-Users	48	32	30	32
3. Successful users				
<u>Members</u> (% of sample)	9 %	17 %	40 %	53 %
<u>Users</u> (% of those who tried)	16.7	25	57	79
As drivers	60	61	50	41
As riders	23	32	37	46
Both	17	7	13	13
<u>Success Time</u>				
AM		94.3%	85%	64%
PM		5.7	7.5	4
Both		--	7.5	32
<u>Success With</u>				
Member	N/A	60%	43%	23%
Non-Member		34	27	31
Both		6	30	47

Excluding the initial survey in June 1979, a period 4-6 weeks into system operations, the ratio of users to non-users remained constant from October 1979 to July 1980 with about two-thirds of the membership reporting they had tried to use the Commuter Connection system.

On the other hand reported success has greatly increased from 16.7% of those who tried in June to 79% of those who tried to use CC a year later in July 1980.

Success more frequently occurred on the morning commute trip, though members increasingly reported success on evening or both evening and morning trips. Also, as time went on members more frequently matched with non-members.

Successful driver-members were male (75%) who matched on the morning trip (87%) with another CC member (60%). Only one-third of these drivers displayed their CC passes on these successful matches.

Successful rider-members were less frequently male (59%) who matched on the morning trip (83%) with about even proportions of CC members (26%), non-members (35%) or both (38%). These riders consistently displayed their passes (97% of the time) and reported having paid a fare at least once for 44% of their rides.

5.3.2 Community Usage

Novato, population 36,000, distance from the San Francisco Financial District (SFFD) 30 miles, and Mill Valley, population 13,500, distance from SFFD 15 miles, were the two communities to receive targeted marketing. Novato CC members are predominately bus riders while Mill Valley CC members are more frequently solo drivers. Novato is a relatively new residential community with a network of feeder routes funneling into Highway #101. Mill Valley, a much smaller and older community, has a few feeder routes which funnel into Highway #101 at two major intersections.

The June 1979 survey of Novato members--the CC program began operations May 1 with marketing targeted to this community--found that 84% of surveyed members regularly commuted by bus. A second survey, 4 months later, found that 75% of successful Novato users were bus riders.

Table 5-5 compares regular mode to work and use by role for Mill Valley and Novato members. The table illustrates once again that Mill Valley members were more frequently solo drivers than bus riders; also, they more frequently switched back and forth between driver- and rider-member than did Novato members who tended to use CC in the same role. The high percentage of driver-users in Novato

where bus ridership is high reflects findings (from focus groups) that on the occasions when the bus rider-member drives to work he or she tries to use the system.

TABLE 5-5.

MILL VALLEY VERSUS NOVATO MEMBER CHARACTERISTICS *

	<u>Mill Valley</u>	<u>Novato</u>
	<u>March</u>	<u>March</u>
	<u>1980</u>	<u>1980</u>
<u>Mode to Work</u>		
Solo drive	50%	35%
Bus	25	33
Carpool	6	20
<u>Use of CC by Role</u>		
Driver	52	61
Rider	28	32
Both	20	7

*The October member survey found that a majority of Novato members who had never tried CC were bus riders (46%), and that the most frequently cited reason for joining (25%) was as a back-up to their current commute mode. A majority of Mill Valley members who had tried CC were solo drivers (50%); the most frequently cited reason for joining was economic (37%).

In March, 37% of the members surveyed and 51% of successful users were Mill Valley residents compared to 29% of the sample and 19% of successful users from Novato.

Table 5-6 compares Mill Valley to Novato member usage as documented in three member surveys.

TABLE 5-6. USAGE BY COMMUNITY

	<u>October</u>		<u>March</u>		<u>July</u>	
	<u>MV</u>	<u>Nov</u>	<u>MV</u>	<u>Nov</u>	<u>MV</u>	<u>Nov</u>
Sample size	81	117	113	88	72	18
Users:						
% of community sample	70%	69%	78%	61%	85%	61%
Successful users:						
% of community sample	16%	18%	54%	26%	69%	44%

The comparison illustrates that the proportion of members experiencing a successful match increased dramatically between the 6th and 15th month of project promotions. During this same period, the proportion of successful members in Mill Valley increased at an exceptional rate, a growth rate significantly higher than the rate for Novato members.

5.3.3 Work Destinations and Trip Origins

The San Francisco financial district (SFFD) was clearly the most common work destination for members, users and successful users. Thirty-seven percent of members surveyed in October responded that 3 match points in the SFFD were most convenient. Fifty-five percent of users reported going to the SFFD on the March survey; 66% of this user group were successful in matching for a ride. In the July survey 72% of rider-users and 62% of driver-users were reported having successful matches to this destination.

The second most popular work destination was the Civic Center area in San Francisco. For this destination a greater percentage of rider-users were successful (27%) than driver-users (5%).

The March survey found that 84% of all users commuted to five destinations. Fifty-nine percent of rider-users cited successful matching at four match points; three in Mill Valley and one in Novato. Forty-nine percent of driver-users cited success at five match points; two in Mill Valley, one in Novato and two along the Ross Valley corridor.

Tam Junction in Mill Valley continued to serve as the most successful match point for Mill Valley members for the duration of the demonstration. In October, 29% of Mill Valley members reported Tam as the most convenient point. In March, 39% of the successful rider-users and 25% of driver-users matched at Tam. Informal conversations with residents indicated Tam Junction was, prior to CC promotions, and is a popular location for Mill Valley residents to meet for rides.

5.3.4 Work Times

Overall, 63% of the members (October survey) reported they had flexible work hours. This was only somewhat higher for driver-members (67%) than rider members (56%). Of those with flexible hours, 75% reported a half-hour range and 25% reported a one-hour or greater range in their start times; 58% reported a one-hour or greater range in the time they left work in the evening.

5.3.5 Non-Users

The following conclusions are drawn from the March 1980 survey findings.

1. Thirty percent of members are non-users (the lowest percent observed for all reference points).
2. A higher proportion of non-users were female--42% vs. 34% of all members.
3. Compared to users, non-users were more likely to commute by bus--35% vs. 24%; and, conversely, less likely to drive alone--39% vs. 50%.
4. A higher proportion of non-users were Novato residents--37% vs. 29% of all members.
5. Reasons for joining. The three top ranked reasons for joining were: Good idea (26%), Save gas/energy (25%), and Back-up mode (24%). In this last category, non-users differed considerably from users, with only 8% of the non-users viewing CC as a back-up mode.

5.4 SUMMARY STATEMENTS

Demand for project services, enrollment and usage, was impacted by the level of marketing activities. Enrollment was the greatest in May 1979 and March 1980, both periods of intense marketing. Enrollment was minimal in months when little or no marketing activities were implemented. This lack of project marketing was occasionally the result of problems with staff or confusion over program policies or management. (Project management is discussed in Section 4.1.) Enrollment was positively impacted by exogenous events such as the spring 1979 gas shortages and the two-day bus strike in July.

As the membership grew, members who tried to use CC were more likely to make a match. In June 1979, 17% of members who tried were successful in matching for a ride; in July 1980, 79% of the members who tried reported success.

Successful use of CC ridesharing appears to be linked to some critical mass of a community of users. Members from Mill Valley--13,000 population, 406 members, 1 major and 2 minor match points--were more successful matching for rides than members from Novato--36,000 population, 287 members, 3 or 4 minor match points. In March 1980, 37% of the members surveyed were from Mill Valley while 51% of the successful matches were made by Mill Valley members. Novato members accounted for 29% of the sample and 19% of the successes.

Success in matching is also linked to density of work destinations. The San Francisco financial district was the single most common work destination for all members (37%) and was the work destination for 66% of successful users (March survey sample). The less common work destinations accounted for lower success ratios. The second most common destination was reported by 15% of members, but only 48% of these members made successful matches.

6. ATTITUDES OF MEMBERS

6.1 THE REASONS MEMBERS JOINED

Members were surveyed as to why they joined Commuter Connection. Table 6-1 presents these findings for three groups of members.

TABLE 6-1.
MEMBERS' REASONS FOR JOINING*

	October	March	July
Save money	32%	23.5%	19%
Social, environmental	23	16	14
Save gas	18	28	16.6
As back up	17	13	19
Carpool benefits	10	11	10.5
Good idea	34	36	27

*Multiple answers allowed

The highest percentage of members (27 to 36%) cited joining because they thought Commuter Connection was a good idea. The greatest number of members citing "save gas," (28%), did so on a March 1980 survey, a time when the Bay Area was experiencing a gasoline shortage and price increases. Over time, between 19 and 32% cited "save money," 14 to 23% noted social or environmental reasons, 17 to 28% cited "save gas", 13 to 19% joined as a back up to their regular commute mode and 10 to 11% joined to obtain carpool benefits such as use of HOV lanes or to achieve a 3-person pool and free passage over the toll bridge.

Table 6-2 compares reasons joined for users--members who tried the system, versus non-users--members who had not tried.

The most noticeable differences between these two subgroups are in the categories "back-up mode" and "good idea." The data suggests

TABLE 6-2.

USERS VS. NON-USERS: REASONS FOR JOINING (MARCH 1980)

	<u>Users</u>	<u>Non-users</u>
Save money	21%	15%
Social, environ- mental	17	6
Save gas	19	11
As back up	14	30
Carpool benefits	12	7.5
Good idea	34	12.5

that non-users joined the system predominately for its appeal as a back up system (in case of a bus strike or gas shortage) and not because they thought it was a great idea or for social or environmental (reduce pollution, congestion, etc.) reasons.

Table 6-3 compares Mill Valley to Novato residents on the reasons they joined Commuter Connection. The major difference here is that Mill Valley residents, 50% solo drivers, more frequently joined to save money than did Novato residents, 75% bus riders.

TABLE 6-3.

MILL VALLEY VS. NOVATO: REASONS FOR JOINING (OCTOBER 1979)

	<u>Mill Valley</u>	<u>Novato</u>
Save money	46%	22%
Social/envIRON- mental	27	21
Save gas	24	14
As back up	14	19
Carpool benefits	11	9
Good idea	31	36

Table 6-4 compares the reasons joined for the driver and rider-member subgroups. Drivers more frequently join to save

TABLE 6-4.
RIDERS VS. DRIVERS: REASONS FOR JOINING (OCTOBER 1979)

	<u>Rider</u>	<u>Driver</u>
Save money	44%	34%
Social/environmental	23	25
Save gas	19	19
Back up	23	7
Carpool benefits	14	16
Good idea	39	31

money--44 vs. 34%, and less frequently because they view Commuter Connection as a back up system--7 vs. 23% for rider-members.

Focus group participants were also asked for their reason for joining Commuter Connection. A majority cited "save money" (7) and/or social reasons--likes to meet people, to help others or social/environmental reasons (7). Just 2 cited joining to use Commuter Connection as a back-up mode during a possible bus strike.

6.2 MEMBERS' REACTION TO REDESIGNED EQUIPMENT

In February 1980 a redesigned pass accompanied by revised instructions for matching "near any bus stop" was distributed to all 950 members. Other new pieces of the mailing were a CC logo/decal, and a suggested fare card. A detailed description of all items included in this mailing and reasons for the revisions are found in Chapter 3, Sections 3.4 and 3.7.

The survey conducted in March 1980 captured members' general response to the pass and revised operational policies. The

survey found that 79% of members responding to the question were positively impressed with the new pass; 67% found it more visible and/or readable. Table 6-5 presents members' response in March, one month following the mailing the new equipment.

TABLE 6-5.

MEMBER RESPONSE TO EQUIPMENT (MARCH 1980)

<u>SURVEY QUESTION</u>	<u>Yes</u>	<u>No</u>	<u>Other</u>
<u>Fare Card</u>			
Fares appropriate?	72%	19%	9%
Rider	78	11	
Driver	72	19	
Comfortable exchanging?	66	27	7
Rider	78	14	
Driver	66	29	
Posted in Car?	7	93	
<u>Decal</u>			
Put on car?	32	68	
Rider	24	76	
Driver	36	64	
<u>Pass</u>			
Positive Reaction	79	17	5
Rider	86	10	3
Driver	74	23	5

In summary, members responded positively to the redesigned equipment. It is interesting to note that though 66% of all respondents reported they felt comfortable about exchanging fares, only 13% of successful drivers-members had received either fare or money for the bridge toll. A higher number of successful rider-members, 40%, reported paying a fare. Few members had posted the fare card. The decal on the other hand was posted by 36% of driver-members.

6.3 THE FOCUS GROUP DISCUSSIONS

Commuter Connection hired a consultant trained in focus group design and leadership to conduct a set of two focus groups in October 1979, the 6th month of the demonstration, and a third focus group at the close of the demonstration, August 1980.

(A focus group, or group interview, is an accepted research technique for generating hypotheses when little is known. Its flexibility allows the leader, working from a list of topics or questions, to explore participants' attitudes.)

The October focus groups were designed to probe for members' attitudes regarding the program concept, and on two specific program elements, the registration process and the boarding pass. As a result of members' comments, project staff effectively redesigned the boarding pass. Project staff was far less effective in translating comments about the importance of community or the self help and grass roots appeal of the Commuter Connection concept into action items.

The October sessions were composed of members randomly selected from the Commuter Connection application files. The sample included non-users, users and one or two successful users; residents of Mill Valley and Novato; men and women; potential driver-and rider-members. The key findings of these October discussions are summarized below:

1. There is a strong sense of community among members: references to self help, grass roots, mutual help and save gas.
2. The attending members were enthusiastic about the CC concept, wishing to help and to see it succeed.
3. There is some confusion about how CC integrates with or is related to the Golden Gate Bus Transit System.
4. The registration process--member verification and photo--is an important security measure. It makes Commuter Con-nection considerably safer and more attractive than regular hitchhiking.
5. There is concern about enrolling more members, and about reliability and the return trip home.

6. The pass is viewed very positively; it symbolizes an authentic member, legalized or sanctioned hitchhiking. There were numerous suggestions for modifying the design.
7. Members attending suggested community meetings, and monthly newsletters.

The August focus group was primarily designed to probe for user member attitudes in areas of social sensitivity and on usage patterns.

The text of the Discussion Guide used for the August focus group follows.

The focus group conducted in August was more rigorously designed and analyzed than were the October ones. This additional effort was the direct result of an expanded evaluation budget that allowed the Bridge District to expend administrative funds, allocated but unused during the year, to hire a data collection consultant to complete the evaluation tasks not covered within either the project or evaluation budgets.*

The August focus group was quite productive in large part because it consisted of members who had successfully used Commuter Connection. Participants were randomly selected from a group of 60 members responding to the previous March telephone survey. All had reported successful matches on at least three occasions. Figure 6-1 illustrates the composition of this August group.

Sample of Participants in Focus Group - Actual

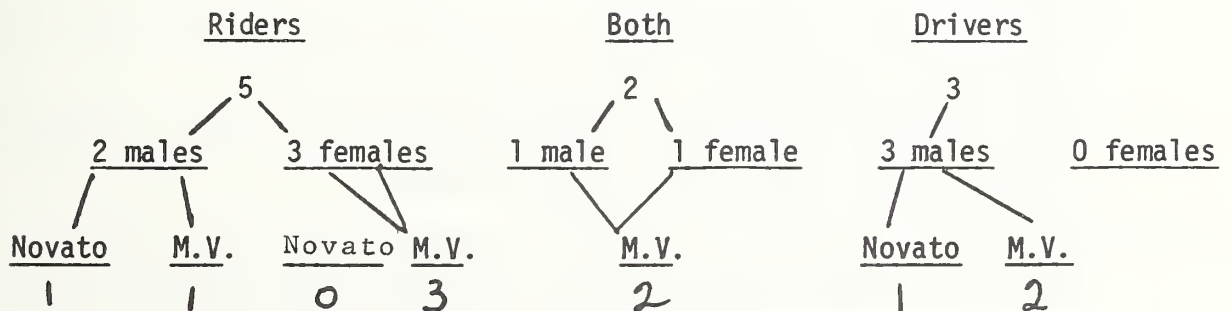


FIGURE 6-1. FOCUS GROUP SAMPLE

*Figure 6-2 is a copy of a list of questions used as a discussion guide for the August focus group. The list, prepared by the data collection consultant, ensured that all important points were covered. A comparable detailed list was not prepared for the October focus groups.

FIGURE 6-2. FOCUS GROUP DISCUSSION GUIDE

Introduction and Welcome- Moderator, Avon Mattison

1. What do you like about the C.C. Program? What are your primary reasons for participating? (go around table for each answer)
2. How do you use CC -
as a rider or driver?
regularly or as a back-up method
primarily as a commuting system
other - ie. for shopping or at night after commute hours?
why/why not? Safety as an issue here?
3. Speaking of safety, is this an issue when you use CC.
Do you perceive CC as a safe program.
4. What are the similarities and differences between hitchhiking and CC's ridesharing?
(Is this ridesharing theme communicated?) Does it imply safety?
5. Throughout this demonstration time, CC has had in-person registration as part of its security check. How would you feel about registration by mail, adding/incorporating an insurance policy for members? (Ellen will describe)
6. Now lets talk about how reliable C.C. is for you. How often do you use CC and is this always at certain times, same day of the week, when you are going to the same place. (reliability, general attitudes)

Having successfully used C.C. how do you feel it compares with your alternate method of travel in terms of time, direct route, where you get dropped off.

How do you feel about standing on the street waiting for a ride with your passport?

When you use C.C. do you always try to match at the same place and how do riders get to their match points. (delete if no time)

How long do most of you wait before getting a ride/rider or before you go on to your alternate mode. Does it take longer to use C.C. than your alternate mode? (time factor and convenience)

7. What are your feelings and expectations about exchanging fares (theory vs practice)
Who actually brings up the subject? Who should? What usually happens?
Why is it awkward? What would change that to being a comfortable policy?
8. Are you interested in setting up a semi-regular ridesharing system, along the lines of a carpool or in a casual, day-to-day system.
9. When you haven't been successful in matching, could you comment on the reason you think you haven't been successful. Specifics re: social issues (conversation problems, smoking)

FIGURE 6-2. FOCUS GROUP DISCUSSION GUIDE Cont.

10. Since this is the end of the demonstration program, would people be willing to pay an annual \$10,00 membership fee to participate in the program and what services would you like for this fee. (usage important?) What value do you now receive from C.C.?
11. What are the positive and negative aspects about making C.C. a primary commute mode?

(Review - open discussion here, incorporating all prior points and allowing new points to surface)

12. As a final question, you have an opportunity to co-create with C.C. a more effective program. What ideas do you have that would make the program work more effectively for you and for the community.

Thank - you

Unfortunately, some of the issues covered in the discussion guide were not actually discussed. These included a complete discussion of usage patterns--same day of week?, certain time of morning or evening?, and a comparison of members' regular commute mode regarding trip times, costs, and routing.

6.4 MEMBER RESPONSE TO OPERATIONAL PROGRAM ELEMENTS

The focus group discussions were quite productive in providing insight into how this casual ridesharing system worked for using members. The following text presents key comments and gives the reader a sense of users' likes, dislikes and concerns. The discussion was strongest and involved the greatest participation regarding aspects of safety.

All participants expressed positive attitudes about the concept of Commuter Connection as an alternate mode of transportation. A majority gave multiple reasons for joining the program. These responses were varied and included a range of comments similar to those expressed in the telephone surveys--inexpensive form of travel, cost savings, social and environmental reasons (see Section 6.1).

6.4.1 Wait Times

Several members commented that they waited up to 15 minutes; they were unlikely to let a bus go by in order to wait for a possible Commuter Connection driver to come by.

6.4.2 Trip Diversion/Deviation

A driver-member looking for riders reported taking a circuitous route in the morning along the feeder routes. Drivers reported feeling obligated to go out of their way--deviate their commute trip--to get riders close to their destination.

6.4.3 The Return Trip

Drivers had trouble finding people due to congestion and chaos at 4-7 PM in San Francisco's financial district. Other comments were that there should be one specified spot for matching along the route to the Golden Gate Bridge; people are tired at the end of the day and don't really want to pick up a rider; everyone's in a hurry to get home; also, home trip ends are more diverse, harder to match for.

"I (a lady) don't like to take the ride home because I feel that in the morning people have to be at work--going home it's different, they can take a short cut; it's open to other things happening."

6.4.4 Commuter Connection as Primary Commute Mode

General comments were made that Commuter Connection has value as a secondary mode; it sets up a network of folk who travel along the same routes to work.

"If a bus comes by, take it. Unlikely to wait for a Commuter Connection driver to come by; therefore, Commuter Connection would never be a primary mode for this respondent."

For some, CC could turn into a "semi-carpool situation" where a couple of days a week the same rider-driver match is made. This retains commute time flexibility--attractive to most who commented--for, primarily, the driver.

A number of drivers commented that they drove their cars regularly but found it difficult or impossible to match because of the lack of available riders.

6.5 MEMBER ATTITUDES AND RESPONSE TO SOCIAL PROGRAM ELEMENTS

6.5.1 Safety or Security

Group discussion was extensive and involved the greatest participation regarding how secure or safe members felt about

using Commuter Connection. The general attitude of focus group participants was that the Commuter Connection program was a safe program and there were few fears about using the program as either a rider or a driver.

"...it's kind of fun to have people doubled up and there's no fear. It's a good situation, carpooling is fun."

One of the reasons for lack of fear while using the program was that occasionally the same riders and drivers match with each other, get to know each other and their pattern becomes one of informal carpooling. This minimizes the issue of safety.

"I think that after awhile there are some regular people that you connect with and so that would eliminate a lot of people. (Matching with different riders each day). During a particular time slot you're bound to run into the same people."

Commuter Connection was noted as both similar--you hold out a sign, and different from hitchhiking--it's not anytime, there are definite destinations and persons are employed. Many members seem to have developed their own means of security check.

"Employed people make certain assumptions, especially if you are a commuter."

"Going from Marin to San Francisco there is no worry about safety--everyone in Marin is nice."

"Safety isn't an issue in the summer time--find someone with a coat and tie or a well dressed woman..."

Several noted that they do not pick up or ride with any but another CC member. One member noted that she had taken rides from non-members, but did not feel as comfortable doing so.

"...this is an unique environment in Marin, safety factors are extremely important, but Marin has another factor--we have the suits--I would feel different in Oakland or Fremont..."

In-person registration was viewed as an extremely important safety factor. Participants expressed strong negative feelings towards a registration by mail proposal because they said it would

decrease the personal aspects of the program and decrease the safety features which the present registration methods ensure.

"I think the personal touch is what it's all about."

This member's main comments focussed on increased marketing and selling people on the idea of saving energy and gas etc. People need more convincing that the program is important. He felt this is what the program should be concentrating on rather than easier methods of registration.

Several members commented that the reason more people did not register for the program or use it on a regular basis related more to a lack of marketing, i.e., promoting understanding of Commuter Connection benefits and how it works, rather than a complicated registration procedure. The discussion focussed on increased education about ridesharing in general, market saturation and hard work.

"I feel you've got to get out there and do it rather than trying to do it through the mail. It's hard work. You've got to beat on doors."

"My point is that people are going to hesitate when they see literature in the mail, with regards to whether they will accept this program."

When asked whether registration by mail would ensure the level of safety provided by the present procedures, the unanimous response was--NO--because of lack of picture passport and registration method. On the other hand, several members responded that they never look at the ID picture to check it with the person holding up the pass.

6.5.2 Standing Out There, Holding a Sign

This part of the discussion, focussing on how people felt about using the system, elicited such words as "rejection," "cheapskate," "embarrassed," and "the sign makes me feel like a member of a special group."

"I haven't decided if I like standing out there. I feel kind of funny standing out there with a sign with people thinking I'm a cheap skate."

"It's the immediate rejection. I know it sounds very naive--but as a rider its a very strong psychological factor when 5 cars go by and you haven't gotten a ride--5 people have said you are possibly a rapist. It's very embarrassing but its there, especially when you are standing at a bus stop and there are 20 people waiting for a bus and you have an audience for your rejection.

On the other hand, two members commented that holding out a sign was ok and made them feel "part of a group with a purpose".

6.5.3 Exchanging Money--Fares

In general, driver-members reported no attempts to collect fares.

"I've turned down fares."

"We won't accept money."

"Why should I charge for gas that the company is going to pay anyway?" (he drives a company car)

"It would be an insult." (to ask for money)

"I'm driving a car that I would be driving regardless."

One man was "outraged" at the suggested fare schedule distributed to members; another was angry because he thought the purpose of CC was to improve mass transportation--and that the cost was that of the driver, not rider.

Most riders felt they should offer to pay the bridge toll or a fare.

"No one has taken the money I have offered."

"I couldn't really decide (to offer a fare or not)--I was thinking about it the whole time--I didn't know how to bring it up."

One man raised the issue of when you start discussing shared costs or fees you are then into carpooling, not flexible ridesharing.

6.5.4 Social Etiquette

Part of the group discussion focussed on etiquette between driver and rider during the shared ride. Most felt that the rider was under obligation to be polite, that he or she owed a courtesy to the driver.

One woman recalled an unpleasant rider:

"She doesn't say one rotten word--I wouldn't pick up this woman, even though she's a Commuter Connector--(she acts as if) it's almost as though you owe it" (since we're both members).

"You can always pick up vibes from the driver."

"I feel you're totally obligated to that person for the ride. And I'm willing to go so far as to either shut up, or talk my head off as a receipt for the ride, if you want to call it that."

6.5.5 Personal Contact

A number of members commented on the importance of the "personal touch". This was tied to the in-person registration--versus a mail-in registration process. The personal touch implied more safety of security in using the system.

"I felt better buying it (membership) at Alpha Beta--you know on a cardboard table with a couple of pieces of paper and a polaroid camera."

6.6 SUMMARY STATEMENTS

The focus group discussions served to confirm survey findings that people join Commuter Connection because they perceive it as a good idea; to validate the importance of in-person registration as a security measure; and, to support the hypothesis that CC has value as a back-up or secondary, not primary, commute mode. The discussions provided insight into members' attitudes about flexible ridesharing; fares make rider-members feel better but are rarely accepted and may offend some driver-members; riders

take their cue from drivers on social etiquette, a seemingly minor concern, during the shared ride; matching on the return trip is problematic because riders feel uncertain and concerned about possible trip deviations and drivers feel obligated to take riders to dispersed destinations, i.e., to their homes.

The discussions suggested that the most sensitive behavioral aspect of this ridesharing concept is fear of not making the match and the feelings of rejection and embarrassment this engenders. Finally, the discussion suggested that the appeal of the program was closely related to a sense of community and self-help, and to the personal hands-on registration procedure.

The findings were a little confusing on the issue of security. Though all discussants supported in-person registration, most discussants claimed they did not check the photograph on the passports to verify. This finding could imply that in-person registration, not the photograph itself, is the critical factor for ensuring security.

7. DEMONSTRATION FINDINGS AND CONCLUSIONS

This program evaluation concludes that Commuter Connection was a successful demonstration project in that it answered many of the evaluation questions and raised other questions or issues related to the workability of a flexible registered ridesharing program.

Based on the demonstration's findings, the Commuter Connection concept proved to be an expensive public program usable by a small group of commuters--.7% of all transbay commuters--in a commute corridor where attractive commute alternatives are available.*

This ridesharing concept seems to have the greatest potential as a commuter identification system for use under emergency conditions such as a prolonged transit strike or gasoline shortage. It may also hold potential as a supplement to overcrowded bus transit systems or as a strategy for filling occasional vacancies in vanpools and carpools.

The concept may prove transferable to other communities of users under certain conditions not limited to but including:

1. An urbanized service area,
2. Major traffic corridor(s),
3. Bus service available as back up,
4. A history of no crimes related to hitchhiking,
5. Existing experience with carpooling.

*Some 263 persons of 39,806 transbay commuters reported successfully matching over a 14-month period.

7.1 EVALUATION ISSUES

The Commuter Connection demonstration successfully answered 7 of the 8 major questions posed in the evaluation plan. It found that:

1. There are no institutional constraints to implementing a registered hitchhiking program in California. Normal automobile liability policies provide the necessary coverage for drivers, hitchhiking is legal and because the program brokers but does not operate transportation services, Commuter Connection was not subject to regulation by the PUC.
2. The insurance agencies (see page 15) ruled that, in case of a loss sustained by driver or rider, Commuter Connection could not be found liable since it was not operating vehicles.

Insurance coverage proved to be adequate since no claims were made against the project. Additionally, the issue of liability or proper insurance coverage was not raised by members participating in the several focus group discussions.

3. The demonstration was promoted in two communities in the Golden Gate corridor. The Golden Gate corridor proved to be a reasonable demonstration site for this ridesharing concept for the following reasons:
 - a. The density of demand for commute service to the San Francisco financial district from Marin, primarily, and Sonoma Counties is high.
 - b. The District's bus system provides a reliable backup mode for CC rider-members, a condition evaluated as key to program operations.
 - c. The bridge acts as a funnel for all commuters traveling north to south into San Francisco. The "no-toll" policy for carpools of three or more served as a driver-member incentive to pick up rider-members.
 - d. Commuters in the corridor are familiar with alternatives to the solo automobile. Carpooling or sharing rides is a very acceptable commute here.

Of the two local market areas, Mill Valley possesses characteristics most conducive to program operations. Mill Valley is a stable, relatively small community with a strong sense of community identity. Physically, the street patterns, traffic flows and limited number of major intersections were conducive to operations. Tam junction, a popular match point for Mill Valley members, was a preexisting local connecting spot for bus riders and carpoolers.

4. The in-person registration process effectively screened prospective users. The process addressed members concern with system security by assuring the "authenticity" of all commuters displaying a Commuter Connection pass.
5. The suggested fare policy did not prove to have much appeal to driver-members; yet, rider-members believed the driver should be allowed a fare as compensation for providing the ride. Though most CC members found the suggested fares appropriate, few drivers reported accepting and many riders reported driver refusal to accept fares. Both drivers and riders reported feeling awkward about the exchange of money or fares.
6. The redesigned boarding pass was easily visible and understood. Member's responded very favorably to the redesigned pass. Almost all successful rider-members reported displaying their pass, but just one-third of successful drivers reported using the pass when picking up the rider-member.
7. The organizational approach of the Commuter Connection project--a nonprofit corporation with its own board of directors, indirectly funded by UMTA through a public agency with its board of directors--generally constrained effective project implementation and growth.

The nonprofit status per se did not impact project results; however, the existence of two policy boards and the lack of standard project planning and management procedures limited the demonstration's progress. Established lines of authority, regularized planning and management procedures could have produced more complete demonstration findings.

7.2 EVALUATION ISSUES NOT ANSWERED

The demonstration was unable to answer the question, "What is the critical mass required to support this form of ridesharing?" It did find that some massing of commuters in a given community results in more success and more frequent use of the system. (The project was more successfully used by commuters in Mill Valley where membership accounted for 3% of the population as opposed to those in Novato where membership accounted for less than 1%). Also, the opportunity for successful participation is optimized by limiting the number of routes along which members match for rides in any given community.

The demonstration attempted but was unable to address questions related to the system's impact on users' travel times, distances or costs, the system wait times or the viability of Commuter Connection as a feeder system to bus transit. Available and accurate data were too minimal to allow statistically valid analysis of travel times, distances, or costs. An informal field survey of members' wait times at three morning match points was conducted by project staff. Though 45 of the 48 rider-members were observed successfully matching for a ride, wait times were not documented. Finally, there were less than ten members who reported using Commuter Connection to connect with or feed to bus transportation.

The demonstration found that commuters joined Commuter Connection because it was a good idea, for economic reasons and as a back up to their regular commute modes. The demonstration did not answer the questions, "Why do potential users NOT join?" or "What would encourage potential users to join?"

7.3 ISSUES RAISED

The demonstration served to highlight a number of issues critical to the successful operations of a flexible, registered

rideshairng program and to identify issue areas in need of further study. A summary of these issues follows.

7.3.1 The Return Trip

For Commuter Connection, the issue of safely integrating convenient match points with San Francisco's peak hour traffic and street patterns posed an operational constraint to matching on the return home trip. This issue could prove less problematic in other locales depending upon transit availability, land use and traffic patterns.

This program element was identified as a major operational problem by members surveyed in October 1979. However it received little project attention until May 1980 when, at the direction of a District board member, project staff met with staff of the San Francisco Department of Public Works. A plan was developed to identify eight intersections located in the San Francisco CBD as Commuter Connection match points by painting the curbs and posting signs. A public hearing on the plan was held on August 22, 1980, at which time no public objections were raised. Implementation of these plans became irrelevant when one week later the Commuter Connection demonstration terminated.

7.3.2 The Registration Process

The registration process evolved into a critical program element that served several functions: it verified member identification, it stimulated potential members to enroll, and it was a strategy for responding to commute-related crises, such as the July bus strike and the spring 1979 fuel shortage. The project was unable to identify which registration sites or combination of sites and promotional activities were most productive, or why once productive sites became unproductive in terms of the number of commuters enrolling each hour.

7.3.3 Program Scale

The appropriate scale for a casual carpooling program appears to be some identifiable "community of users." This program scale allows users to feel more secure about matching with others who share a common identity based on residence or commute purpose. A community of users may be residents of a single small city; commuters along a traffic corridor or to a large local employer; students; or residents of a large residential complex.

7.3.4 Marketing Approach

The question to be addressed regarding program marketing is one of emphasis: what is the most appropriate approach or combination of approaches to encourage enrollment and use of a flexible ridesharing program by a given community of users?

The Commuter Connection project pursued a marketing approach that focused on promotional activities and media coverage. It focused more on achieving media coverage than on working in the field to support members' use of the system. There was little field work such as hosting match points to speak with commuters or traveling along the home-end commute routes to observe what was taking place. Also, aside from a few meetings with city officials and two or three presentations to civic groups--all of which occurred in the first few months of operations--the project did not seek to generate community partners in promoting program use. Members recurring and frequent reference to "a sense of community" suggests that working in partnership with community organizations or city departments might be the appropriate focus for marketing the program.

7.3.5 Institutional Housing

The questions raised by the demonstration in this issue area are: "Is flexible ridesharing a transportation system best planned,

promoted and operated by a transportation--transit or ride-sharing-- agency? Or, Is it a community service and best operated as part of city government or by a local organization such as the Chamber of Commerce? What are possible advantages to public or private sponsorship?

The primary benefit derived by this project from District sponsorship was program legitimacy. The Bridge District is a stable recognized public transportation agency in existence since 1935 and operating buses since 1973. It negotiated with the transit union to amend the 13(c) agreement covering the vanpool project to also cover the Commuter Connection project. Additionally, the District's staff served as advisor to the project in matters of policy and finance, and the District's toll takers distributed project brochures on four occasions. However, the project did not have the benefit of learning from the experience of transportation engineers and planners simply because it was associated with a transportation agency.

7.3.6 Program Potential as a Backup Commute System

What is the program's potential as a backup commuter ride matching system under emergency conditions?

The project's executive director and Board of Directors advocated promoting Commuter Connection as a standby commute plan available in case of an extreme gasoline shortage or mass transit strike. The standby plan contained a number of questionable assumptions. Further study would be needed to answer questions related to the level of effort and efficient registration procedures or appropriate institutional responsibility required to register massive numbers of commuters.

APPENDIX

REPORT OF NEW TECHNOLOGY

The work performed under this contract, while not leading to any significant inventions, discoveries, or innovations, has made use of state-of-the-art methodologies to complete an analysis of findings available on the implementation and operation of the demonstration project. These findings will be useful to other communities throughout the United States in the planning and design of improved public transportation services.

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