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The Newport News, Virginia, Easyride Transportation Brokerage Demonstration Project

Final Report
September 1982

UMTA/TSC Project Evaluation Series
Service and Management Demonstrations Program

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7. Author's
Edward J. Barber, Daniel W. Wagner, Raymond H. Ellis, and Mark E. Hallenbeck

9. Performing Organization Name and Address
Peat, Marwick, Mitchell & Co.*
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16. Abstract

The Easyride transportation brokerage demonstration in Newport News and Hampton, Virginia was initiated in July 1978 to assess the effectiveness of transportation brokerage in achieving higher vehicle occupancies. Easyride is a service of the Peninsula Transportation District Commission, the transit authority serving the cities mentioned above. Easyride promotes that form of ridesharing which best serves a site's employee's needs by collecting trip data at employment sites and providing matchlist and ridesharing promotional materials. Easyride provides special transportation service for the handicapped through Handi-Ride, a demand-responsive transportation service involving both Easyride-provided service as well as contract services provided by a local taxi company. Easyride also brokers special transportation services through a 16(b)(2) procurement review program and a vehicle leasing program available to local social service agencies.

Easyride's experience with the rates of matchlist usage and carpool formation demonstrate the need for assistance to employers with follow-up promotions to matchlist distribution. Easyride's Handi-Ride program demonstrates that this type of service can be provided effectively through a combination of user-side subsidies and publically operated service. A 16(b)(2) procurement review policy and a vehicle leasing program for social service agencies can be useful elements in a comprehensive special services transportation coordination effort.

The most significant demonstration finding is that a brokerage program offers a transit authority opportunities to provide alternatives to conventional fixed-route-and-schedule bus service. Brokerage enables the transit authority to provide service extensions in areas and markets unsuited to fixed-route transit and, where appropriate, to substitute alternative service for existing bus service which is not cost-effective.

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16. Abstract

The Easyride Transportation Brokerage demonstration project of Newport News and Hampton, Virginia, began in July 1978. It was initiated to assess the effectiveness of transportation brokerage in order to achieve higher vehicle occupancies. This report is based on project events occurring between July 1978 and June 1981. Easyride was one of the first experiments in area-wide brokering of public and private transportation services. It operates as a service of the Peninsula Transportation District Commission, which is the transit authority that serves Newport News and Hampton. Easyride promotes that form of ridesharing which best serves a site's employee's needs by collecting trip data at employment sites and providing matchlist and ridesharing promotional materials. Easyride provides special transportation service for the handicapped through Handi-Ride, a demand-responsive transportation service involving both Easyride-provided service as well as contract services provided by a local taxi company. Easyride also brokers special transportation services through a 16(b)(2) procurement review program and a vehicle leasing program available to local social service agencies. Its experience with the rates of matchlist usage and carpool formation demonstrate the need for assistance to employers with follow-up promotions to matchlist distribution. Easyride's Handi-Ride program demonstrates that this type of service can be provided effectively through a combination of user-side subsidies and publicly operated service. A 16(b)(2) procurement review policy and a vehicle leasing program for social service agencies can be useful elements in a comprehensive special services transportation coordination effort. The most significant demonstration finding is that a brokerage program offers a transit authority the opportunities to provide alternatives to conventional fixed-route-and-schedule bus service and enables the transit authority to provide extensions in areas and markets unsuited to fixed-route transit and, where appropriate, to substitute alternative service for existing bus service which is not cost-effective.

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PREFACE

This document was prepared by Peat, Marwick, Mitchell & Co., under Task Directive DOT-TSC-1758-7, as part of the Service and Management Demonstration Program sponsored by the Urban Mass Transportation Administration's (UMTA) Office of Transportation Management and Administration. It represents the final evaluation of the Easyride brokerage demonstration of the Peninsula Transportation District Commission, the transit authority serving Newport News and Hampton, Virginia. The Easyride demonstration explored several brokerage techniques aimed at achieving higher vehicle occupancies and coordinating special services transportation. This report is based on project events occurring between July 1978 and June 1981.

The principal authors of the report were Edward Barber, Peat Marwick project manager, and Daniel Wagner. Mark Hallenbeck provided technical assistance in analyzing the evaluation survey data, and Raymond Ellis provided overall project guidance and review.

Peat Marwick acknowledges and thanks the Easyride Project Manager, Viktoria Fox, and the Easyride staff of Marlene Sterling and Charity Crawford for their cooperation and support throughout the evaluation.

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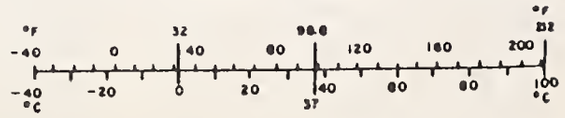
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.3	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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EXECUTIVE SUMMARY

PROJECT BACKGROUND

The Easyride transportation brokerage project of Newport News and Hampton, Virginia, began in July 1978. It was one of the first experiments in areawide brokering of public and private transportation services. Transportation brokerage is an evolving concept, and Easyride's objective is to improve existing methods (or create new ones) for matching the supply of and demand for transportation. Easyride operates as a service of the Peninsula Transportation District Commission (PTDC), the transit authority serving Newport News and Hampton. The Urban Mass Transportation Administration (UMTA) funded Easyride through its Service and Methods Demonstration (SMD) Program. Before Easyride initiated its brokerage services, the PTDC, whose bus operation is called Pentran, only provided transit service to its transportation district. Federal support of the Easyride project is scheduled to end in June 1982.

The PTDC originally investigated transportation alternatives as a response to rising transit operating deficits. The PTDC, believing that the private sector had a role to play in providing needed public transportation services, searched for a means of utilizing them. The Easyride program was initiated by the PTDC as an approach to achieve this objective.

SITE DESCRIPTION

Newport News and Hampton are located in the southeast corner of Virginia near the major industrial and naval facilities at Hampton Roads. The Newport News-Hampton standard metropolitan statistical area (SMSA) population was approximately 350,000 in 1975.

The area work force, estimated at about 110,000 in 1980, is forecast to grow to 180,000 by the year 2000. Five major employers provide about 50,000 jobs, or almost half of total area employment. Most of the employment sites are widely separated--there is no major clustering of employment in the downtown area. The Newport News Shipyard, with 20,000 employees, is located on the edge of the Newport News downtown area and is a major traffic generator. Shift changes cause traffic congestion in the vicinity of the Shipyard.

In 1975, about 93 percent of the vehicular work trips in the Newport News-Hampton SMSA were by private automobile (or light duty truck). Transit's share of the SMSA work-trip market has been declining--from 9.0 percent in 1970 to 5.2 percent in 1975. The area has a higher level of ridesharing than the U.S. average. In 1975, the level of Peninsula ridesharing averaged 27 percent of vehicular work trips as compared with the U.S. average of 21 percent.

EASYRIDE OBJECTIVES

When Easyride was initiated, the PTDC articulated numerous goals and objectives for the program. Easyride's task was to design and implement a program to achieve these goals.

Easyride focused on a limited number of these PTDC objectives during the period covered by the evaluation. The objectives Easyride sought to achieve were to:

- reduce single-occupant auto use for work trips, particularly in major travel corridors;
- improve area coverage of ridesharing opportunities without increasing public supply (e.g., extending fixed-route service);
- coordinate transportation services of social service agencies;
- improve the image of public transit on the Peninsula; and
- prove the feasibility of using paratransit to provide public transportation services.

FACTORS INFLUENCING EASYRIDE'S DEVELOPMENT

There were several important institutional and political factors which influenced Easyride's development. One such influence was the first director's previous work experience with the Computeride program in Baltimore, Maryland. He adopted a strategy of employer-based data collection and matchlist preparation that was similar to that used by Computeride. This approach was continued by the second Director who assumed the position early in the program's second year.

Another factor was Easyride's role as a service of the PTDC. Initially, because of the perception that Easyride posed a threat to Pentran bus service, relations between the Easyride Director and the Pentran General Manager were strained. Relations improved, however, and Easyride is now perceived to provide a complementary service to transit operations. Easyride has used its survey data to recommend changes in Pentran service in efforts to improve bus productivity. Easyride and Pentran have also jointly sponsored marketing activities.

The 13(c) labor agreement was an important influence on Easyride development. The experience of neighboring Tidewater Transportation District Commission (TTDC) with 13(c) negotiations caused the PTDC to structure Easyride development into two phases: a planning and a subsequent implementation phase. Easyride implementation was structured in this way to allow service planning to occur while 13(c) negotiations were taking place.

The 1979 energy shortage was another important influence on Easyride activities. Easyride operations began during this period, and the energy shortage generated enthusiasm for ridesharing by both employers and employees. In addition, Easyride used the energy shortage to publicize its program. In response to the energy shortage, the PTDC directed Easyride to develop an energy emergency transportation plan.

Two factors influenced Easyride's vanpool operations: UMTA's rejection of grant requests for van purchases, and a joint service agreement between the PTDC and TTDC. UMTA denied Easyride's application for grant funds for van purchases because it did not want Easyride to become a lessor of vans for vanpools. This would have introduced a second public lessor of vans to the area and would have duplicated nearby TTDC's van leasing program.

The Joint Service Agreement between the PTDC and the TTDC provided the basis for a vanpool marketing and service agreement between the authorities. Under the vanpool agreement, Easyride markets TTDC vans to Peninsula commuters and TTDC leases vans directly to Peninsula commuters. As part of the agreement, TTDC vans can be maintained at Pentran maintenance facilities. This arrangement makes van maintenance more convenient for Peninsula residents and workers.

Staff turnover affected the Easyride project throughout the three-year evaluation period. At varying times the positions of the Director, Planner, Special Services Administrator, and Administrative Assistant were vacated and new persons were

hired. This turnover did not disrupt Easyride ridesharing services. It did, however, limit Easyride special services transportation brokerage activities. Easyride gave ridesharing services first priority; special services transportation activities were not pursued during periods of staff transition.

Another factor influencing Easyride special services brokerage activities was PTDC transfer of Handi-Ride management from Pentran to Easyride. Handi-Ride is a demand-responsive transportation service for the handicapped, operated in compliance with U.S. Department of Tranportation (DOT) service to the handicapped requirements (Section 504 regulations). The demands of Handi-Ride management focused Easyride's special services brokerage activities on managing the Handi-Ride service rather than investigating alternative brokerage techniques.

Another factor affecting Easyride special services brokerage activities was Virginia DOT acceptance of Easyride grant requests for three lift-equipped vans for use in brokering to social services agencies. The vans focused Easyride efforts in brokering transportation services on leasing PTDC vans to social service agencies. Easyride later received UMTA funds for four additional vans to use in this program.

EASYRIDE OPERATIONS

Easyride promotes ridesharing through four major activities:

- employer-based ridesharing using selected employees as team leaders and computer matching of potential ridesharers;
- community-at-large ridesharing using a phone-in matching and information service and an annual ridesharing promotion;
- a vanpool marketing and maintenance program for TTDC vans, and the provision of back-up vans; and
- legislative activities which involve monitoring and supporting the removal of legal and institutional barriers to ridesharing.

An activity related to Easyride's employer-based activities is Easyride assistance in Pentran service planning. Easyride analyzes employment site data for opportunities for Pentran bus service modification which may improve bus system productivity.

Easyride's special services transportation brokering entails:

- managing Handi-Ride, a transportation service for the handicapped;
- leasing PTDC vehicles to Peninsula social service agencies; and
- reviewing 16(b)(2) vehicle applications to assess available alternatives to vehicle purchase.

EASYRIDE EFFECTS ON RIDESHARING BEHAVIOR

Although Easyride promoted all ridesharing modes, the greatest effects of the project have been in fostering carpool formation. Results of a random survey of area employees who completed Easyride questionnaires indicated ridesharers' portion of total work trips increased between June 1979 and March 1982 from 25.1 percent to 32.8 percent. Over a third of the persons transferring from solo driving to ridesharing cited Easyride as contributing to their decision. It was not possible to determine from the survey whether the solo drivers influenced by Easyride would have become ridesharers without Easyride's assistance.

Based on survey results, it is estimated that out of 11,400 persons who completed Easyride questionnaires, Easyride influenced approximately 600 to join carpools. Easyride also assisted in the formation of several vanpools; most of the vanpools operating on the Peninsula, however, were started through informal contacts initiated by drivers. In addition, Easyride assisted approximately 210 former ridesharers to form new carpools or join other already operating pools, thereby helping to preserve existing shared ride travel.

These survey results indicated that as a result of Easyride's influence, of the persons who completed questionnaires and previously drove alone, 5 percent now belong to carpools. Of these individuals who formerly carpooled, 2 percent formed new or joined existing pools with Easyride assistance. These results are comparable to those of the Knoxville brokerage demonstration. They are, however, lower than those of the Minneapolis brokerage demonstration (whose results were higher than those of most ridesharing programs).

Factors that may have limited the effects of Easyride on ridesharing behavior include:

- the dispersed nature of employers on the Peninsula that limited the available pool of potential ridesharers at each employment site;
- the low number of ridesharing incentives on the Peninsula because of free, abundant parking (except at the Shipyard), and no exclusive highway facility rights-of-way for pools;
- the current high rate of ridesharing on the Peninsula which may indicate that the potential for ridesharing had already been reached; and
- the relatively high incomes of persons completing Easyride questionnaires may have caused some to believe ridesharing did not provide an adequate incentive when ridesharing was a major inconvenience.

BROKERAGE ECONOMICS

Based on the evaluation surveys, it is estimated that, between June 1979 and March 1971, about 639 people started sharing rides as a result of Easyride. As of March 1981, total Easyride project costs were estimated to have been $322,622 (this estimate excludes expenditures for Handi-Ride). Total costs include initial start-up costs of $166,991; Fiscal 1980 operating costs of $88,912; and prorated Fiscal 1981 operating costs of $69,520. These costs were prorated to coincide with the evaluation survey period. The start-up costs include the costs incurred during the planning grant as well as capital expenditures that were made during Fiscal 1980 and 1981.

The estimated total program costs per new ridesharer were $509 ($322,622 ÷ 639 = $505). Total operating costs per new ridesharer were $248 ($88,912 + $69,520 ÷ 639 = $248).

ACHIEVEMENT OF LOCAL GOALS

An important evaluation criterion for brokerage programs is whether the program has achieved local goals. Discussions with PTDC members indicated that the PTDC perceived Easyride to be successful in accomplishing the objectives of its "first phase." These objectives were to identify Peninsula transportation needs

and transportation supply. They perceived Easyride's next objective as assisting the PTDC in determining which Peninsula transportation needs are best met by public bus service, and which are best met by alternative forms of transportation (i.e., ridesharing).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions on Easyride Ridesharing Promotional Procedures

Easyride's employer-based ridesharing promotion focused on the matchlist generation process. The experience of Easyride (and other brokers) with low rates of matchlist usage, however, demonstrates the need for extensive matchlist distribution follow-up procedures. Easyride assistance to employers in developing and implementing follow-up promotions to matchlist distribution may have increased the level of matchlist usage and ridesharing.

Easyride procedures for updating its matchlist request files need to be assessed. Easyride updates these files by resurveying employment sites and then producing matchlists from the most recent request forms. This process is somewhat cumbersome as it collects the same data repeatedly from an individual whose schedule and work trip have not changed. It also diminishes the pool of commuters available for matching, as resurveys at employment sites have produced consistently lower matchlist request rates. A possible alternative arrangement is a mechanism whereby the employer maintains its master list and transmits this information to the broker to use to update its files. New matchlists could be generated from the updated files without a resurvey.

Special Services Transportation Brokerage

Easyride's Handi-Ride program was successful in expanding service to a population segment previously unserved by public transportation. Handi-Ride's consistently high ridership demonstrates a need for such a service on the Peninsula.

Easyride's use of a taxi operator as part of the Handi-Ride program to supplement the Easyride-provided service successfully integrated public and private operators to provide service. The supplemental taxi service enabled Easyride to use its own drivers only at times when there were enough trips to make it

worthwhile. This arrangement optimized the utilization of Handi-Ride staff and vehicles and helped to keep program costs down.

A comparison of the costs of the two types of Handi-Ride service revealed that the Easyride (publicly provided) service cost per passenger trip was lower than that of the taxi company service. Several factors, however, contributed to the higher taxi company costs. These factors included scheduling arrangements which limited opportunities for shared-ride taxi trips and the inclusion of capital and overhead costs in taxi costs. (Capital and overhead costs were not included in the cost estimates of the publicly provided service.) It is unclear whether, if the cost differences resulting from these factors were accounted for, taxi service costs would still be higher. It may be that the peak use of public service combined with the flexibility of taxi service, as Easyride has done, is more cost-effective than wholly publicly or privately provided service.

Easyride's experience with its 16(b)(2) procurement policy indicated that similar review programs can be effective coordination tools if the broker can offer alternatives to 16(b)(2) vehicle purchase. Easyride undoubtedly was aided in its implementation of this policy by Virginia's reliance on Easyride's recommendations. Brokers considering similar programs should secure state cooperation.

All elements of the 16(b)(2) program did not prove as fruitful. Title (ownership) transfer of new 16(b)(2) vehicles from social service agencies to the broker, a central component of Easyride's program, did not prove as useful as did offering alternatives. Vehicle ownership is not necessary for brokering vehicle use. Offers to assume ownership may appear threatening to an agency, thereby creating distrust and undermining future opportunities for coordinating vehicle use.

A central public leasing program, such as Easyride's, may prove useful in coordinating special transportation services--especially when the leasing agency is the same as the coordinating agency. Leasing vehicles in and of itself will not ensure that special transportation services are coordinated. It does, however, provide the coordinating agency with a certain amount of leverage.

Additional Brokerage Issues

Easyride used its limited contacts with private operators to obtain private bus operator service. Easyride referred two school groups to private bus companies which now provide service

to these groups. Easyride also notified a private bus operator of a canceled Pentran run to the Newport News Shipyard and this operator now provides the service. Overall, Easyride had limited success in obtaining private bus operator participation in a survey of private bus operator markets and services. Several factors may have motivated private operators' lack of cooperation. The most important of these was that operators may not have perceived the result of cooperation with Easyride to be new markets for them. To achieve cooperation with private bus operators, brokers should demonstrate the potential profits of cooperation with brokerage programs.

Easyride used the data from its survey sites to recommend service adjustments to PTDC bus routes. Even though these changes had little effect on the bus trips' productivity, the approach may prove valuable to other brokers and transit operators. Survey data can be used to refine or extend existing routes, and to identify existing services which are not cost-effective.

The Future of Easyride

At this time, the PTDC has not decided whether to assume Easyride funding. Several proposals currently are being discussed on the Peninsula. One such proposal is to combine the Easyride and Pentran planning and marketing staffs into an Office of Brokerage. This reorganization would allow the PTDC to integrate and coordinate bus and alternative service planning and to continue Easyride functions at little added expense.

Implications for Transportation Brokerage

The Easyride demonstration suggests that there are several factors, in addition to the brokerage program itself, which affects participation in brokerage programs and the increase in ridesharing resulting from the brokerage program. These are:

- the size, number, and proximity of an area's employers which affect the pool of potential ride-sharing partners;
- the number of ridesharing incentives, such as long commute distance, a limited parking supply, and HOV facilities, which operate to encourage ridesharing; and
- the willingness of area employers to commit resources to employment site promotional efforts.

Communities considering whether a similar brokerage program would be appropriate for them should take these factors into account.

The Easyride demonstration suggests that a transportation broker can perform a valuable function as part of a transit authority. Two major benefits of a transportation brokerage program, housed in a transit operating agency, are to:

- provide a service alternative to extending conventional fixed-route transit service to new areas where such service extensions are not financially warranted; and

- provide a service alternative when it is necessary to curtail or eliminate existing fixed-route transit services which are not cost-effective.

Public sector contributions to operating budgets are being curtailed while operating costs continue to rise; both of the above benefits are of potential importance to transit agencies.

Start-up problems experienced by Easyride within the PTDC underscore the need for strong transit board leadership when instituting a brokerage program in a transit authority. The broker's functions' within the transit authority must be clearly defined by the board so that the complementary role of the broker and conventional fixed-route transit services are understood.

Easyride's experience also emphasizes that transportation brokerage programs require early definition and focus. Brokerage offers a wide range of opportunities. A realistic course of action must be defined when the program is initiated to avoid overextending staff and resources and to help ensure that program goals are accomplished.

1. INTRODUCTION

1.1 OVERVIEW OF THE EASYRIDE DEMONSTRATION PROJECT

The problems of highway congestion and the adverse effects of automobile travel on air quality and fuel supplies are well-known. These problems, coupled with the specter of rising transit deficits and the inability of fixed-route transit to serve low-density areas effectively, have fostered a search for new strategies to use our urban transportation systems more efficiently. The demand for transportation services has experienced strong growth as expanding labor forces and rising incomes have increased auto ownership and use. Suburban residential development, fostered by cheap, plentiful fuel and quick access to employment sites by means of modern highways, has been accompanied by increased trip lengths and greater reliance on automobiles. Dispersed, low-density developments are poorly suited to fixed-route transit service and the recent Federal emphasis on Transportation System Management (TSM) planning is a response to these trends.

In some communities, particularly large urban areas, TSM policies, such as preferential parking and express lanes for high-occupancy vehicles, are being implemented to alleviate peak-hour congestion and pollution problems. Ridesharing is another approach that many urban and rural areas are promoting to address these problems. The Easyride ridesharing project in Newport News and Hampton, Virginia, was funded by the U.S. Department of Transportation (DOT) Urban Mass Transportation Administration (UMTA). Its purpose was to demonstrate the feasibility of a transportation broker to serve as a catalyst for increasing occupancies in public and private vehicles.

1.1.1 Transportation Brokerage

Transportation brokerage is an evolving concept. It entails a public or private organization acting as an information center and coordinator for suppliers and users of transportation. The brokerage concept was first introduced in the Knoxville, Tennessee, Brokerage Project that was also evaluated by UMTA's Service and Methods Demonstration Program (SMD).*

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* R.D. Juster, et al., The Knoxville Transportation Brokerage Demonstration Project: An Evaluation, U.S. DOT Report, UMTA, TN-06-0006-79-1, 1979.

Easyride, in its role as a transportation broker, promotes and facilitates ridesharing in public/private vehicles in much the same manner that a real estate broker advertises and arranges property sales. Easyride also acts as a ridesharing advocate and encourages citizens to participate in ridesharing for their own immediate benefit as well as for larger, societal goals. Easyride markets its ridesharing brokerage services primarily at major employment sites on the Newport News-Hampton Peninsula. The marketing approach uses employees at the work sites to collect data (used to create computer matchlists) and to provide ongoing assistance to ridesharers. Easyride also operates special transportation services for the handicapped and works to coordinate the supply of and demand for transportation at social service agencies.

1.1.2 Local Goals and Objectives

Soon after the Peninsula Transporation District Commission (PTDC) assumed ownership of the local private bus company, it realized that transit deficits were rising faster than the cities of Newport News and Hampton's willingness to fund the deficits. At the same time, the PTDC recognized that there was substantial unused transportation capacity in both private and public vehicles (i.e., empty seats in autos and buses). It began looking for ways to utilize this unused capacity to meet Peninsula mobility needs. The PTDC also realized that some transportation service could be provided by the private sector and needed a mechanism to identify these services. The PTDC believed that a transportation brokerage program would offer means to perform these functions. Efforts therefore were begun to set up Easyride, which was such a program.

The PTDC's goals for Easyride as stated in the grant application and amendment, were:

1. To reduce auto use for the work trip, especially in the major corridors of the lower Peninsula and their feeder arteries by designing and promulgating shared ride alternatives.

   Specifically: to establish the feasibility of alternative methods of ridesharing for the five major employers on the Peninsula.

2. To investigate and promulgate the feasibility of paratransit service as a substitute for, or feeder to, fixed-route bus service.

Specifically: to develop and analyze alternative paratransit methods to turn around or replace uneconomical bus service, recruit sponsors for such paratransit, and provide technical assistance for establishing the alternatives.

3. To prove the feasibility of paratransit for providing transportation for the young, old, handicapped, and poor.

   Specifically: to select a significant destination such as a hospital, health center, or shopping center and delineate a service area, design and rank alternative paratransit methods, and develop financing avenues for the services.

4. To coordinate all transportation providers on the Peninsula, both public and private, in an attempt to maximize service; to include the design of new or the altering of existing modes.

In the grant application and amendment, the PTDC specified numerous objectives for Easyride to meet in light of the goals for the program. These objectives were to:

- identify travel patterns on the Peninsula and promote appropriate ridesharing alternatives through a computer matching service;
- spur individual efforts to share rides through heightened public awareness of transportation energy waste;
- induce at least one of the Peninsula's five largest employers to establish a ridesharing program for its employees;
- secure media coverage of ridesharing on a regular basis;
- identify the transportation needs of the Peninsula's transportation dependent;
- identify and coordinate the activities of private haulers on the Peninsula, both bus companies and vanpoolers;
- promote use of TSM strategies, such as park 'n' ride lots and flextime, which facilitate ridesharing;

- identify and coordinate the transportation activities of Peninsula social service agencies;

- identify paratransit substitutes for certain uneconomical bus routes;

- organize paratransit links to fixed-route bus service to increase ridership on at least one bus route; and

- demonstrate the feasibility of a taxi loop or jitney service from neighborhoods with a concentration of transportation disadvantaged to a key destination so that a social service agency might assume service delivery on one such loop.

1.1.3 SMD Goals

From both national and local perspectives, PTDC's objectives for Easyride address the following SMD goals to improve transportation system characteristics:

- provide more efficient and effective public transportation service;

- integrate public and private providers into a comprehensive set of public transportation services; and

- develop a mix of innovative transit service models that appeal to a wide range of user groups.

1.2 PROJECT EVALUATION

The Easyride project evaluation addresses the questions of what changes were made to the transportation system, how users responded, and the effects of these changes on individuals, institutions, and transportation system performance. Specifically, this report discusses the following major issues:

- Political and institutional effects on Easyride development. Easyride, as the broker, is an institution established among existing organizations that must work with these organizations. The interactions among the participants influenced Easyride's assumed role and altered the roles of the existing organizations.

- Ability of Easyride to achieve coordination of transportation services. One of Easyride's main functions is to coordinate use of existing transportation facilities to increase the transportation system's productivity and service coverage.

- Impacts of Easyride on travel behavior. A major objective of Easyride is to promote commuter ridesharing.

- Easyride operations, staffing, and costs. Easyride administration is documented to assist local administrators contemplating a transportation brokerage program to understand staffing and funding requirements.

- Easyride's ability to satisfy local goals and objectives. Easyride, as a broker, is a structure within which a variety of local objectives are carried out.

1.2.1 Measuring Easyride's Effect on Travel Behavior

As part of this evaluation, two surveys were conducted to measure Easyride's effect on Peninsula travel behavior. The first, a telephone survey, was administered to a sample of individuals who had completed Easyride questionnaires at employment sites. The second, a vanpool survey, was mailed to Easyride vanpool drivers and passengers.

1.3 ORGANIZATIONAL ROLES

The PTDC is the transit commission serving Newport News and Hampton. It was chartered by the State of Virginia to assume the assets of the local bus company and to provide local bus service. Subsequent to PTDC take-over, the bus system was named Pentran. The PTDC does not have taxing authority, and transit deficits are funded by the cities of Newport News and Hampton. PTDC budgets must be approved by both city councils.

The Easyride demonstration project was funded by a grant from UMTA's SMD program. The PTDC submitted a grant application in January 1978 and was subsequently funded to organize and staff a transportation brokerage office within its jurisdiction. Until that time, the PTDC only provided bus service.

Figure 1-1 illustrates the PTDC's organizational structure. Easyride and Pentran are separate entities which answer to the PTDC Executive Director and, ultimately, the Commission. Handi-Ride, the PTDC's demand-responsive transportation service to the handicapped, is part of Easyride's operations.

The U.S. DOT Transportation Systems Center (TSC), which is responsible for evaluating SMD projects, selected Peat, Marwick, Mitchell and Co. to conduct an analysis of the Easyride project. In conjunction with UMTA and Easyride, TSC and Peat Marwick identified the salient evaluation issues and developed a program to evaluate them. Peat Marwick designed the data collection and analysis program. The PTDC was responsible for primary data collection and hired James Hall III & Associates to conduct the telephone survey. Peat Marwick analyzed the data and documented the findings in this final report.

1.4 REPORT ORGANIZATION

Section 2 describes the physical, economic, and demographic characteristics of the Newport News-Hampton area. Transportation system characteristics and performance on the Peninsula are also discussed.

The institutional context and issues that arose during the demonstration are treated in Section 3. This section looks at the forces and events that influenced Easyride's evolution as a transportation broker.

Section 4 describes Easyride's staffing, budgeting, and administration. One purpose of this section is to provide a general estimate of project costs for communities considering similar activities.

Section 5 provides a detailed description of Easyride's ridesharing brokerage activities. The latter half of this section analyzes Easyride's effects on work trip travel behavior.

Section 6 describes Easyride's special services transportation brokerage and the operating characteristics of Handi-Ride.

Section 7 summarizes the project evaluation and presents our conclusions on transportation brokerage. This section also explores the transferability of the study findings to other sites.

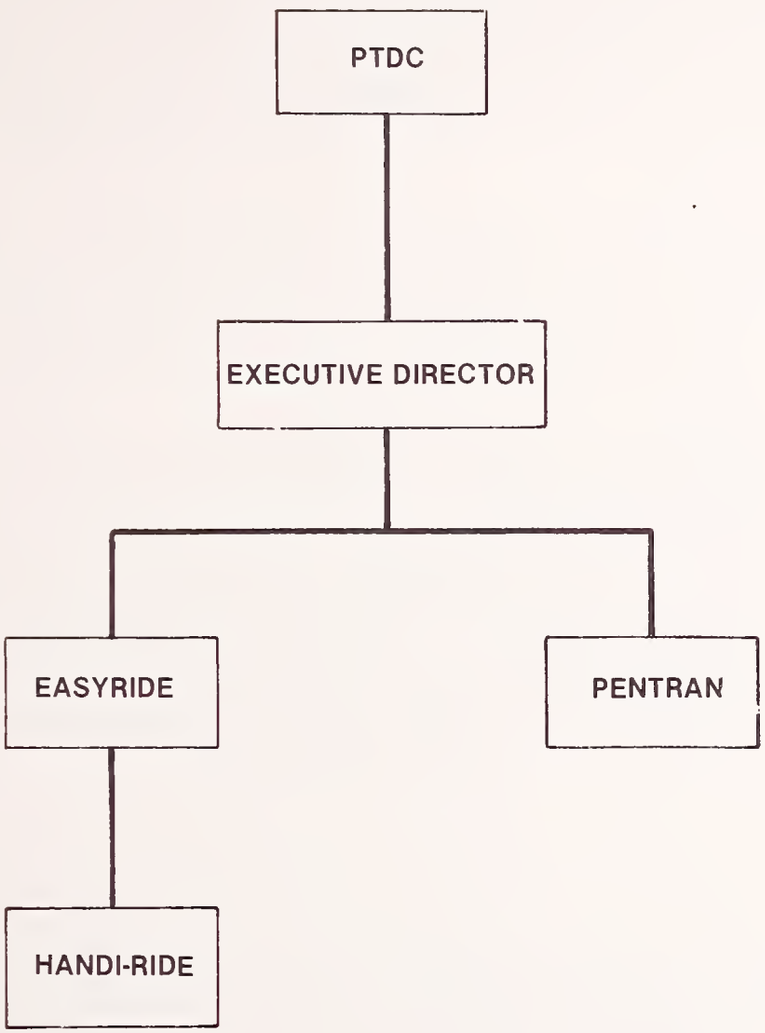

FIGURE 1-1. PTDC ORGANIZATIONAL STRUCTURE

2. SITE DESCRIPTION

The lower Virginia Peninsula is located in the southeast corner of Virginia. It includes the cities of Newport News and Hampton, and contains major military and shipbuilding facilities. Most of its industrial and residential activity is located along the shores of the James River and Hampton Roads. In 1975, Newport News population was 138,760, Hampton population was 125,013, and the total standard metropolitan statistical area (SMSA) population was slightly less than 350,000.*

Private autos and trucks serve the bulk of the area's transportation demand, and the roadway system is generally able to meet off-peak travel demands without delays or congestion. During peak commuting periods, however, certain roadways and intersections experience delays and stoppages.

Transit serves only a small share of total transportation demand on the Peninsula; in 1975 transit's estimated share of total SMSA trips was 5.2 percent. The unlikelihood that conventional fixed-route transit will significantly serve future peak-hour commuting demand, combined with the fact that transit deficits are rising, prompted the two city councils to explore other, less costly alternatives. In part, the Easyride project was conceived to help alleviate some of these financial pressures while preserving a high level of transportation services and alternatives for area residents.

2.1 GEOGRAPHY

The combined land area of Newport News and Hampton is 123.8 square miles, of which Newport News represents 56 percent. Bounded by the James River on the west, Hampton Roads on the south, and the Atlantic Ocean and Back River on the east, the Peninsula's development has been and will continue to be shaped by its geography (Figure 2-1).

Historically, residents have located in the southern portion of the Peninsula, while major employees have located along its periphery. Some residents must traverse the 20-mile

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* At the time of the 1975 Census Update, the Newport News-Hampton SMSA included the cities of Newport News, Hampton, Williamsburg, and Poquoson. Also included in the SMSA were the counties of York, James City, and Gloucester.

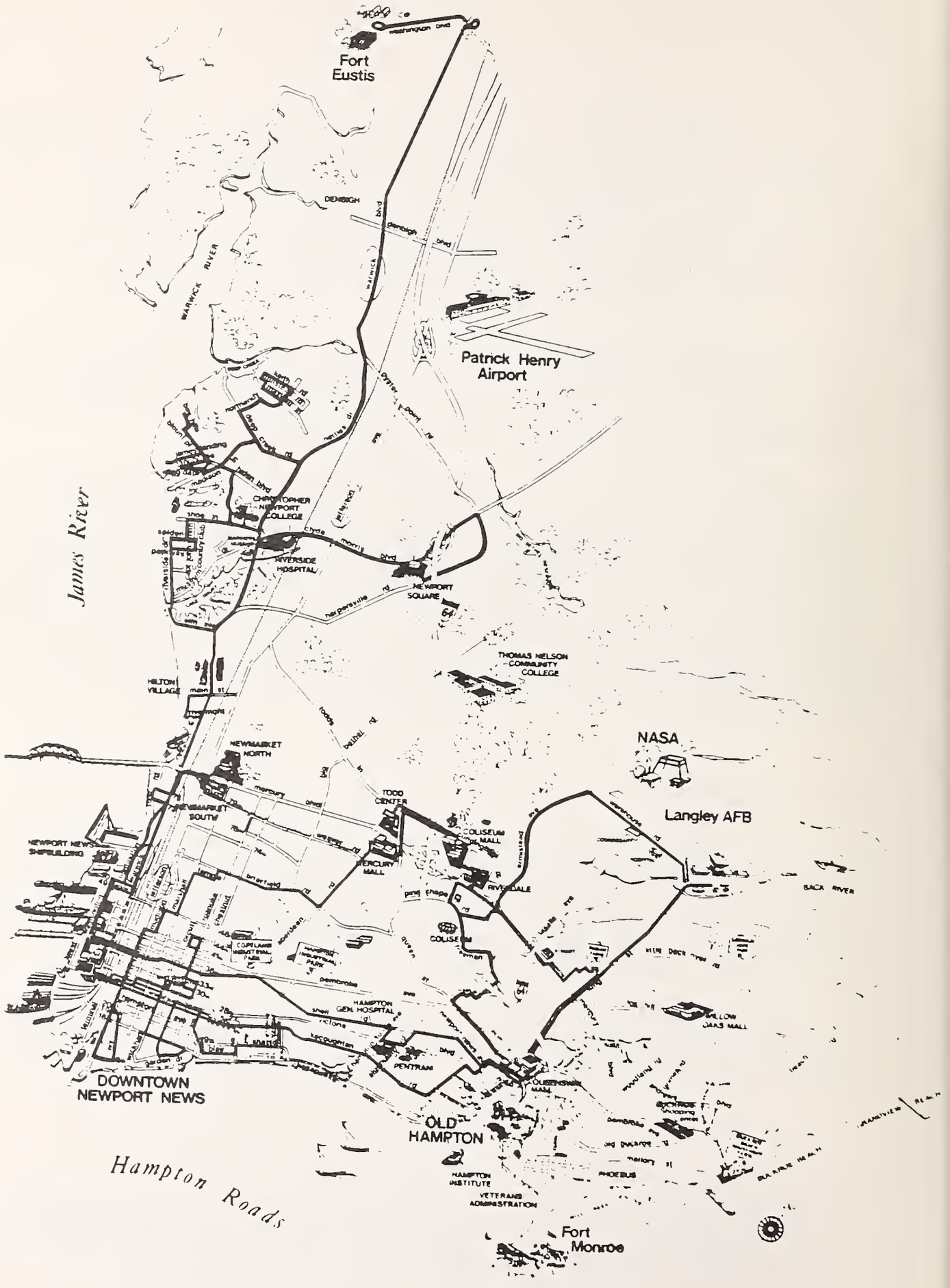

FIGURE 2-1. NEWPORT NEWS, HAMPTON AND SURROUNDING AREA

length or 8-mile width of the Peninsula to reach their employers. Although future industrial and residential growth is forecast for the outlying areas in the region, the fixed nature of much of the existing industrial capital will act to preserve current commuting patterns.

2.2 DEMOGRAPHY

Both Newport News and Hampton have relatively similar demographic profiles with respect to race, age, employment, and median income. Table 2-1 presents these characteristics and also shows the distribution of auto ownership for the SMSA.

The greatest population densities in the region are found in the core of the Peninsula along the lower reaches of the James River and south of Mercury Boulevard. Even though this section represents less than 12 percent of the Newport News land area, it contains 39 percent of the population. Similarly, in Hampton the area south of Mercury Boulevard represents only 21 percent of the city's area, but contains 37 percent of the population.

The areas of Newport News and Hampton that contain high population densities are also characterized by high concentrations of the transportation disadvantaged (i.e., persons who lack ready access to private autos). Of the approximately 100,000 elderly, young, and poor residents of the Peninsula, almost half are concentrated in about 12 square miles of older, downtown neighborhoods. Approximately 30 percent of the region's young, 40 percent of the region's elderly, and 54 percent of the region's poor live in these older sections.

Auto ownership in the SMSA has been growing, and the PTDC anticipates continued increases, particularly in the outlying growth areas. Table 2-1 shows that between 1970 and 1975, the percent of households with no cars or one car declined, while the percent of households with two cars or three or more cars increased. Newport News anticipates that by the year 2000 its car ownership will increase 14 percent and Hampton expects an increase of 40 percent. This would produce a total of 158,000 cars in these two cities. Additional major increases in auto ownership are expected from the neighboring counties. York County, James City County, and the City of Poquoson anticipate increases approaching 100 percent during the 25-year period from 1975 to 2000. Area planners forecast that by the year 2000 approximately 210,000 autos will be on the Peninsula serving 490,000 people, of whom 224,000 will be employed.

TABLE 2-1

DEMOGRAPHIC PROFILE OF NEWPORT NEWS AND HAMPTON

CHARACTERISTIC	NEWPORT NEWS	HAMPTON	SMSA
LAND AREA (sq. mi.)	69.1	54.7	655
POPULATION			
1975	138,760	125,013	347,000
1970	138,177	120,799	333,000
Percent White	70.8	74.1	-
Percent Black	28.4	25.4	25.6
Percent 65 years and older	5.3	5.0	5.0
CIVILIAN LABOR FORCE (1970)			
TOTAL	47,084	41,686	88,770
TOTAL EMPLOYED	45,253	40,232	85,485
Percent in Manufacturing	28.2	23.1	23.1
Percent in Retail & Wholesale	18.1	18.7	18.0
Percent in Government	23.8	28.9	-
MONEY INCOME			
1974 Per Capita Income	$4,657	$4,420	$ 4,499
1969 Median Family Income	$9,315	$9,670	-
AUTO OWNERSHIP			
1970			
None	-	-	12,000 (14.4%)
One	-	-	40,700 (49.0%)
Two	-	-	26,500 (31.9%)
Three or more	-	-	3,800 (4.6%)
1975			
None	-	-	12,500 (13.6%)
One	-	-	41,800 (45.5%)
Two	-	-	30,600 (33.3%)
Three or more	-	-	7,000 (7.6%)

Sources: "County and City Data Book 1977," U.S. Department of Commerce, Bureau of the Census, 1977.

"1975 Annual Housing Survey," U.S. Department of Commerce, Bureau of the Census, 1975.

2.3 EMPLOYMENT

The Newport News and Hampton work force is estimated to include 110,000 employees and is expected to increase to 180,000 by the year 2000. Five major employers on the Peninsula provide 50,000 jobs and account for about half of the combined employment of Newport News and Hampton. The sites of these major employers are identifed in Figure 2-1, shown earlier, and include:

- Newport News Shipbuilding and Drydock Company;
- National Aeronautics and Space Administration's (NASA), Langley Research Center;
- Langley Air Force Base;
- Fort Eustis; and
- Fort Monroe.

2.4 TRANSPORTATION SYSTEM AND SUPPLY

Private autos and trucks dominate the regional transportation system and, in 1975, accounted for 93.0 percent of the vehicular work trips in the Newport News-Hampton SMSA. Fixed-route bus service is provided by Pentran, although transit's share of the SMSA work trips has been declining and dropped from 9.0 percent in 1970 to 5.2 percent in 1975, for a net loss of 3.8 percent. Table 2-2 presents the 1975 modal split for the Newport News-Hampton SMSA and compares it with the total for Transportation Group D* and also with the total for all SMSAs in the United States. The decline in Pentran patronage has been greater than the average decline in transit's share of work trips for cities in Transportation Group D.

Peninsula work trips are characterized by a higher rate of ridesharing than the U.S. average. In 1975, 27 percent of the

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* Transportation Group D is a combined value of four medium-sized and smaller SMSAs primarily oriented to auto transportation used in the U.S. Department of Commerce Bureau of Census publication Selected Characteristics of Travel to Work in 21 Metropolitan Areas: 1975 for comparison purposes. The four SMSAs that compose Transportation Group D in the 1975 report are Springfield-Chicopee-Holyoke, MA, Madison, WI, Colorado Springs, CO, and Newport News-Hampton, VA.

TABLE 2-2

MAJOR MODE OF TRANSPORTATION TO WORK (1975)

Mode	Newport News-Hampton SMSA		Transportation Group D Total[5]		United States Total	
	Number (000)	Percent[1]	Number (000)	Percent[1]	Number (000)	Percent[1]
All workers	117	...	565	...	80,125	...
Not working at home	115	...	539	...	77,540	...
Workers using vehicles	110	100	508	100	73,762	100
Auto or truck[2]	102	93	468	92	67,869	92
Drives alone	*72	65	347	68	52,294	71
Carpool	*30	27	118	23	15,575	21
Shares driving	*15	13	*41	8	N/R	N/R
Drives others	**5	5	*28	5	N/R	N/R
Rides with someone	**10	9	*49	10	N/R	N/R
Public transportation[3]	**6	5	*25	5	4,825	7
Bus or streetcar	**6	5	*24	5	3,100	4
Subway or elevated	-	-	-	-	1,179	2
Railroad	-	-	-	-	405	1
Other means[4]	***2	2	**16	3	1,208	2
Bicycle	***1	1	**9	2	471	1
Walks only	**4	[4]	*31	[5]	3,778	[5]
Works at home	***1	[1]	**13	[2]	2,585	[3]
Not reported	***1	[1]	**13	[2]	-	-
Totals:						
Auto	94	85	427	84	58,658	80
Truck	**9	8	*41	8	9,211	12

1 Percent of all workers using vehicles, except percents in square brackets [], which are of all workers.
2 Includes a small number of workers using auto or truck but not specifying type of riding arrangement. For auto and truck totals, see last two lines of table.
3 Includes workers using taxicab.
4 Includes workers using motorcycle and all other means not listed.
5 Combined values for 4 medium-sized U.S. SMSAs primarily oriented to auto travel.

Note: Degree of sampling error of the data is indicated with asterisks. In general, the larger the number of asterisks, the lower the reliability.

N/R = Not Reported

Sources: "Selected Characteristics of Travel to Work in 21 Metropolitan Areas: 1975," U.S. Department of Commerce, Bureau of Census, 1978, p. 14.
"Advanced Final Tabulations," U.S. Department of Commerce, Bureau of the Census, unpublished data, 1979.

vehicular work trips in Newport News were shared rides, compared with the U.S. average of 21 percent and the Transportation Group D average of 23 percent.

2.4.1 Pentran Bus Operations

In 1945, the Citizens Rapid Transit Company (CRTC), a local Peninsula corporation, acquired the Peninsula's street railway system and 125 buses. These facilities previously had been operated by a power utility that was forced to divest its transportation facilities when it merged with another utility to become VEPCO (Virginia Electric and Power Company). Streetcar service was terminated shortly after this acquisition, and bus service was substituted in its place throughout the area.

By 1973, the CRTC was operating 99 vehicles over 12 regular routes, 10 of which provided Saturday service. An additional 50 bus runs provided commuter services for the Newport News Shipyard. During the period 1968 through 1973, however, ridership on all routes declined from 12.7 to 8.2 million passengers and the directors of the CRTC considered terminating its operations. Communities on the Peninsula responded to the threat of losing all public transit by authorizing the Peninsula Transportation District Commission (PTDC) to acquire the operating assets of CRTC for $1.8 million.

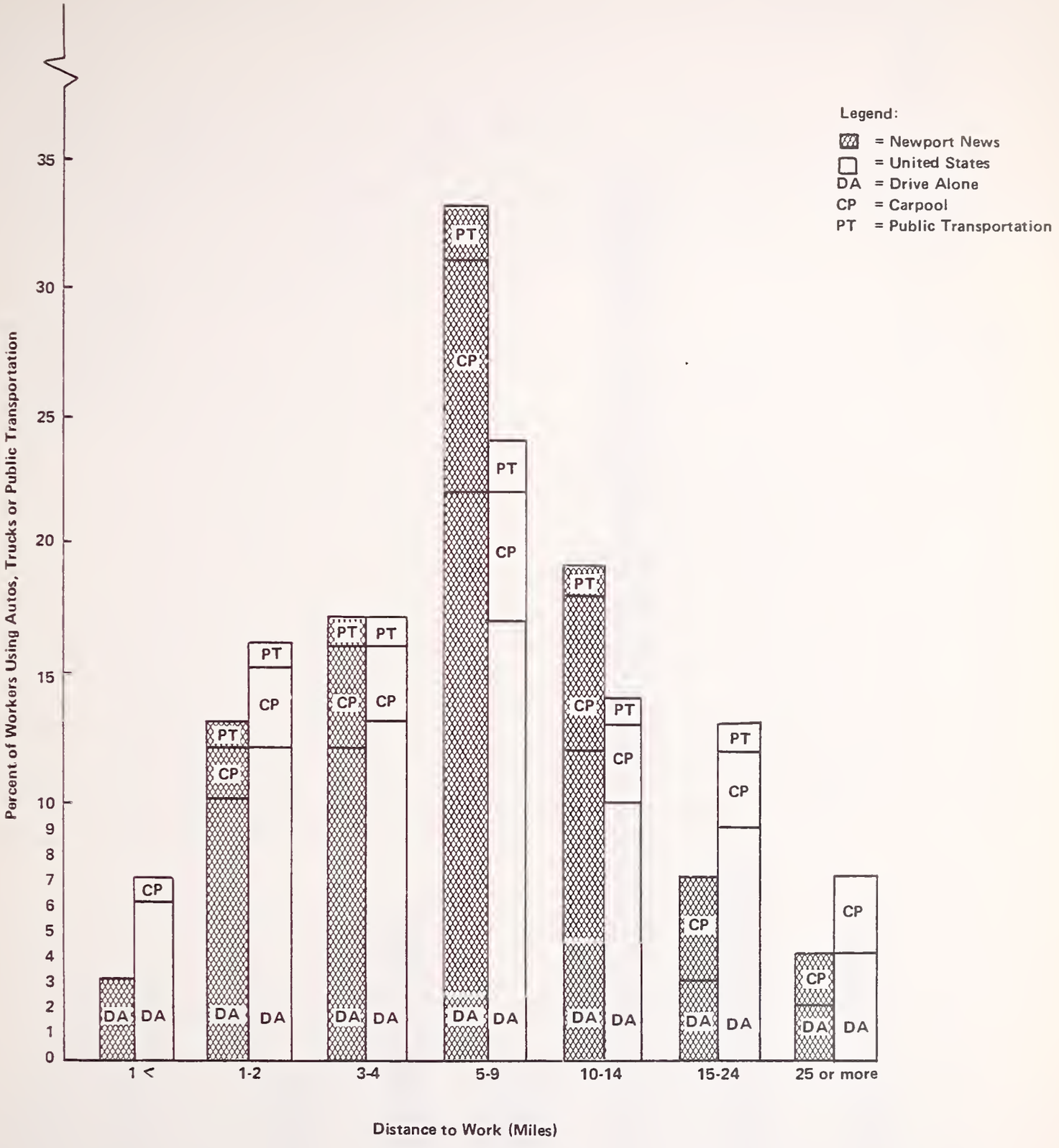
Pentran is currently operated by ATE Management and Service Company, under a contract originally signed in December 1977. ATE runs the daily operations and is responsible for performing ongoing budget and management reviews. Pentran operates 85 peak-hour buses and 23 base-period buses over 8 basic routes (with various alignments). Most of the peak-hour services are express buses serving the Newport News Shipyard under a special service contract. Pentran also provides extensive service to public schools under another service contract.

2.4.2 Auto Usage

The area's heavy reliance on autos makes it a logical target for projects (such as Easyride) which strive to improve vehicle occupancy. Most auto travel is north-south and parts of the local street system are inadequate for local and through traffic during commuting periods. The two major roadways serving this corridor, Warwick Boulevard and Jefferson Avenue, vary along their lengths from rural arterials with speeds approaching 55 miles per hour to heavily traveled urban arterials with severe access and egress problems. If the forecast increases in population, employment and auto ownership discussed above materialize, they are expected to exacerbate these problems.

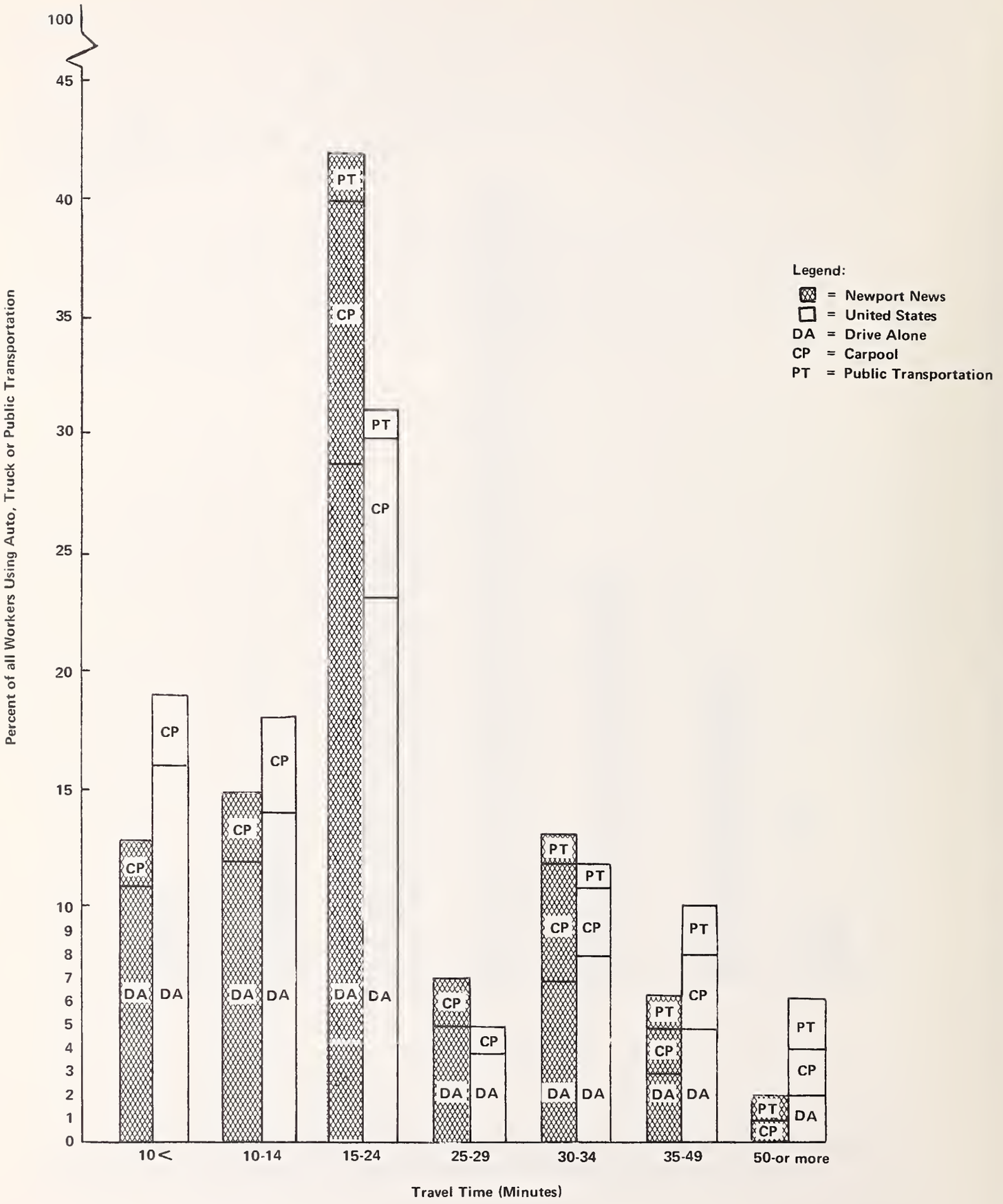
In 1975, auto work trip travel times and distances for Newport News averaged slightly higher than those for Transportation Group D. Newport News carpoolers' median travel times and distances were 21.8 minutes and 8.6 miles, respectively, compared with Transportation Group D's 19.8 minutes and 7.5 miles. Drive-alone travel times and distances were 18.5 minutes and 7.1 miles for Newport News compared with 17.1 minutes and 6.2 miles for Transportation Group D.

Figures 2-2 and 2-3 compare the distributions of travel distances and times for the United States and Newport News. Peninsula commuters tend to carpool more than the national average for travel distances of 3 to 4 miles, 5 to 9 miles, and 10 to 14 miles. Peninsula travel times are relatively consistent and almost half of all commuters traveled for 15 to 24 minutes to work.



Sources: "The Journey to Work in the U.S.: 1975," U.S. Department of Commerce, Bureau of the Census, 1979.
"Advanced Final Tabulations," unpublished data, U.S. Department of Commerce, Bureau of the Census, 1979.

FIGURE 2-2. MEANS OF TRANSPORTATION BY DISTANCE TO WORK: NEWPORT NEWS VERSUS U.S. TOTAL (1975)



Sources: ' The Journey to Work in the U.S.: 1975," U.S. Department of Commerce, Bureau of the Census, 1979.
"Advanced Final Tabulations," unpublished data, U.S. Department of Commerce, Bureau of the Census, 1979.

FIGURE 2-3. MEANS OF TRANSPORTATION BY TRAVEL TIME TO WORK: NEWPORT NEWS VERSUS U.S. TOTAL (1975)

3. INSTITUTIONAL AND POLITICAL INFLUENCES ON EASYRIDE

The Easyride project developed in two stages: an initial planning stage that identified potential brokerage markets and tactics, and a subsequent implementation stage for the employer-based ridesharing program that had been developed. The first stage began in July 1978 and the second stage began in July 1979 and was orginally scheduled to run through June 1981. The Urban Mass Transportation Administration (UMTA) later approved a grant extension through June 1982.

This section, which is divided into four subsections, identifies and analyzes institutional and political factors that have shaped the Easyride program. The first subsection explores conditions on the Peninsula before Easyride, such as the rising transit deficit and the location and density of major Peninsula employers. The second subsection identifies institutional factors that affected Easyride in its planning stage, including such factors as the first Director's previous employment experience and the response to Easyride's initial brokerage activities. Events during Easyride's planning stage had the most influence on the program and largely determined Easyride's focus and role in the community. Factors that influenced Easyride's transition from the planning to the implementation stage are discussed in the third subsection. Major influences at that time were union cooperation during the 13(c) negotiations and UMTA's approval of the grant amendment proposal. The fourth subsection discusses factors that influenced Easyride operations, including Easyride's relationship with Pentran, employer cooperation, and the 1979 gasoline shortage. A time line of major Easyride events is presented in Figure 3-1.

3.1 FACTORS AFFECTING THE GRANT PROPOSAL

3.1.1 Transit on the Pensinsula before Easyride

Bus operations on the Peninsula only recently were brought under public authority when, in 1975, the Pensinsula Transportation District Commission (PTDC) acquired a privately owned company in response to the threat of losing all public transit. Service had previously been provided by the Citizens Rapid Transit Company (CRTC). CRTC experienced a decline in transit ridership which accelerated in the 1960s and early 1970s (as did transit systems in other cities). During the period 1968 through 1973, annual ridership on all routes declined from 12.7 to 8.2 million passengers, which prompted CRTC to consider

1978	January	Initial Easyride grant submitted by Peninsula Transportation District Commission (PTDC)
	April	UMTA approved Easyride grant
	June	Phase I of Handi-Ride (Handi-Transit) began
	July	Director of Easyride assumed post Planning phase of Easyride operations began
	September	Handi-Ride brought under Easyride First Planner and Special Services Administrator assumed posts.
	October	Draft of the 16(b)(2) vehicle procurement policy accepted by the PTDC Formal signing of the joint service agreement between PTDC and Tidewater Transportation District Commission (TTDC)
	December	Virginia air quality report released Easyride grant amendment submitted to UMTA
1979	January	Special services vehicle lease agreement with Patrick Henry Hospital signed
	March	13(c) agreement ratified, sent to Secretary of Labor
	April	Energy Emergency Plan completed
	June	UMTA preliminary acceptance of grant amendment
	July	Implementation phase of Easyride operations began Phase II of Handi-Ride began First planner left
	August	UMTA formally approved grant amendment Second planner assumed post
	October	First Easyride director left, second director assumed post
1980	February	Second Special Services Administrator assumed post
	April	Evaluation monitoring began
	October	Easyride formally marketed Tidewater Regional Transit Vans Easyride Van Maintenance Program began Phase III of Handi-Ride began
1981	March	Evaluation survey administered
	April/May	Evaluation survey of vanpoolers administered
	July	Evaluation monitoring ended

FIGURE 3-1. TIME LINE OF EASYRIDE EVENTS

service termination. In respose to this threat, the PTDC was organized under Commonwealth of Virginia law to provide transit service, and for $1.8 million it acquired CRTC's operating assets. Beyond the role of a public transportation provider, the PTDC has no regulatory authority.

Along with the ownership of CRTC, the PTDC assumed the rising costs of public transit. Deficits rose from $528,123 in Fiscal 1976 to $1,635,725 in Fiscal 1978. This deficit met with considerable resistance from the city councils of Newport News and Hampton, the cities which provide the operating subsidies. Both cities finance the deficit through property taxes, and these taxes are a sensitive political issue on the Peninsula.

3.1.2 Transit Alternatives Considered

As the trend to single-occupant commuting continued, the prospects rose for larger transit deficits and increased roadway congestion. This led the PTDC to consider transportation alternatives that would serve community transportation needs and reduce public subsidies. Being relatively new, the PTDC was willing to explore new ideas. In 1978 the Chairwoman of the PTDC was also serving on the Virginia Governor's Council of Transportation when a brokerage project, sponsored in Knoxville, Tennessee, came to her attention. The Chairwoman visited Knoxville and subsequently persuaded the PTDC to seek a Service and Methods Demonstration (SMD) grant to set up a brokerage program on the Peninsula that was similar to that in Knoxville. Notwithstanding the fact that they did this, the other members of the PTDC were not wholly enthusiastic about the brokerage concept. The fact that no local monies would be required, however, was an important factor, and the other PTDC members did not actively oppose the plan.

3.1.3 Grant Proposal Development

The PTDC's first activity was to set up a committee to investigate the feasibility of submitting a grant proposal. The committee was composed of representatives from the PTDC, Newport News Planning Department, Peninsula Planning District Commission (the area's metropolitan planning organization), Virginia Department of Highways and Transportation (VDH&T), the general community, the transit dependent, and social workers.

The Newport News Planning Director had previously worked in Minneapolis-St. Paul and was familiar with its SMD ridesharing project. The Minneapolis project focused on employer-based ridesharing promotion. Planners on the committee pointed out

that the Peninsula's five major employers accounted for nearly 50 percent of the area's employment, making the Peninsula a logical site for an employer-based program like the Minneapolis project.

Also contributing to the decision to focus on employer-based ridesharing was Pentran's relatively high ratio of peak-hour to base-period bus service, and limits on the supply of buses to meet increased peak-hour service demands. Pentran operates about 93 peak-hour buses compared with 32 base-period buses. (Most of the peak-hour services are express buses serving the Newport News Shipyard under a special service contract.)

The PTDC applied for its first SMD grant in January 1978 and was awarded $250,000 for a two-year planning study to define and evaluate alternative paratransit techniques to meet the transportation needs of the Peninsula at minimum cost.

3.2 FACTORS AFFECTING EASYRIDE'S PLANNING STAGE

3.2.1 Easyride Planning Grant

The planning grant stated that "Easyride will attempt to define and evaluate various paratransit packages--mode and procedure--for the five major employers, selected social service agencies, and certain key destinations of the transportation disadvantaged, such as hospitals and shopping centers."

The grant, however, expressly prohibited any provision of ridesharing services, stating that "project personnel should not engage in the establishment or operation of actual services including the formation of commuter pools." Involvement in pool formation was forbidden because it would have required a 13(c) labor agreement. (The 13(c) agreement is the labor protection clause for transit personnel that deals with job security. The grantees and the affected unions negotiate the agreement which then is sent to the Secretary of Labor for certification.)

Because the initial grant was for planning, not providing, services a 13(c) agreement was not necessary. Easyride was structured in this way to permit ridesharing planning to occur within the PTDC while the 13(c) agreement was being negotiated. This approach was taken to avoid the delay in project implementation experienced by nearby Norfolk. Their vanpool project was delayed by difficult and time-consuming labor negotiations.

The grant provided for a three-person staff consisting of a Director, Market Analyst, and Executive Secretary. Because the

PTDC recruited a Director with considerable marketing experience, a Planner was hired rather than a Market Analyst. In September 1978, the PTDC transferred the Handi-Ride program (a specialized transportation service for the handicapped) from Pentran to Easyride. (The history of the Handi-Ride program is discussed in Section 6.) Easyride then hired a Special Services Administrator to manage Handi-Ride and to develop strategies to foster greater coordination of Peninsula special service transportation. (Staff organization and position descriptions are discussed in more detail in Section 4.)

3.2.2 First Director's Previous Experience

Easyride's first Director's previous experience in the transportation field was in a carpool/vanpool program. He came to Easyride from Computeride, a ridesharing organization in Maryland which surveyed employees at their work sites and distributed computer matchlists to promote ridesharing. Before joining Computeride, he worked in advertising. Shortly after assuming his post at Easyride, the Director initiated efforts to submit a grant amendment to secure authority to provide computer matching services. His concern was that the community would expect more than Easyride could deliver. Based on his previous experience and his perception of the community's expectations, he therefore narrowed the project's scope from investigating innovative paratransit services to more conventional work-trip matching activities. Significant energy was then expended on promoting Easyride to employers and to the public at large.

3.2.3 Easyride/Pentran Relationship

When drafting the original grant proposal, the question was raised whether Easyride should report to Pentran or directly to the PTDC. The conclusion was to create Easyride as an independent office reporting to the PTDC. In theory, Easyride was independent of Pentran; in practice, it was not because the General Manager of Pentran also served as the Executive Director of the PTDC.

Also, at that time the PTDC was negotiating with ATE Management and Service Company, Inc., for management of Pentran operations. One criterion for evaluating applicants for the General Manager position was a willingness to work with the proposed Easyride project. Nevertheless, the Pentran General Manager who was ultimately hired was initially skeptical of Easyride's function within the PTDC and the community.

3.2.4 Initial Brokerage Activities

Although the Director decided early in Easyride's planning stage to focus on ridesharing promotion, there were some initial attempts at investigating other brokerage opportunities (based on the Knoxville model). These initial activities, however, met with limited success. The decision to focus on ridesharing promotion was therefore reinforced, and investigations of additional brokerage strategies were abandoned.

Easyride attempted a survey of private bus operators to inventory private bus services on the Peninsula. Questionnaires, with a cover letter briefly explaining the Easyride project and how it could benefit the operators (Figure 3-2), were mailed to 15 bus companies. Only four were returned. Easyride established a working relationship with one private bus company.

There appeared to be several reasons why the private bus operators were unwilling to participate in the survey. The bus companies might have viewed Easyride as part of Pentran, with whom they have had a history of poor relations because Pentran had undercut their charter service. Pentran chartered its buses for less because it did not pay licensing fees and because it received operating subsidies. Since then, however, UMTA has required that "dummy costs" be built into public sector transit agency charter fees which incorporate these differences. Also, most of the bus companies, being small, might have had an inadequate understanding of a transportation broker or perceived limited opportunities to benefit from a transportation brokerage.

Easyride also conducted a survey of insurance companies to find out what reductions in premiums were available to ridesharers. Out of ten questionnaires sent, five were returned; Easyride has not used the results to become involved in insurance-related ridesharing issues.

Easyride and Pentran also conducted a survey of area park-and-ride lots to document their usage; however, no actions or policies resulted from the survey. It appears that interest in these activities waned as Easyride became more focused on developing an employer-based ridesharing program. Perhaps if there had been more response to the above brokerage activities Easyride might have continued to pursue these and other brokerage strategies.

easyride
A RIDE SHARING EFFORT OF THE
PENINSULA TRANSPORTATION
DISTRICT COMMISSION
3400 Victoria Blvd., Hampton, Va 23661
Telephone 804/722-2837

Dear Transportation Operator,

Your comments, please . . .

This survey is designed by EASYRIDE, a ridesharing effort of the Peninsula Transportation District Commission. EASYRIDE has been set up by PTDC to act as a transportation broker for people traveling into, out of or within the Peninsula.

In that capacity, we see our function as optimizing service that already exists before trying to create new forms of transportation. The first step, obviously, is to know what sorts of transportation already operate. That is why we'd like you to fill in and return the enclosed questionnaire.

Hopefully, what this will mean to you is more riders. We are also planning to survey commuters on the Peninsula. When we do, it may well be that we can direct some of them to your service, if you'd like us to.

One other advantage: We can serve as a central clearinghouse for insurance problems or legislation that's needed – almost an association of private operators. We won't guarantee a solution to long-standing problems, but if some of the issues are common to all of you, something might be done.

Thank you for your cooperation. We look forward to working with you in the future to improve private transportation in our area.

Sincerely,

Joseph M. Kursch Jr.

Joseph M. Kursch, Jr.
EASYRIDE Director

FIGURE 3-2. EASYRIDE LETTER AND SAMPLE PAGE FROM QUESTIONNAIRE FOR PRIVATE OPERATOR SURVEY

easyride
A RIDE SHARING EFFORT OF THE
PENINSULA TRANSPORTATION
DISTRICT COMMISSION
5400 Victoria Blvd., Hampton, Va. 23661
Telephone 804/722-2837

QUESTIONNAIRE FOR PRIVATE VEHICLE OPERATORS

All information will remain completely confidential
(PLEASE PRINT)

LAST NAME FIRST POSITION

COMPANY'S NAME AND SPECIFIC SERVICE PROVIDED ADDRESS

CITY STATE ZIP WORK TELEPHONE NUMBER

If vehicles are leased, please list name of lessor and to whom they are leased

1. For what trip purposes are your vehicles presently being used?
   Work _____ Shopping _____
   School _____ Recreation _____
   Church _____ Other _____
2. What employers do you service in the Peninsula area?
   a. _____
   b. _____
   c. _____
3. Are you presently operating Bus_____ Van _____ Other _____ (Specify)
4. What are the types and number of vehicles you now have operating?

Type	Seating Capacity	Availability of Ramps/Lifts for Elderly/Handicapped

5. What is the annual operating cost for each of your vehicles?
   Bus Van
   Maintenance $_____ Maintenance $_____
   Gas $_____ Gas $_____
6. What do you consider to be your total ridership capacity? _____
7. Do you receive fares –
   Weekly_____ Monthly _____ Semi-annually _____ Annually_____
8. Are there any additional services and/or locations you would like to include in your system?
9. On which route or routes could you accommodate more passengers?
10. Would you accommodate more passengers if you could?
    Yes_____ No _____
11. Who do you deal with on insurance matters?
    (Name) _____
    Address City State
    Phone
12. Do you find your insurance premium to be – Too High_____ About Average_____
    Comments: _____

FIGURE 3-2. (Cont.)

3.2.5 Special Services Planning

During Easyride's planning phase, its special services activities, its role within the PTDC, and the PTDC's role in Peninsula transportation coordination were influenced by the following special services planning events:

- PTDC transfer from Pentran to Easyride management of its specialized transportation service to the handicapped, subsequently named Handi-Ride; and
- Easyride development of a 16(b)(2) vehicle procurement policy for the PTDC.

3.2.5.1 Handi-Ride - In September 1978, the PTDC transferred management of its specialized transportation service from Pentran to Easyride. The service was initiated in June of that year to fulfill U.S. Department of Transportation (DOT) interim service to the handicapped regulations which implement Section 504 of the Rehabilitation Act of 1973.* Subsequent to Easyride takeover, the specialized service was named Handi-Ride. As mentioned previously, Easyride added a Special Services Administrator to its staff to manage Handi-Ride and to coordinate special services activities. Easyride therefore became a provider of specialized transportation services in addition to a broker of those services, with the assumption of Handi-Ride management.

3.2.5.2 16(b)(2) Procurement Policy - In addition to assuming Handi-Ride program management, Easyride developed a 16(b)(2) Procurement Policy for the PTDC. Under the 16(b)(2) program, private non-profit groups apply for Federal grants to purchase vehicles to provide specialized transportation services. States run the program for UMTA and apply its general guidelines to fit their own goals and needs.

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* Section 504 of the Rehabilitation Act of 1973 prohibits discrimination of the handicapped in any program receiving Federal assistance. DOT's interim service requirements stated that a transit property must provide service to the handicapped until the bus system is 50-percent accessible (i.e., lift-equipped) during peak-hour service. Currently, transit systems are allowed to offer paratransit service in lieu of equipping buses with lifts.

Following UMTA's guidelines, Virginia encourages coordination of the vehicles by asking area transit authorities, planning bodies, and local service agencies whether opportunities exist for coordination of the available local supply of vehicles. Virginia will reject applications if it believes coordination can be arranged.

In response to the Commonwealth's requests to the PTDC for endorsement of Federal grant applications for 16(b)(2) vehicles, Easyride developed the Specialized Service Policy which established PTDC procedure for review of the applications. (Easyride's 16(b)(2) Procurement Policy operations are discussed in Section 6.) The policy's purpose is to "integrate or combine the existing transportation resources and services of human service agencies or private organizations into one cooperative system." The policy meets one of the major goals of the Easyride grant which is to coordinate transportation services of social service agencies to improve transportation services to the transportation disadvantaged.

The PTDC's Specialized Service Policy takes the Commonwealth's encouragement of 16(b)(2) coordination a step further by designating Easyride as the broker who will investigate, develop, and administer alternatives to 16(b)(2) vehicle purchase. Even though Easyride has no statutory power to accept or reject applications, the Commonwealth acknowledges Easyride's role as the central broker and relies upon Easyride's recommendations.

Easyride's first step in implementing the policy was to conduct a mail survey of the Peninsula's social service agencies, hospitals, nursing homes, and churches to inventory the transportation services and identify opportunities for coordination. The survey asked the organizations to describe the following with regard to their transportation services:

- service area;
- number of vehicles operated and their capacity;
- passenger volume;
- frequent origins and destinations;
- days and hours of operation;
- weekly mileage;
- program clientele and service eligibility criteria;
- project sponsors and sources of funding; and
- any coordinated activities which are taking place.

The response to the survey was good and gave Easyride the necessary information for implementing the special service policy.

The 16(b)(2) Procurement Policy is important in the development of Easyride in that it was the program which first broadened its role beyond that of a ridesharing program. More important, the policy, which Easyride implements for the PTDC, transformed the PTDC from a transportation service provider to a transportation coordinator. The Procurement Policy was the first step in establishing the PTDC as the Peninsula's super agency for transportation, a philosophy which Easyride has become responsible for implementing.

3.2.5.3 Ridesharing Program Planning - After the 16(b)(2) program was developed, Easyride focused its efforts on:

- securing a grant amendment (which would allow it to provide ridesharing services); and
- planning the future employer-based program.

Additional special services activities were not actively pursued during this time. Because of personality conflicts between the Easyride Director and Planner, the Director worked closely with the Special Services Administrator to develop the ridesharing program and to market the program to area employers. In fact, the Director eventually relied on the Special Services Administrator to perform the functions of the Planner, and the Special Services Administrator eventually become Director--after the first Director resigned.

3.2.6 Energy Concerns and the 1979 Energy Shortage

When Easyride was initiated in the summer of 1978, gasoline was readily available and prices were relatively stable. This changed, however, in 1979. In response to threatened shortages, the PTDC (assuming its new role as the Peninsula's super agency for transportation) directed Easyride to develop an energy emergency transportation plan. Easyride began work on the plan in March 1979 and it was approved by the PTDC in April. Increased vehicle occupancy through private and public ridesharing was the primary objective of the plan. It was divided into four phases, with each phase addressing a more severe energy shortage. The first phase, designed for a mild shortage, mirrored the planned Easyride operations.

Although the Peninsula experienced some problems with gasoline shortages, no part of the plan was formally implemented. Restrictions on gasoline supplies on the Peninsula began at the

same time that Easyride was initiating its brokerage operations. Unlike major metropolitan areas, however, the Peninsula did not experience long lines or severe shortages. Sunday closings, slight reductions in station operating hours, and, of course, increased fuel prices were experienced.

The energy shortage was an important milestone for Easyride and the PTDC. In response to the crisis it threatened, the PTDC performed in its new role as the Peninsula transportation coordinator and used Easyride to execute its policy.

Also, the 1979 energy shortage turned out to be a fortuitous event for Easyride. Easyride's Energy Emergency Transportation Plan put it in the news and gave it exposure and recognition it might not otherwise have had. Easyride capitalized on the coverage and used it to explain ridesharing benefits in anticipation of implementing its ridesharing program. The crisis also helped generate a strong interest in ridesharing among several of the employers who attended Easyride's initial informational meetings.

3.2.7 Environmental Concerns

In October 1978, the Virginia State Air Pollution Control Board published a report requiring that, by 1987, the Peninsula area reduce its photochemical oxidants (or smog) by 43 percent. Even though improved environmental quality was a potential benefit from the Easyride program, this issue did not significantly bear on Easyride's development because the Board also forecast that the area would meet the 1987 air quality standards without major policy initiatives. Attainment of air quality standards may become an important consideration in deciding whether to assume local funding for the project after the Federal grant runs out, however, because Easyride is expected to play a role in meeting the standards. The Executive Director of the Peninsula Planning District Commission stated that the area is expected to reach Federal standards for reduction in smog by clamping down on polluters, controlling fuel vapors at gasoline storage tanks and gas stations, requiring maintenance and inspection of pollution controls on vehicles, and encouraging projects such as the PTDC's Easyride. The Peninsula is not expected to meet the 1982 deadline for pollution reduction, so a program such as Easyride may acquire added importance for meeting the 1987 standards.

3.3 FACTORS AFFECTING THE TRANSITION FROM PLANNING TO IMPLEMENTATION

Originally, UMTA planned to consider an extension of the program in the second year of the grant period for implementing the plans that had been developed. After the first month of the program, however, Easyride staff became concerned. They feared they were generating an interest in ridesharing for which they would not be able to establish service and thereby would lose their credibility in the community. Easyride responded by applying for a grant amendment which shifted the focus from planning to implementation. The grant amendment proposed to change Easyride from a passive mediator to an active provider of vehicles and services to run pools. The PTDC endorsed the idea in November 1978 and the grant amendment was submitted to UMTA in December. The amendment required a 13(c) agreement, so PTDC began negotiations with the local transit union.

3.3.1 13(c) Labor Agreement

As mentioned previously, the strategy of the committee that had drawn up the initial grant was to obtain a planning grant which would permit the project to begin immediately, while the PTDC concurrently negotiated a 13(c) agreement with the transit union. The negotiations were expected to be long and arduous, based on the experience of the Tidewater Transportation District Commission (TTDC) in Norfolk and organized labor's traditional opposition to practices which it perceives threatens job security.

Problems never developed, however; the union, Local 1177 of the Amalgamated Transit Union (ATU), was extremely cooperative and the negotiations proceeded quickly and smoothly. Begun in February 1979, the negotiations produced an agreement which was signed in March after changes suggested by the union were made.

The agreement guarantees that "there shall be no diminution of the size of the Union's bargaining unit as a result of the Easyride project" and that maintenance of all Easyride purchased vehicles will be performed at Pentran facilities by Pentran employees. It also requires that all Easyride services be operated under "such restrictions and limitations as may be necessary or desirable to prevent Easyride transit services from competing with, displacing, or replacing" the fixed-route system. It does not protect an employee hired as a result of Easyride who is laid off upon termination of the project. It does, however, allow either party to submit a dispute over the application, interpretation, or enforcement of the 13(c) clause to binding arbitration, if it remains unresolved after 30 days. Easyride is required to send the union progress reports on the

demonstration project. No restrictions such as the ones agreed to by TTDC (Norfolk) which excluded certain employment centers and routes from the program were demanded.

The ATU's main concern was the threat Easyride posed to its members' jobs. The president of the local union said, "We know there are people who need (carpool or vanpool) service. We just don't want it undercutting people out there trying to make a living." Easyride placated the operators' fears by emphasizing that it would be promoting bus service along with car and vanpools, depending on the appropriate mode. It also pointed out that the project would enhance the operators' job security through its use of Easyride data to improve bus service, thereby reducing operating deficit and political pressures to reduce service. Negotiations were also aided by a history of good management/labor relations between the ATU and the PTDC.

Acceptance of the 13(c) agreement cleared the way for approval of the grant amendment which permitted Easyride to become an operating agency.

3.4 FACTORS AFFECTING EASYRIDE'S IMPLEMENTATION STAGE

3.4.1 Proposed Grant Amendment

Easyride's 1978 grant amendment proposed that Easyride operate centralized computer-matching services to identify and coordinate potential ridesharing alternatives for Peninsula residents. Easyride's desire to operate these matching services reflected its belief that employers wanted centralized services in a public agency. The grant amendment signified a change in Easyride's initial philosophy (to rely heavily on employer-sponsored activities, including ridership files and ridesharing administrators). This change in approach occurred as Easyride became more familiar with employers' expectations and experience with ridesharing. Consultations with several Peninsula employers revealed that some favored a central matching system managed by Easyride.

Almost all of the major employers had experimented with ridesharing programs as a result of the 1973 energy shortage. Fort Eustis, the National Aeronautics and Space Administration's (NASA) Langley Research Center, and Langley Air Force Base had set up computer-matching services which had proven to be relatively effective. Fort Monroe's matching system had been ineffective, and the Newport News Shipyard had promoted ridesharing without a matching effort. Unfortunately, the Peninsula employers with computer matching services were Federal agencies and

their programs had to be canceled with the passage of the Privacy Act of 1974. (The act prohibits a Federal agency from releasing most employee information without the individual's written consent.)

On the basis of its employer contacts, Easyride concluded that computer matching was a necessary ingredient for its ride-sharing program. Not only had employers stated an interest in computer matching, but Easyride also considered centralized matching services more efficient, more easily monitored and controlled, more usable for smaller employers, and more suitable to multi-modal promotion and matching.

The grant amendment also requested funds to purchase 24 vans that could be used to promote vanpool formation and serve as a backup fleet for vanpool drivers and to aid in the coordination of special transportation services. Easyride wished to become a provider of vans as Tidewater Regional Transit (TRT) in Norfolk had become under its own ridesharing program.

3.4.2 Grant Amendment Approval

Preliminary approval was given to the grant amendment in June 1979 and final approval in August 1979. UMTA, however, approved only $320,000 of the $602,000 requested for extension of the program through June 1981. The approved amount was lower than the requested amount because UMTA allowed the purchase of only five to seven vans instead of the requested 24. UMTA did not want Easyride to duplicate neighboring TTDC's vanpool services, and wished to focus the demonstration on brokering existing transportation opportunities rather than introducing a new publicly sponsored supply of vehicles. The other provisions of the amendment were approved intact. The combined total of the initial grant and the grant amendment amounted to $570,000.

Easyride did not encounter significant institutional obstacles during its implementation and operating stage. Pentran and Easyride developed a cooperative working relationship during this period. Employers by and large have been cooperative and, in some instances, have contributed significant staff time to Easyride's survey process. Cooperation between PTDC and TTDC also aided Easyride's development. This factor and others are discussed below.

3.4.3 Easyride/Pentran Relationship

The poor relations between Easyride and Pentran that characterized Easyride's planning phase improved during this period as Easyride's activities ultimately proved supportive of Pentran services. There are several reasons for Pentrans' present strong advocacy of the program.

Contributing to improved relations between Pentran and Easyride was the treatment of bus ridership in the grant amendment. The amendment stated that opportunities to increase ridership on the fixed-route system would be the first priority in Easyride analyses and recommendations. Easyride's philosophy is to promote existing transportation services first and to recommend alternative services only when necessary. Services to be brokered after Pentran opportunities are explored include private haulers (e.g., subscription buses) and private autos and vans.

Easyride has been politically useful for both Pentran and the PTDC. Easyride has been used to serve areas that Pentran cannot serve either because it does not have enough buses or because bus service to these points would be inefficient. An example of this is the Oyster Point Industrial Development, which contacted Pentran regarding bus service. Bus service would have been inefficient because of the site's remote location and low number of employees. Pentran then referred the developers to Easyride which subsequently conducted a survey.

Easyride, therefore, has enabled the PTDC to expand its service coverage to more of the transportation district in a less costly manner.

Pentran capitalizes on Easyride's contacts in an effort to improve its service and uses Easyride to test new markets. For example, Pentran used an Easyride survey of the Bendix Corporation to find out the workers' travel patterns and interest in bus service. As a result, Pentran extended a bus trip to the site to make its route more productive. In addition, the Easyride Planner serves on Pentran's Service Planning Committee, and recommends bus service adjustments based on survey results. Based on Easyride's recommendations, the schedules of two buses were altered in attempts to increase the routes' productivity.

Social and professional interaction between Easyride and Pentran employees also has helped build a good working relationship between the two organizations. The Easyride staff shares office space with the Pentran staff, thereby promoting social and professional interaction. Information is shared freely between the staffs, and several marketing programs have been jointly sponsored. Easyride's current staff members are all former Pentran employees, which has reinforced Easyride's credibility with Pentran.

3.4.4 Employer Cooperation

Employer cooperation is essential for Easyride's employer-based promotions. Most area employers were very cooperative with Easyride; they allowed Easyride to use company time and

staff for the matchlist surveys, and contributed significant time and staff to the promotion effort.

Several factors contributed to the fact that most employers were willing to cooperate. Easyride had pre-sold the program to many of the area's employers during the planning phase, virtually assuring employer cooperation during implementation. Also, the gasoline shortage of the summer of 1979 was at its peak when Easyride began offering its matching services; the shortages heightened interest in energy conservation and caused concern among employers about whether their employees would be able to get to work. In addition, because four of the five largest sites at which Easyride conducted surveys are Federal Government sites, they are required by General Services Administration (GSA) regulations to appoint ridesharing coordinators, offer preferential parking for poolers, and promote ridersharing.* Of Easyride's 19 surveys completed before July 1, 1981, 8 were were conducted at Federal sites.

The major exception to the group of cooperative employers was the Newport News Shipyard, which refused to allow Easyride to use company time or grounds to present its ridesharing program and conduct its survey. Easyride personnel were only allowed to distribute surveys outside the company gates as the employees left work so that they would not fill out the surveys during work hours. This lack of cooperation resulted in a low survey response. Even though the Shipyard employs 20,000, only 9,000 surveys were distributed. Only 300 of these were returned, for a response rate as a percentage of total employment of .2 percent. (The mean response rate for all of Easyride's surveys was 34 percent.)

Although the Shipyard had supported the Easyride concept when the original grant proposal was written, Easyride cited several reasons for the Shipyard's subsequent reluctance to actively participate in the employee survey: 1) The Shipyard may have been concerned that filling out questionnaires would detract from productivity. 2) Working conditions (i.e., lack of desks, etc.) were not conducive to completing questionnaires. 3) Carpool and vanpool formation might siphon off patronage from Pentran's Shipyard Express Service and therefore cost them more money. (The Shipyard makes a $120,000 contribution to Pentran for operating the service and retains the fares. Lower ridership would reduce the Shipyard's revenues from the service.)

The Shipyard is the Peninsula's largest employer, and congestion caused by shift changes at the yards was an impetus for seeking the original grant. The Shipyard's decision not to fully cooperate with Easyride could therefore influence the

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* Executive Order 12191.

PTDC's perception of Easyride's effectiveness. This, in turn, could ultimately be a factor in the PTDC's decision to fund the program after the Federal grant runs out. The situation may change, however, because of several reasons. First, the Shipyard recently appointed a new person for liaison with Easyride, and this person is currently reevaluating the Shipyard's position. Second, Easyride has renewed its efforts to resurvey the site to improve the response rate.

3.4.5 Vanpool Activities

As mentioned earlier in this section, Easyride wished to become a supplier of vans for vanpoolers and had included fund requests for 24 vans in the grant amendment. UMTA's decision to grant funds for only five to seven back-up vans left Easyride without a vanpool program when it began its employment site surveys.

At the first employment sites Easyride promoted TRT (Norfolk) and private lease company vans which workers could lease directly from the suppliers. Easyride also encouraged private employers to purchase or lease vans. These, in turn, were to be leased to their employees. The employers were reluctant to subsidize vanpools, however, and no vans were purchased or leased by employers.

After the initial surveys, Easyride investigated several ways to supply vans to Peninsula commuters. The options considered were:

- marketing vans from a private lease company;
- purchasing vans with a bank loan;
- purchasing vans with a State or Federal grant; and
- marketing neighboring TRT vans.

Marketing private lease company vans was not pursued because of high lease rates. Easyride believed these high costs would reduce vanpooling's ability to compete with driving alone or carpooling. The PTDC refused to underwrite bank loans for van purchases so this option was not pursued. Easyride did not seek a State or Federal capital grant to purchase vans because of the time lag it entailed.

Easyride decided on a van marketing arrangement with neighboring TRT. This option was considered best because TRT vans were available immediately to Peninsula commuters at half the costs of leasing private company vans. TRT has a fleet of 154 vans which are leased to individuals to form vanpools. TRT's vanpool operations began in 1977 with an UMTA SMD grant.

As a result of the arrangement, Easyride markets TRT vans to individuals who work or live in the Peninsula Transportation District. This marketing is part of Easyride's brokerage activities. Even though several TRT-leased vans already were operating on the Peninsula at the time of the marketing agreement, before this, TRT did not market its vans on the Peninsula.

An outgrowth of the Easyride/TRT van marketing agreement is the van maintenance program which Easyride and TRT developed whereby TRT-leased vans can be maintained at the Pentran bus facility. (Easyride's vanpool operations and arrangements with TRT are discussed in more detail in Section 5.)

3.4.6 PTDC/TTDC Joint Service Agreement

The basis for both the van marketing and maintenance agreements was the Joint Service Agreement between the PTDC and TTDC which was signed in October 1978. The agreement permits either transit authority to operate service into, out of, or within the other authority's service area and to lease vehicles to individuals operating pools into, out of , or within the other authority's service area. It also states that either transit authority can maintain the leased vehicles for pools which originate in its transit district, regardless of which authority leases the vehicles. The agreement allows Easyride and TRT to sponsor pools which operate or originate outside of each other's service area, without jurisdictional problems. Four TRT-sponsored vans were operating to the Peninsula Transportation District from the Tidewater Transportation District at the time of the signing.

In addition to laying the groundwork for the van marketing arrangement between Easyride and TRT, the agreement facilitates regional ridesharing promotion on the Peninsula. Pentran, Easyride, and TRT have jointly sponsored ridesharing promotions on the Peninsula.

3.4.7 Legal Issues

3.4.7.1 State Law - Unlike the Knoxville transportation brokers, it has not been necessary for Easyride to research and initiate changes in state laws governing ridersharing. Virginia has been supportive of ridesharing efforts and the impetus for legislative change has come from elsewhere in the Commonwealth.

After the 1973 energy crisis, Virginia deregulated vanpools carrying up to 12 passengers (in addition to the driver.) A few years later Chrysler Corporation marketed a 15-passenger van,

requiring passage of a new law. In the spring of 1980, therefore, the Virginia Legislature passed and the Governor signed House Bill 155 which totally deregulated vanpools carrying up to 15 passengers (in addition to the driver.) The new bill also allows the driver to collect non-taxable fares to recover operating costs, including capital costs (depreciation) and lease payments. (The earlier bill also allowed the driver to collect non-taxable fares to recoup operating expenses but did not explicitly include depreciation or lease payments as an operating cost.) Impetus for House Bill 155 came from incidents that occurred in Northern Virginia in which 15-passenger vanpools were stopped for not having business licenses.

The 1981 General Assembly passed the Model State Ridesharing Law which removes all legal impediments which prohibit or hinder use of pools, and deals with institutional issues such as workmen's compensation, insurance rates, and taxes. The impetus for this bill came from the Federal Highway Administration (FHWA) which contracted with the National Committee on Uniform Traffic Laws and Ordinances to draft the law for use by state legislatures.

In addition to the initiative to change Virginia laws governing ridesharing, Easyride's legislative role also has been defined by the legislative activities of a PTDC member. This individual has been influential in Commonwealth transportation policy and has served on the Governor's Council on Transportation, has testified before Congressional committees on transportation issues, has lobbied for ridesharing programs and legislation, and has served as president of the Virginia Association of Public Transit Officials. Most recently, this PTDC member testified before Congress against cuts in Federal transit aid. Easyride works closely with this PTDC member to monitor and support ridesharing legislation, with either the PTDC member or Easyride representing the PTDC at hearings on proposed legislation.

3.4.7.2 Local Law - Easyride is aware of only one problem with local laws. An operator who ran a vanpool from nearby Mathews County to Fort Eustis was fined for failing to purchase a business license. The county requires a license of those who "undertake the transportation of passengers or property for compensation over the highways of Mathews County." The county sued the vanpool operator over the issue and won. Easyride attended the hearings in support of the vanpool operator. The Model State Ridesharing Law which took effect July 1, 1981, invalidates the Mathews County ordinance.

3.4.8 Special Services Activities

During Easyride's implementation phase, its Special Services Activities were limited to those programs developed in its planning phase. This was caused by:

. staff turnover; and

. management demands of an expanding Handi-Ride service.

The direction these special services programs were to take were determined by other events.

3.4.8.1 Staff Turnover - In July 1979, the month Easyride began its employer-based ridesharing activities, the Planner resigned and the Special Services Administrator worked with the Director on Easyride's ridesharing program. Staff energies were devoted to the ridesharing promotion to help ensure initial success. A new planner was hired in August; in October, however, the Easyride Director resigned and the Special Services Administrator became the new Director. The transition went smoothly and there were no changes in program philosophy since the new Director had had a major role in designing and implementing Easyride's programs.

A new Special Services Administrator was not hired until February 1980, and in the interim the new Director performed the Special Services Administrator's functions in addition to the Director's responsibilities. Special services activities during this time consisted of managing Handi-Ride and implementing the 16(b)(2) Procurement Policy.

3.4.8.2 16(b)(2) Procurement Policy - During this period, Easyride reviewed a 16(b)(2) application from Patrick Henry Hospital (PHH), a nursing home for the chronically ill. As an alternative to purchasing a new vehicle, Easyride recommended that PHH lease from the PTDC an unused lift-equipped minibus. PHH agreed to lease because the lease rate was favorable, the 16(b)(2) application process was seen as "cumbersome," and the chances for grant approval were poor because of the availability of PTDC vehicles.

The PHH lease is significant because it influenced the direction the 16(b)(2) Procurement Policy would take. Easyride eventually was to focus 16(b)(2) policy efforts on leasing PTDC vehicles instead of coordinating use of privately owned vehicles.

3.4.8.3 Handi-Ride - The new Special Services Administrator formerly worked as a secretary for Pentran and had a degree in marketing. The new administrator assumed the management of a

special services brokerage program that was essentially in place, and the Handi-Ride program whose management needs were expanding along with the program's ridership. As a result, the Special Services Administrator's efforts were concentrated more on Handi-Ride and less on exploring additional brokerage methods.

At this time Easyride encountered a major problem with Handi-Ride. Handi-Ride service was provided by a social service agency using PTDC vehicles and a taxi company. (Chapter 6 discusses Handi-Ride operations.) The PTDC vehicles, three old Pentran supervisor autos, frequently broke down. This caused delays in service and cancellations of trips. Consequently, Easyride applied for and received a grant from the VDH&T's State Aid for Experimental Mass Transportation and Ridersharing Projects. Grants from this program are designated as seed money to initiate programs, and are earmarked for capital and initial administrative costs. When this grant was received, Easyride used the funds to purchase new Handi-Ride vehicles.

3.4.8.4 Procurement Process - Easyride found the procurement process for the new Handi-Ride vehicles to be time-consuming and difficult. The procurement procedures had to conform to both PTDC and Commonwealth guidelines.

The dealers objected to certain Commonwealth requirements. Under Virginia's State Aid for Experimental Mass Transportation and Ridesharing Projects program, all bidders are required to submit a bid bond. This bid bond is to be not less than 6 percent of the bid to guarantee that the bidder to whom the contract is awarded will enter into the contract as stated. The program also requires the successful bidder to submit a performance bond of not less than 20 percent of the cost of the equipment. The performance bond guarantees that the equipment will function properly for a specific time period. If the equipment is faulty and the dealer fails to make repairs, the purchaser collects on the bond. To submit a bond, the seller either submits a check or purchases a bond from a bond company.

The local dealers refused to submit the bonds because of the small order size and the low profit margin on the sale of vehicles. Thus no bids were received the first time they were solicited. In response, Easyride convinced the Commonwealth to waive the bond requirements for both the cars and the vans. It also waived the performance bond requirement for the cars and reduced the percentage on the performance bond from 20 to 10 percent for the vans because of the company warranties on the vehicles. Following the Commonwealth's decision, the Special Services Administrator personally visited dealerships to obtain bids.

3.4.8.5 Vehicle Leasing Programs - The grant the Commonwealth made to Easyride had a significant effect on Easyride's special services brokerage activities. In addition to three cars for Handi-Ride's use, the grant provided for three lift-equipped vans for Easyride's use in its special services transportation coordinating efforts. Easyride requested the vans to lease to area social service agencies to obviate 16(b)(2) vehicles purchased by the agencies. Easyride believes that centralized ownership of the vehicles will facilitate vehicle coordination efforts by giving Easyride control over vehicle schedules. Also, Easyride stated that PTDC ownership will help ensure that the vehicles are maintained properly. Virginia awarded the grant to give Easyride leverage in its coordination efforts. The grant firmly established Easyride's vehicle leasing program which had begun as part of its 16(b)(2) procurement efforts with the lease to PHH.

From this point onward, Easyride's special services transportation activities were devoted to managing Handi-Ride and through its leasing efforts, coordinating Peninsula special service transportation.

4. EASYRIDE PROJECT STAFFING, BUDGET, AND ADMINISTRATION

This section discusses the staffing arrangements and costs of Easyride and its special services transportation component, Handi-Ride. Descriptions and responsibilities for each staff position are presented along with the estimated time spent on major project activities. The costs of Easyride and Handi-Ride are broken down into estimated operating costs and start-up costs.

4.1 EASYRIDE STAFFING AND POSITION DESCRIPTIONS

Easyride is staffed with four full-time positions: the Easyride Director, a Planner, a Special Services Administrator, and an Administrative Assistant. Easyride also employs a part-time Staff Assistant. Handi-Ride employs a full-time Scheduler Dispatcher, and six part-time, nonunion drivers. The use of part-time drivers has allowed Easyride to keep Handi-Ride costs to a minimum. The staff arrangement is illustrated in Figure 4-1.

4.1.1 Easyride Director

The Easyride Director is responsible for managing the Easyride program. Management responsibilities include:

- planning;
- budgeting;
- administering grants;
- managing personnel;
- overseeing program operations;
- developing and managing marketing programs; and
- monitoring State ridersharing legislation.

In addition, about one-third of the Director's time is spent on public relations efforts, which include promoting Easyride to the community and to the Peninsula Transportation District Commission (PTDC), meeting with area employers, and maintaining a dialogue with the media. Both the first and second Easyride Directors have actively used the media and community organizations to promote ridesharing and its benefits

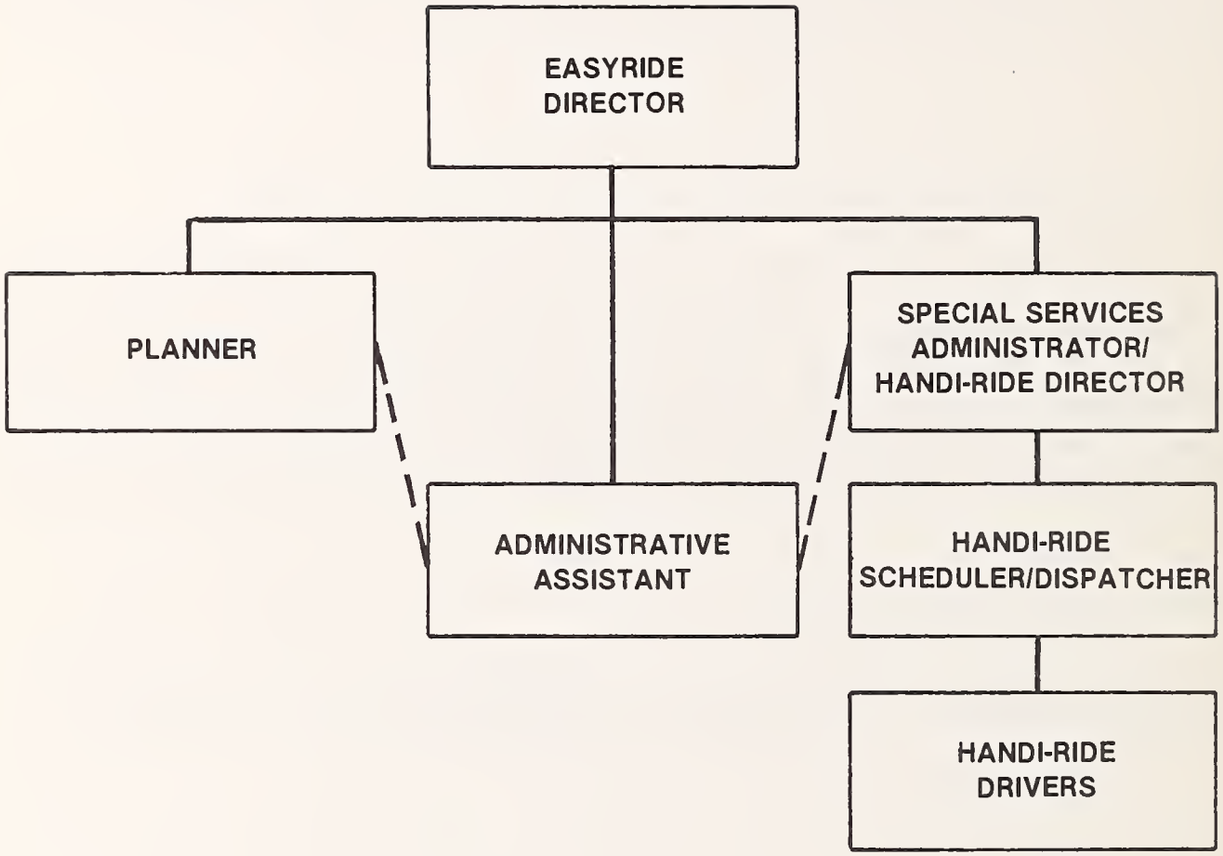

FIGURE 4-1. EASYRIDE STAFFING ARRANGEMENTS

for energy savings. Because brokerage is a relatively new concept in transportation, the Director has represented Easyride at several conferences and meetings. As part of the legislative activities, the Director testified before the Virginia Legislature on two ridesharing bills. The Director reports to the PTDC Executive Director.

4.1.2 Planner

The Easyride Planner conducts and processes employer-based surveys. In this role, the Planner:

- identifies potential survey sites;
- schedules the surveys;
- meets with the employment site ridesharing coordinator;
- oversees and helps with editing the questionnaires;
- makes recommendations to the Pentran planning staff;
- writes the survey summaries; and
- maintains contact with the employment site ridesharing coordinators.

Approximately 60 percent of the Planner's time is devoted to these activities.

The Planner is also responsible for Easyride's vanpool maintenance program. Included in these duties are keeping records on vans that use the Pentran maintenance facility, notifying drivers of preventive maintenance checks, and scheduling vanpool maintenance appointments. The Planner also responds to inquiries concerning vanpooling and sends vanpooling information to individuals who request it. These activities require 30 percent of the Planner's time.

The remaining 10 percent of the Planner's time is spent responding to telephone requests for matchlists and updating the master list of interested poolers.

4.1.3 Special Services Administrator

The Easyride Special Services Administrator directs the Handi-Ride program. Approximately 75 percent of the Special Services Administrator's time is spent on Handi-Ride managerial duties, which include:

- planning for special services;
- screening program applicants;
- answering telephone inquiries;
- coordinating and hiring staff for the demand-responsive services;
- developing and controlling the budget;
- substituting for the scheduler/dispatcher as needed; and
- compiling monthly and quarterly financial and operations reports.

Illustrative of other, ongoing management activities is a recently developed passenger grievance procedure and a Handi-Ride operations manual that is currently being developed.

In addition, the Special Services Administrator manages Easyride's special services brokerage activities. The 16(b)(2) vehicle applications are reviewed for opportunities for coordinating the use of existing vehicles, particularly Pentran vehicles, rather than purchasing new vehicles. The Special Services Administrator also negotiates the leasing of PTDC vehicles to area social service agencies and coordinates the use of these vehicles among the agencies.

4.1.4 Additional Easyride and Handi-Ride Personnel

The Easyride Administrative Assistant does the secretarial and clerical work for Easyride and Handi-Ride, and assists in distributing literature and answering questions at employer-based promotions. Easyride also employs a part-time assistant through the Federal Government's Older Americans Program. This Federal program encourages the employment of the elderly and pays their wages. The part-time assistant edits the survey questionnaires under the supervision of the Planner.

Handi-Ride employs a full-time Scheduler/Dispatcher who receives calls to reserve trips, schedules trips, and dispatches drivers. The Scheduler/Dispatcher also tallies Handi-Ride's tickets, and cross-checks the taxi operators' tickets with the monthly itemized trip lists.

Six part-time, nonunion drivers are currently used by Handi-Ride to operate its three cars and a lift-equipped van. These drivers are retired and are paid the minimum wage. Handi-Ride has found them to be not only cost effective but also sensitive to the needs of the handicapped, especially the disabled elderly.

Handi-Ride does not provide formal instruction in dealing with the handicapped or special training in handling medical needs. In case of an emergency, the cars are equipped with radios. (There has not been an emergency to date.) Drivers do attend driver training sessions held for Pentran bus drivers. The sessions include a film on driving and a lecture on safety. As mentioned above, an operations manual currently being developed for the program will include a formal training procedure for the drivers.

Handi-Ride has received only one objection from the union concerning its use of part-time nonunion drivers. Initially, Handi-Ride tried to use a Pentran lift-equipped minibus. The union, however, objected and claimed that all buses must be operated by union drivers. In response, Handi-Ride substituted for the minibus a lift-equipped van that had been originally earmarked for leasing to area social service agencies.

4.2 EASYRIDE AND HANDI-RIDE PROGRAM FINANCES

This subsection examines Easyride and Handi-Ride program costs and funding (Table 4-1).

4.2.1 Sources of Funds

Easyride was initiated in 1978 with a $250,000 Urban Mass Transportation Administration (UMTA) Service and Methods Demonstration (SMD) grant. A grant amendment secured the following year increased total UMTA funding to $570,000. In addition, Easyride obtained two grants from the Virginia Department of Highways and Transportation (VDH&T). One grant provided $87,810 for three autos and three lift-equipped vans for Handi-Ride and Easyride's social service vehicle leasing program. The other provided $4,000 for four carpool information highway signs. Easyride also used PTDC Section 5 funds to support Handi-Ride operations. PTDC Handi-Ride Section 5 subsidies totaled $58,640 for Fiscal 1981.

TABLE 4-1

EASYRIDE START-UP AND OPERATING COSTS

START-UP COSTS 6-1-78 to 6-30-79	
Labor	
Salaries	$48,700
Benefits	7,700
Total	$56,400
Marketing Materials	
Brochures & Easyride Booth	$20,000
Easyride Contribution to Slide Presentations & Projection Equipment*	4,200
Carpool Information Highway Signs*	4,000
Total	$28,200
Computer Software*	
Labor	$ 1,242
Computer Time	2,600
Total	$ 3,842
Office Supplies & Equipment	$ 1,800
Grid Map	2,000
Total	$ 3,800
Vehicles	
Six Back-up Vans	$65,000
Three Wheelchair Lift-Equipped Vans*	68,633
Three Handi-Ride Autos*	17,337
Total	$150,970
Study of the Legal Impediments to Ridesharing	$ 975
Travel	$ 4,224
Overhead (Rent, Utilities, Xerox, Pentran Services)	$15,415
TOTAL START-UP COSTS	$263,826

OPERATING COSTS	FY-80 (7-1-79 to 6-30-80)	FY-81 (7-1-80 to 6-30-81)
Labor		
Salaries	$55,913	$44,360
Benefits	9,866	7,630
Wages*	3,100	5,667
Total	$68,879	$57,657
Marketing		
Share-a-Ride Week*	$12,586	-------
(less Pentran and/ or TRT Contribution)	(6,293)	-------
Easyride Total	6,293	$ 6,851
Billboards	3,070	-------
Total	$ 9,363	$ 6,851
Data Processing		
Computer Services*		
Labor	$ 65	$ 65
Computer Time	1,560	1,560
Keypunching	3,067	3,067
Total	$ 4,692	$ 4,692
Travel	$ 5,464	$ 6,798
Overhead (Rent, Utilities, Xerox, Pentran Services)	$16,128	$21,017
Handi-Ride Operating Subsidy**	-------	76,187
TOTAL OPERATING COSTS	$104,526	$173,202

*Funds for these items came solely or in part from sources other than Easyride.
**Easyride assumed Handi-Ride service delivery in August of 1981.

4.2.2 Easyride and Handi-Ride Costs

The start-up costs were defined as labor and overhead costs incurred during the planning for future operations and the costs of all equipment and materials purchased. Operating costs were the costs incurred during the two years of Easyride operations.

4.2.2.1 Start-up Costs - The estimated start-up costs included:

- marketing materials;
- computer software modification;
- a research paper on ridesharing legislation;
- office supplies and equipment;
- six vanpool backup vans;
- three wheelchair lift-equipped vans;
- three Handi-Ride autos;
- four carpool information highway signs;
- labor;
- travel; and
- overhead.

Estimated total start-up costs were $263,826.

Not all of the start-up costs were incurred during Easyride's planning phase (first year). Costs for the vanpool brochures, Easyride/Pentran/Tidewater Regional Transit (TRT) slide presentation, six backup vans, three lift-equipped vans, three Handi-Ride autos, and four carpool information highway signs were included here even though they were incurred while Easyride operations were already under way. The first year's labor costs, travel expenses, and overhead were used as an estimate for start-up costs because the first year of the program was spent planning subsequent operations.

Also, not all of the costs shown in Table 4-1 were financed solely through the UMTA grant. The National Aeronautics and Space Administration's (NASA) facility in Hampton performs the computer work for Easyride, and the costs of modifying the computer program were donated by NASA as a public service. The computer program from the Federal Highway Administration was not

compatible with NASA's computer, so NASA spent considerable time modifying the program. The costs were based on NASA estimates of 115 hours of personnel time at $10.80 an hour, and 20 hours of computer time at $130 an hour, for a total cost of $3,842. Easyride purchased the four carpool information highway signs, three lift-equipped vans, and three Handi-Ride autos with grants from VDH&T.

The $20,000 for the marketing materials was an estimate of the amounts paid to advertising agencies to develop and print the employer, team leader, and worker brochures; it also includes costs for vanpool and Handi-Ride brochures, Easyride buttons and bumper stickers, and an Easyride booth. A total of $12,600 was spent by Easyride, Pentran, and TRT (even shares) to develop and produce a slide presentation and obtain projection equipment. Easyride's portion ($4,200) is listed as a program start-up cost. The office supplies and equipment category included the costs of desks, typewriters, stationery, and additional miscellaneous office material. Easyride uses some of Pentran's office furniture and equipment, which accounts for the low estimate. The direct costs for the grid map are also listed here. The map took Easyride several weeks to develop because a usable map of the region was not available. The six backup vans were purchased under the terms of the SMD grant amendment. During its planning stage, Easyride commissioned a study of legal impediments to ridesharing, the cost of which is listed here.

Overhead included Easyride contributions to costs for building maintenance, utilities, duplicating, and work done for Easyride by Pentran personnel (e.g., by the Finance Department).

4.2.2.2 Operating Costs and Funding - Operating costs were the estimated costs incurred by Easyride during its two-year operating phase: Fiscal 1980 - $104,526 and Fiscal 1981 - $173,202. These costs include labor, marketing, and computer costs.

Fiscal 1980 labor costs include the salaries and benefits of the four Easyride personnel. Fiscal 1981 salaries include all of the Easyride Director's and the Planner's salaries, and one-quarter of the Special Services Administrator's and two-thirds of the Administrative Assistant's salaries. The balance of the latter two salaries is included under the line item for Handi-Ride operating subsidies. The salaries are not broken out in this way for Fiscal 1980 because Easyride contracted with a taxi company and a social service agency, at that time, to deliver service. Easyride began delivering its own service in Fiscal 1981. Fringe benefits are prorated between Easyride and Handi-Ride for Fiscal 1981 in the same proportion as the salaries.

The labor costs include the wages of the part-time assistant to the Easyride Planner. The part-time assistant is hired through the Federal Government's Older Americans Program. The assistant, paid by the Federal Government, receives the minimum wage ($3.10 an hour before January 1, 1981, and $3.35 after that date), and total wages were based on an estimate of 4 hours a day, 250 days a year.

The marketing costs reflected Easyride's costs for Share-a-Ride Week, an annual ridesharing promotion, and for Easyride's billboard advertisements for promoting the survey of the Newport News Shipyard. Share-a-Ride Week was funded jointly by Pentran and Easyride during Fiscal 1980, and by Pentran, Easyride, and TRT for Fiscal 1981.

The computer work, donated by NASA, was estimated to take one hour of machine time and one-half hour of personnel time each month to produce the matchlists. Easyride contracts out for the keypunching, so the figure given is the actual expense.

4.2.2.3 Handi-Ride Costs - The Handi-Ride subsidy costs, listed as a line item in Table 4-1 (shown earlier), are itemized in Table 4-2. Also listed in Table 4-2 are the initial capital expenditures for Handi-Ride.

Initial capital expenditures, totaling $40,215, included the vehicles used in Handi-Ride service delivery which were purchased with a grant from VDH&T for which Easyride had applied. Costs of only one of the three lift-equipped vans purchased with the grant are included here because only one van is used in Handi-Ride service delivery.

The operating costs are for Fiscal 1981, starting July 1, 1980, even though Easyride began operating its own vehicles to provide service to the handicapped in August 1980. The $1,500 payment to the social service agency which provided the service in July was included as an operating expense. The $44,495 in labor costs included three-quarters of the Special Services Administrator's salary of $14,750, and one-third of the Administrative Assistant's salary of $8,500. These figures are proportionate to the estimated time each individual performs work that is related to Handi-Ride. The Scheduler/Dispatcher's full salary, starting August 1, 1980, when Easyride assumed service delivery, was included, as were the drivers' wages. Fringe benefits, proportioned to the time spent on Handi-Ride, were also included. Vehicle operating costs totaled $11,109 and taxi company fees totaling $31,169 were paid to the taxi operator who supplements Easyride's service.

TABLE 4-2

HANDI-RIDE INITIAL CAPITAL EXPENDITURES AND OPERATING COSTS

Initial Capital Expenditures	
One Wheelchair lift-equipped van*	$22,878
Three Handi-Ride Autos*	$17,337
TOTAL INITIAL CAPITAL	$40,215

FY-81 Operating Costs & Revenues[1] (7-1-80 to 6-30-81)	
Labor	
Social Service Administrator*	$11,063
Administrative Assistant*	2,833
Scheduler/Dispatcher*	7,333
Benefits	3,651
Drivers	19,615
Total Labor	$44,495
Vehicle Operating Costs	
Fuel	7,962
Insurance	2,321
Maintenance	826
Total Vehicle Operating Costs	11,109
Taxi Company Fees	31,169
Social Service Agency Fees	1,500
TOTAL OPERATING COSTS	$83,273
TOTAL REVENUE	(12,086)
OPERATING SUBSIDY	$76,187
PASSENGER TRIPS	14,416
VEHICLE TRIPS	13,043
COST PER PASSENGER TRIP	$6.12
SUBSIDY PER PASSENGER TRIP	$5.28

[1] Figures were obtained from Handi-Ride financial data. Additional expenses were added to reflect the costs to Easyride of operating Handi-Ride which were not included in Handi-Ride's financial statements. These additional costs are marked with an asterisk (*).

Fiscal 1981 total operating costs amounted to $88,273 less $12,086 in fares for a subsidy of $76,187 and an operating recovery ratio of 14 percent. Passenger trips totaled 14,416, the cost per passenger trip was $6.12, and the subsidy per passenger trip was $5.28.

Easyride uses public and private operators to provide Handi-Ride service in order to minimize program costs. Figure 4-2 compares total Handi-Ride costs per passenger trip ($6.21) with that for publicly operated service ($5.76) and taxi service ($6.92). The figures are calculated using statistics from August 1, 1980, through June 30, 1981, since Easyride began providing its own service in August 1980. Because of the absence of estimates for time spent on specific tasks, the Special Services Administrator's and the Administrative Assistant's salaries were divided equally between the two types of service.

The figures show that publicly operated service costs per passenger trip are lower than those for taxi service. Several factors contribute to the lower public service costs. Easyride schedules the trips filling its vehicles first, giving the taxi company those trips it cannot accommodate and the isolated early morning and late afternoon trips. Easyride pools riders whenever possible, while the isolated trips the taxi company serves limits opportunities for it to pool riders. Easyride and taxi service average vehicle occupancies during this period of 1.28 and 1.08, respectively, illustrate this point. Also, taxi company charges to Easyride for service are based on regular taxi fares which are priced to include capital and overhead costs. Easyride service costs, on the other hand, include only operating costs.

The fact that Easyride limits the taxi company to low mileage trips while Easyride serves the longer trips exerts downward pressure on taxi service costs per passenger trip because taxi charges are metered.

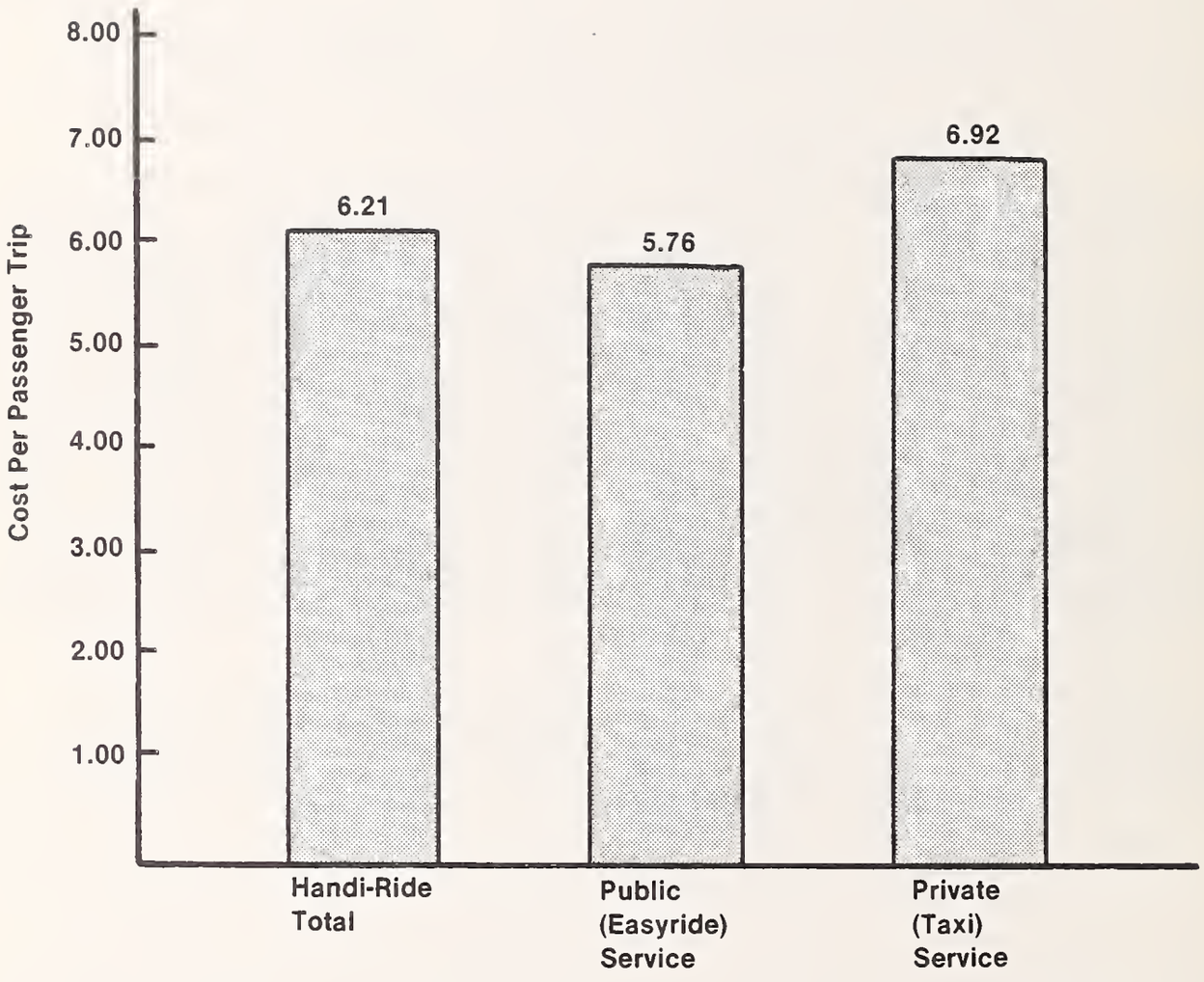

FIGURE 4-2. HANDI-RIDE COST PER PASSENGER TRIP COMPARISONS

5. EASYRIDE RIDESHARING BROKERAGE ACTIVITIES AND EFFECTS

5.1 INTRODUCTION

Easyride promotes ridesharing through four major areas of operation:

- employer-based marketing using select employees as team leaders and computer matching of potential ridesharers;
- communitywide ridesharing using a phone-in matching and information service and an annual ridesharing promotion;
- vanpool marketing of Tidewater Regional Transit (TRT) vans with vanpool maintenance and back-up van support services; and
- legislative activities including monitoring and supporting legislation which removes legal and institutional barriers to ridesharing.

The four subsections below present these areas of operation. Following these are two additional subsections which present Easyride's effects on Peninsula travel behavior and the characteristics of Peninsula vanpools.

5.2 EMPLOYER-BASED MARKETING

Easyride's primary function is to promote the employer-based ridesharing program; most of Easyride's time is spent on this. These activities focus on surveying employment sites to compile computer matchlists of individuals interested in ridesharing. When soliciting employer participation, Easyride first meets with employers to explain the program. Next, if employers agree to be surveyed, Easyride recommends a survey format and supplies promotional materials. The employer is responsible for promoting and implementing the survey. A team leader approach is used, and selected employees distribute and collect the survey questionnaires. Easyride processes the completed questionnaires and compiles the computer matchlists which, in turn, are distributed to employees by the team leaders. Easyride then analyzes the data from the questionnaires and makes recommendations to employers as to appropriate forms of ridesharing. Easyride also uses the data to recommend to Pentran bus service adjustments.

5.2.1 Employer Contacts

Easyride currently contacts employers by a letter that invites them to participate in the program. When Easyride first began its operations, it invited employers to attend group meetings at the Pentran offices, and most of the employee surveys resulted from these first meetings. Subsequent to these initial meetings, Easyride met individually with company representatives.

Both the group and individual meetings with employers typically have been with middle management personnel. Public agencies were usually represented by the ridesharing coordinators required by General Services Administration (GSA) regulations.*

At the meetings, Easyride explains its operations and goals and informs employers about Peninsula ridesharing options that are available (carpools, vanpools, buspools, subscription Pentran service, private subscription service, and Pentran fixed-route service). Easyride also provides employers with a brochure (shown in Appendix A) it developed which emphasizes the social and employer benefits of ridesharing. The brochure states that participating employers will receive the following benefits from a ridesharing program:

- reduced absenteeism;
- higher employee morale;
- reduced need for expensive parking facilities;
- improved employee relations; and
- enhanced public image.

Currently, Easyride shows a slide presentation at meetings with employers. This presentation was developed in 1980 by Easyride along with TRT. At that time, Easyride ran an advertising campaign aimed at company management that featured the slide presentation. This was done to promote interest in the project among employers. Advertisements, as shown in Figure 5-1, were placed in the local issues of Time, Newsweek, Sports Illustrated, and U.S.News and World Report. The advertising campaign did not generate significant employer interest.

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* Executive Order 12191.

TRT and EASYRIDE have a new audio/visual program to show company presidents and personnel directors. It demonstrates the profitability of getting more working commuters into fewer vehicles.

The whole idea is ridesharing. And there's a lot of money riding on its growing acceptance. Ridesharing opens up valuable commercial real estate for more profitable uses than parking lots. It leaves room for added visitor parking, which will please your business prospects. It reduces traffic congestion so clients and customers don't have to dread the trip to your place of business. It brings more people into the labor pool – people who otherwise couldn't afford commuting costs.

This 12-minute business trip could put you miles ahead.

Best of all, a ridesharing program helps your employees recoup a lot of money now being wasted on single-passenger commuting. The savings on gas, maintenance, tolls, parking and insurance can typically add up to more than $1,000 per year per employee.

If you have 12 minutes to spare, we'll show you how easily you can initiate a ridesharing program at your place of business. It could put you miles ahead in terms of customer goodwill, employee morale and business savings. To arrange a showing time, call TRT at 627-9291, or on the peninsula, call EASYRIDE at 838-RIDE.

SHARE A RIDE

TRT

easyride

FIGURE 5-1. 1980 EASYRIDE & TRT MAGAZINE ADVERTISEMENT

5.2.2 Team Leader Approach

At the request of Easyride, employers who wish to participate in the program designate a ridesharing coordinator with whom Easyride works. This is usually the Personnel Director. The ridesharing coordinator is responsible for organizing and promoting the survey. The level of effort expended on promoting the survey is determined by the employer.

The company ridesharing coordinator, in turn, selects team leaders who act as Easyride sales representatives. The team leaders distribute and collect the survey questionnaires, answer fellow employees' questions concerning ridesharing, and distribute the matchlists. Easyride recommends that team leaders be responsible for no more than 25 people and be in some sort of supervisory capacity, such as line supervisors in factories.

The team leader approach is designed for large employment sites that would otherwise require numerous, time-consuming meetings to reach every employee. These meetings would be costly for the employers in terms of lost work hours. The team leader approach minimizes work disruption, while still reaching employees. Also, the informality of peer contact encourages workers to fill out the questionnaire and consider ridesharing. Easyride's ridesharing coordinator and team leader approach is modeled after the Maryland Computeride Program (where Easyride's first Director was previously employed).

Easyride holds training sessions for team leaders at which team leader kits are distributed that contain:

- a pamphlet on ridesharing with an explanation of Easyride and the team leader's role in the survey process (Appendix B);
- a sample Easyride brochure that each employee will receive (Appendix C);
- a sample vanpool brochure (Appendix D);
- a sample Easyride questionnaire (Appendix E); and
- an Easyride bumper sticker and a button.

Typically, to demonstrate the employer's commitment to the program and to motivate the team leaders, the employer's ridesharing coordinator opens the meeting. The Easyride Director follows with a brief explanation of Easyride and the team leaders' role in the survey process. Next, an audiovisual presentation on ridesharing and Peninsula Transportation District Commission (PTDC) and Tidewater Transportation District Commission (TTDC) services in the region is

shown. Questions and answers follow the presentation. A TRT/Easyride van is displayed outside the meeting for further effect.

After orientation, team leaders distribute employee questionnaires and brochures. The brochures are short and direct. They emphasize the savings resulting from carpool or vanpool use, give a short explanation of vanpools, contain a quick guide to ridesharing, and provide a worksheet for the employee to figure commuting costs. For this computation, Easyride provides estimates of the costs of driving to work which are based on U.S. Department of Transportation (DOT) figures.[1] These figures use the 1979 cost estimates of owning and operating a standard-size car.

Following the training session, Easyride operates an information booth for several days at the site to answer questions and to distribute additional brochures. The audiovisual presentation mentioned above on ridesharing is also shown, if possible.

5.2.3 Data Processing of the Questionnaires

Easyride suggests that employers allow no more than two weeks to collect the completed questionnaires. After collection, Easyride edits them to ensure that forms are filled in correctly and translates individuals' residence and workplace locations into map coordinates. A contractor then keypunches the questionnaire results.

The National Aeronautic and Space Administration's (NASA) Langley Research Center in Hampton processes the keypunched cards at its computer facility to produce the matchlists. This is done as a public service to the community. The matchlists are then given to the ridesharing coordinator who distributes them to the employees, usually through the team leaders. If no delays are encountered, the survey process from questionnaire to matchlist distribution takes six to eight weeks.

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[1] Joseph E. Ullman, Cost of Owning and Operating Automobiles and Vans 1979, Department of Transportation, Washington, D.C., 1979.

5.2.4 Follow-up Assistance to Employers

After the matchlists are created, Easyride analyzes the data for similarities in work schedules, trip origins, and trip destinations to make ridesharing recommendations to the employers. If only a few workers commute from an area at a particular time, Easyride will recommend that the employer promote carpools. If a large group commutes, Easyride will recommend vanpools or subscription bus service. (Two employers investigated subscription bus service as a result of Easyride recommendations. They decided not to institute the service, however, because high subsidies were required to make the service attractive and low ridership was expected.) Easyride also recommends that employers institute preferential parking for poolers and flextime to encourage pooling. Ongoing promotion of ridesharing at each employment site is encouraged by providing the ridesharing coordinator with a master list of all the names on the matchlists. The coordinator can then provide names of interested ridesharers to employees who request them. Easyride also recommends that the questionnaires and brochures be distributed as part of the orientation process for new employees so that the master list can be updated. Easyride does not have a model for employers to follow for promotional efforts beyond the maintenance of a ridesharing office. The way in which promotional efforts are conducted is left up to the employer.

After the matchlists are distributed, Easyride responds to employer requests for assistance, as needed. At two sites, Easyride provided companies with proposed routes and estimated costs of subscription Pentran bus service. Easyride does not initiate follow-up contacts with matchlist recipients. Easyride assists individuals who request further information but typically has little or no contact with recipients after the matchlists are distributed.

Easyride does not have a standard procedure for maintaining contact with employers. Easyride stated that it would like to survey each employment site yearly and has conducted resurveys at several sites, both on its own and in response to employer request. Several employers, however, who had their sites surveyed in the summer of 1979 have not been recontacted. The only formal mechanism for meeting regularly with employers is the Easyride Advisory Committee. The committee is made up of local government officials and ridesharing coordinators from each site. However, meetings are held infrequently and are not well attended by employers.

5.2.5 Analysis of Trip Data for Pentran Modifications

As mentioned above, Easyride analyzes the survey data for departure times, origins, and destinations. The Easyride Planner serves on the Pentran Service Planning Committee and presents recommendations for bus service modifications at the meetings, based on the analysis of questionnaire responses and matchlists.

Based on the results of surveys at Fort Eustis and downtown Newport News, Easyride recommended changes to the schedules of buses serving these locations. Despite the service changes, ridership did not increase, probably because of substantial differences in travel times between driving a car and riding the bus. The bus serving downtown Newport News was subsequently cancelled and the PTDC recently eliminated the bus to Fort Eustis.

In a similar Pentran service modification, a route was extended to serve the Bendix site. This route was also subsequently cancelled because of low ridership.

5.3 COMMUNITYWIDE RIDESHARING

5.3.1 Ridesharing Services

Easyride's principal communitywide activity is a phone-in service through which individuals may request information concerning ridesharing and names of individuals interested in pooling. Easyride uses master lists from its surveys of employment sites as its source of names and compiles an additional list of interested ridesharers who have called Easyride. The names are given over the phone because Easyride does not have on-line access to a computer from which to print matchlists to send callers. To make the service more easily accessible and known, Easyride established a telephone number ending in R-I-D-E. It also placed four highway carpool information signs (with the telephone number) at several locations along I-64, the Peninsula's main arterial.

Also as part of its ridesharing information services, Easyride has responded to requests from community groups for assistance in finding transportation alternatives. Easyride helped two parent groups investigate transportation options for students attending Eaton Junior High School. Even though the Hampton School Board has a contract with Pentran to provide service to its schools, service was not provided to Eaton because, as an experimental school, attendance was voluntary. School officials and parent groups requested Easyride and

Pentran to meet with them to discuss several options. These included chartered Pentran service and Easyride computer matching of students to help arrange carpools and vanpools. Because of the cost and impracticality of the options, Easyride recommended that the parent group consider private carriers and gave them a list of companies. As a result, a private operator now provides the service. Also, the Transportation Committee at Langley Air Force Base (LAFB) contacted Easyride and Pentran concerning transportation to Eaton from the base. Easyride again recommended private carriers. LAFB requested bids, and a contract was awarded.

Easyride worked to identify transportation alternatives for passengers on a Pentran express bus route to the Newport News Shipyard that was cancelled because of the loss of a subsidy from a neighboring county. Easyride notified a private bus company (already providing service to the Shipyard) of the service cancellation and its times and routes. Shipyard workers who called Easyride or Pentran concerning the cancelled service were then referred to the private bus company. Also, this private service was advertised in flyers that notified passengers of the service cancellation. As a result, the private bus company now provides this service.

Easyride also referred callers to a buspool which formed as a result of the above service cancellation. A shipyard worker who leased a TRT van before the route cancellation contacted TRT about leasing buses to replace the cancelled service. TRT leased the individual a bus and an additional van, and Easyride helped the individual to find passengers.

5.3.2 Marketing

To encourage ridesharing on the Peninsula, Easyride sponsors an annual promotion called Share-a-Ride Week. This promotion was originally sponsored to ensure media coverage of the signing of a joint service agreement between the TTDC and the PTDC. Share-a-Ride Week has evolved from this into an annual marketing campaign for Easyride and Pentran. The rationale behind marketing to the general public is:

- to promote ridesharing;
- to improve the image of public transit on the Peninsula; and
- to inform people of the transportation services available.

For the 1980 Share-a-Ride Week, Easyride and Pentran sponsored a local radio station promotion in which it gave away 1,800 T-shirts to carpoolers and vanpoolers. A newspaper advertising campaign featuring the T-shirts (Figure 5-2) accompanied the promotion. For the 1981 Share-a-Ride Week, Easyride, Pentran, and TRT joined with Hardees' fast food chain and sponsored a promotion. A local radio station gave ridesharers Easyride, Pentran, and TRT travel mugs. For several weeks, Hardees provided unlimited free coffee to mug carriers.

In addition to this annual at-large promotional effort, the Easyride staff members have participated in local media talk shows to discuss the program and topics affecting public transportation. Easyride and Pentran also have jointly sponsored information booths at local fairs and events.

5.4 EASYRIDE VANPOOL MARKETING

Easyride acts as a broker for leasing TRT vans on the Peninsula, and these vans are marketed as part of Easyride's ridesharing promotion. Easyride distributes vanpool literature at employment sites, answers telephone inquiries, and sends information packages, on request.

In 1980, Easyride began managing a van maintenance program for vans leased from TRT. Service is performed at the Pentran bus maintenance facility. This program makes van maintenance and repairs more convenient for drivers who work or live on the Peninsula, thereby encouraging vanpooling on the Peninsula. Easyride has six back-up vans which drivers may borrow while their vehicles are serviced. Twenty-two vans currently are serviced at the Pentran facility and TRT reimburses Pentran for the maintenance costs.

The basis for the Easyride and TRT marketing arrangements is the Joint Service Agreement that the PTDC and the TTDC negotiated in October 1978. The agreement permits each transit authority to operate service into, out of, or within the other authority's service area. It also states that each transit property can maintain leased vehicles, regardless of which authority leases the vehicles.

5.4.1 TRT Van Lease Arrangements

Individuals who contact Easyride regarding van leasing are referred to TRT which, in turn, makes the actual arrangements. TRT performs a credit check on the applicant and meets with this person to explain the lease. The lease requires a $150 van deposit and designation of a TRT-approved back-up driver. The

NEXT WEEK, DON'T LOSE YOUR SHIRT DRIVING TO WORK ALONE.

FREE DURING RIDESHARING WEEK

During Ridesharing Week, July 13-19, we'll be giving some special incentives to get you to try sharing a ride with a neighbor or two. Or more. Not only can you save yourself a bunch of gas money, you could drive home with a new shirt on your back.

Listen to WGH-AM or 2WD for details. But the T-shirt can be yours only if you're in a car, van or bus with more than one commuter. Give ridesharing a week's trial. And for more information about more permanent ways to save, give us a call at 838-RIDE. Penton eosynde

FIGURE 5-2. 1980 RIDESHARING WEEK NEWSPAPER ADVERTISEMENT

driver and the back-up driver must each obtain a chauffeur's license which requires an eye examination and a fee payment. In addition, the driver and back-up driver must view a defensive driving film, shown at Easyride or TRT offices.

The driver leases the van for a flat monthly fee which covers depreciation (vans are depreciated over four years), plus $.07 a mile which covers maintenance costs. The leases range from $109 a month for a 1977 twelve-passenger van to $216 a month for a 1980 fifteen-passenger van.

The driver may elect to be covered under TRT's umbrella insurance policy for $68 a month for pre-1980 vans and $74 a month for 1980 vans. Bodily injury liability coverage under the TRT policy is $500,000 per person/$500,000 per occurrence, and personal property liability coverage is $50,000. TRT is protected by a $2-million indemnity policy. There is a $100 deductible clause for damage to the vans as a result of accidents and a $250 deductible clause for damage to the vans because of other causes.

If a driver decides to obtain insurance privately, the minimum coverage is $500,000 per person/$500,000 per occurrence for bodily injury and $50,000 for personal property. Also, the contract states that if the driver purchases insurance privately, the TTDC is not liable for any damages incurred during van use, and the driver is liable for theft or damage to the van. None of the vanpool drivers has private insurance.

5.4.2 Van Upkeep, Fares, Benefits, and Operators

The driver is responsible for keeping the van clean; TRT or Easyride is responsible for maintenance. The driver sets and collects fares (it is recommended that the drivers collect fares monthly in advance) and, as a benefit, keeps any revenues above the costs of the van. For an added benefit, the driver and his spouse have personal use of the van within a 100-mile radius of their home. (TRT insurance does not cover vans beyond the 100-mile limit.) The lease can be terminated by either party with a 30-day written notice.

Another current Easyride activity includes assisting the Southeastern Virginia Vanpool Association in locating private vanpool operators. Easyride, working through company ridesharing coordinators, uses employer newsletters to promote the Association.

5.5 LEGISLATIVE ACTIVITIES

5.5.1 Commonwealth Legislative Activities

Easyride monitors and supports Commonwealth ridesharing legislation and works closely with a PTDC member in these efforts. As mentioned in Section 3, Easyride and the PTDC member have spoken at public hearings on proposed ridesharing legislation and testified before the Virginia legislature in support of two ridesharing bills that passed the legislature. The first of these, Virginia House Bill 155, was signed in April 1980. This bill allows deregulated pools carrying up to 15 passengers (in addition to the driver) to collect tax-free passenger payments to recover operating costs, capital costs, and lease payments. The bill previously in effect deregulated pools carrying up to 12 passengers and allowed nontaxable fares to recoup operating expenses but did not explicitly include depreciation or lease payments. The second bill, House Bill 1091, was based on the Model State Ridesharing Law and was signed into law in April 1981.* The law removes legal impediments to the use of ridesharing pools and deals with institutional issues such as workmen's compensation, insurance rates, and taxes.

Early in the demonstration, Easyride commissioned a study by an area law student on the legal impediments to ridesharing. The paper, a general review of existing legislation, did not provide a basis for ridesharing recommendations.

5.5.2 Local Legislative Activities

As an outgrowth of the legal research mentioned above, Easyride developed a proposed municipal ordinance. This ordinance called for instituting a downtown parking fee and for using city vehicles for ridesharing during an energy emergency. The ordinance, however, was not acted upon. Easyride also developed an energy emergency transportation plan at the direction of the PTDC in response to the threatened 1979 fuel

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* The Model State Ridesharing Law was drawn up by the National Committee on Uniform Traffic Laws and Ordinances under contract to the Federal Highway Administration for use as a guide. This model law shows how to remove legal impediments to the use of pools and deals with institutional issues such as workmen's compensation, insurance rates, and taxes.

shortages. The contingency plan was divided into four phases, with each phase addressing a more severe shortage. One of the phases, designed for a mild shortage, mirrored the Easyride program. This plan was adopted by the cities of Newport News, Hampton, and Poquoson; the PTDC; and the Peninsula Planning District Commission. Unlike larger metropolitan areas, however, the Peninsula did not experience long gasoline lines or severe shortages, so the plan was never implemented.

In addition, legal action initiated by Mathews County, Virginia, against a vanpool driver was monitored by Easyride. The county initiated court proceedings against a vanpool driver who refused to purchase a county business license. Future Easyride activities such as this will not be necessary because the new Model Ridesharing Law (effective July 1, 1981) exempts pool drivers from local ordinances that discourage ridesharing (like the Mathews County ordinance).

5.6 EASYRIDE EFFECTS ON PENINSULA RIDESHARING

Easyride's ability to influence an employee to become a ridesharer depends in part on employer cooperation in the survey process. This subsection begins with a description of Easyride's employment site market penetration. Carpools and vanpools operating at these sites are then analyzed with respect to Easyride's role in their formation process. Travel characteristics of these carpools and vanpools are also presented. The latter portion of this subsection looks at Easyride's influence on and the working characteristics of the TRT-leased vanpools that are operating on the Peninsula.

5.6.1 Easyride Market Penetration

Total employment on the Peninsula is estimated at 110,000. As of July 1, 1981, Easyride had distributed questionnaires at 40 Peninsula employment sites having a total of 54,193 employees. These employees completed 14,404 questionnaires. This represented 13 percent of total employment on the Peninsula and 27 percent of employment at surveyed sites. The completed questionnaires were used to generate 19 computer matchlist runs. (Some of the sites were too small for individual runs.)

Of those completing an Easyride questionnaire, 5,823 (40 percent) requested a matchlist and 8,581 (60 percent) did not, as illustrated in Figure 5-3.

Easyride's ridesharing promotion was targeted at the Peninsula's largest employment sites. Four of the Peninsula's five largest employers participated in the Easyride program.

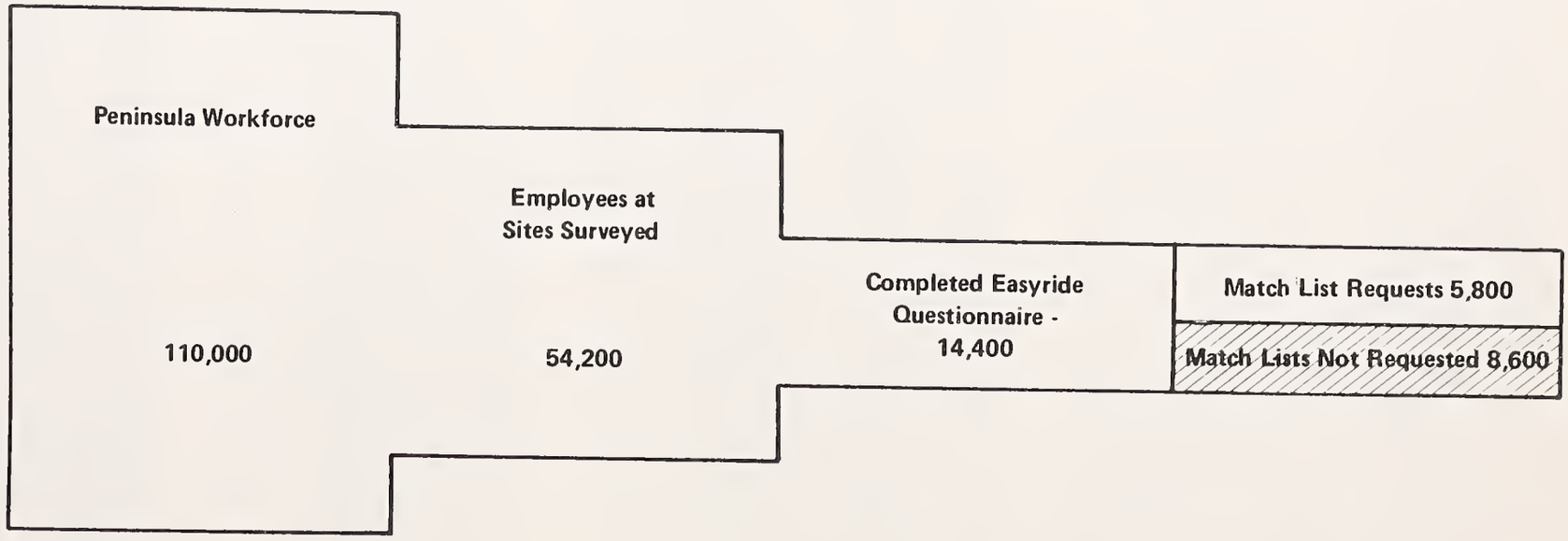

FIGURE 5-3. EASYRIDE COVERAGE OF PENINSULA EMPLOYMENT FORCE

These sites (NASA, Fort Eustis, LAFB, and the Newport News Shipyard) accounted for 67 percent of the employment at surveyed sites and 32 percent of employment on the Peninsula. Two of the sites, Fort Eustis and NASA, were surveyed twice. Thus, six of the nineteen matchlist runs were executed for the largest sites.

Federal Government worksites are well represented among the sites where Easyride promoted ridesharing. Eight of the nineteen matchlist runs were executed for Federal Government sites. The cooperation of Federal Government administrators may have been influenced by GSA regulations which require the sites to promote ridesharing.

5.6.1.1 Role of Employer Support in Employee Participation - One of the reasons Easyride developed an employer-based ridesharing program was its belief that employer support would increase employee participation in Easyride's matchlist creation process. Summary statistics of the employer-based questionnaires support this conclusion. (The statistics from all of the Easyride surveys are presented in Appendix F.) The percent of Easyride questionnaires returned as a share of total site employment was higher for sites with strong employer support than for sites with limited employer support (Figure 5.4). The mean return rate for sites with strong employer support was 43 percent compared with a mean of 13 percent for sites with limited employer support.

Sites characterized as those with strong employer support typically used team leaders to distribute the Easyride questionnaires and promoted the matchlist process through special activities or articles in company newsletters. For example, the Badische Company, which paid its team leaders overtime for attending team leader meetings, achieved a questionnaire return rate of 76 percent. During the survey week, Badische also allowed Easyride to maintain an information booth in the employee cafeteria, and the firm's executive committee rode bicycles to work to demonstrate the company's commitment to fuel conservation.

NASA, at which 44 percent of the employees filled out Easyride questionnaires, did not use team leaders but heavily promoted ridesharing. The first Easyride survey at NASA was part of a program organized by NASA to promote ridesharing and was held during work hours. The program included presentations on ridesharing, Easyride, and leasing programs of private bus and van services; information booths on NASA's ridesharing services; and an outdoor display of vans and Pentran buses. Easyride

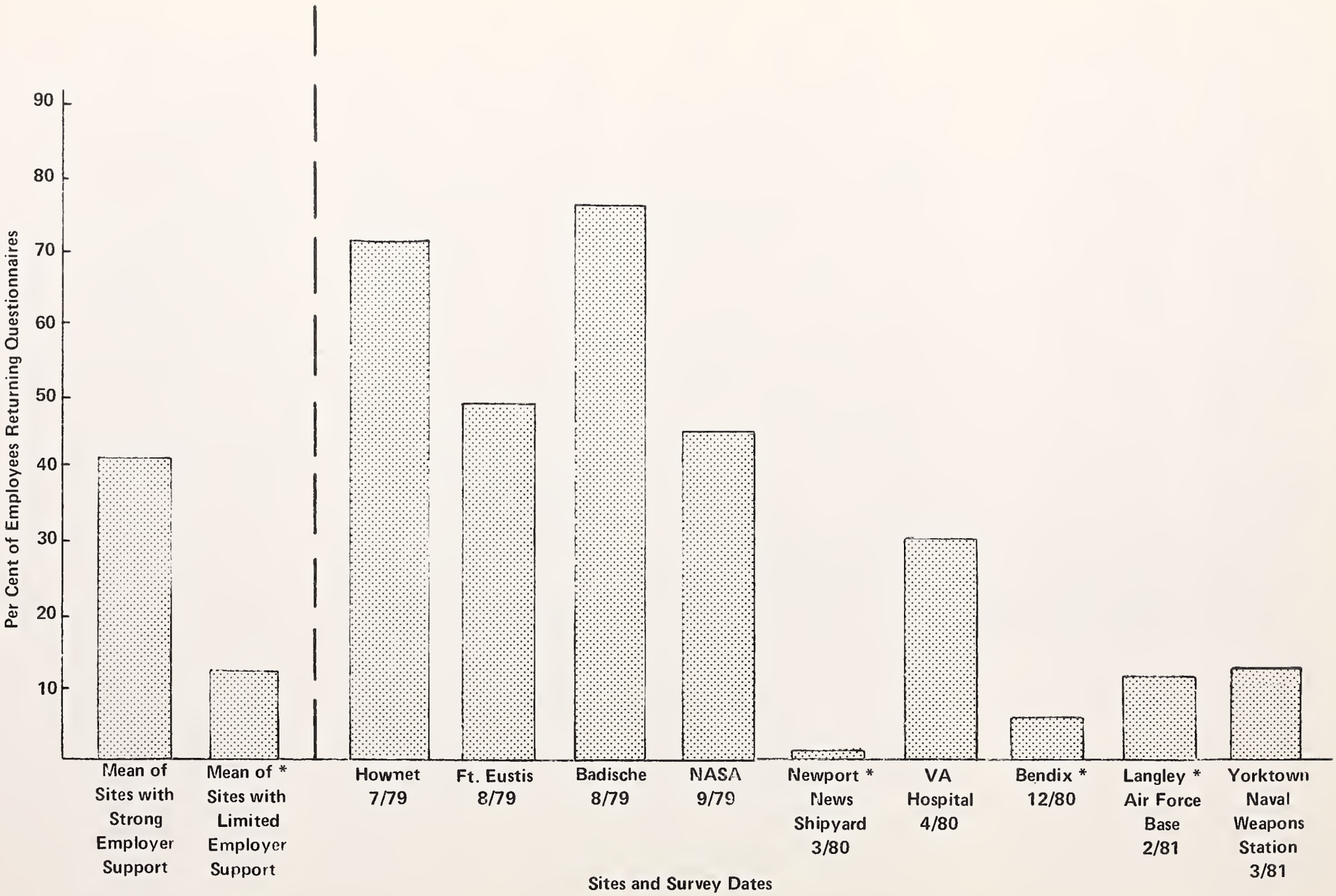

FIGURE 5-4.EMPLOYER SUPPORT AND QUESTIONNAIRE RETURNS

questionnaires were distributed at the presentation and also were mailed to each NASA and contract employee;* completed questionnaires were returned to the ridesharing coordinator through internal mail. NASA maintains an ongoing commitment to ridesharing through its ridesharing coordinator who spends considerable time on ridesharing services and promotion.

In contrast to sites with strong employer support, sites with limited commitment did not permit Easyride to use team leaders and did not expend resources to support Easyride activities. Bendix did not want Easyride to use team leaders. Instead, Easyride left questionnaires at the personnel office to be distributed through departmental supervisors and manned an information booth in the employee cafeteria for three days. Only 6.4 percent of Bendix's employees returned questionnaires. Easyride believed that the unstructured way of distributing and collecting questionnaires contributed to the low response rate.

At the Newport News Shipyard, Easyride personnel were allowed to distribute questionnaires only at the gates as employees were leaving. Respondents were to mail completed questionnaires to Easyride in postage prepaid envelopes that were provided. Even though Easyride distributed approximately 9,000 questionnaires to 20,000 employees, only 300 (1.5 percent) were returned.

Team leaders were used at Langley Air Force Base but attendance at the team leader meetings was voluntary. Many of the team leaders were absent so coverage at the site was incomplete. As a result, questionnaires were returned by only 12 percent of the employees. In contrast, management at Fort Eustis strongly supported Easyride and required attendance at team leader meetings. As a result, 48 percent of the employees returned questionnaires.

An apparent contradiction to the results presented above was the matchlist request rate at sites with strong and weak levels of employer support. As shown in Figure 5-5, only 38 percent of the employees who returned a questionnaire at three sites with strong employer support requested a matchlist. Conversely, 86 percent of Newport News employees and 66 percent of Bendix employees who returned questionnaires requested matchlists. The mean matchlist request rate at employment sites with strong employer support was 44 percent of submitted questionnaires compared with a mean of 63 percent for sites with limited support.

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* Two-fifths of NASA's employment force are contract employees.

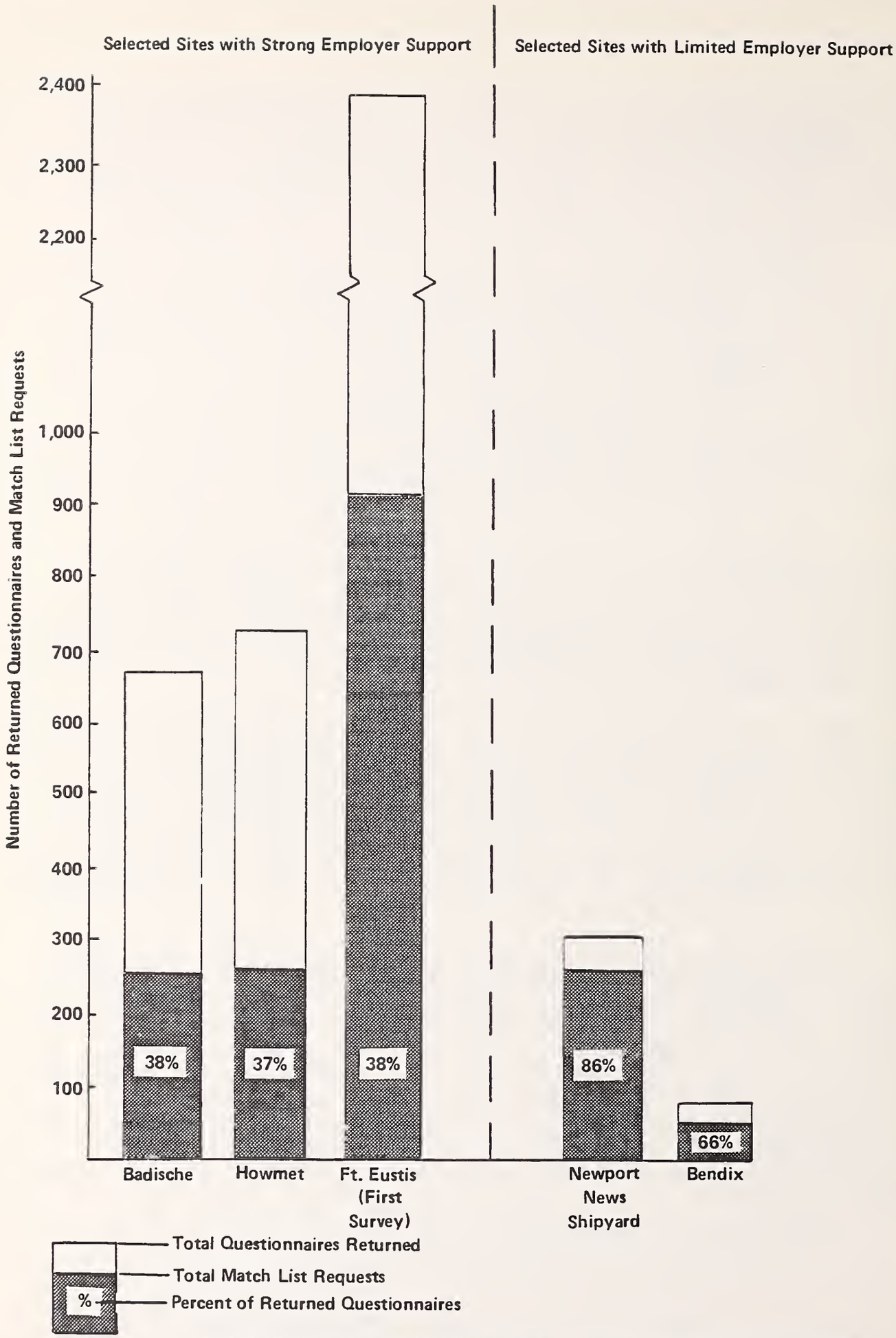

FIGURE 5-5. EMPLOYER SUPPORT AND MATCHLIST REQUESTS

One explanation for this relationship was that returning matchlists at sites with limited employer support took more individual initiative than at sites with considerable employer support. Those who wanted matchlists, therefore, would be more likely to make the effort than those who did not want matchlists. For example, workers at the shipyard had to take their questionnaires home to fill out and then return them to Easyride by mail. This required more individual effort than completing a questionnaire at work and submitting it to a team leader.

Because of the timing of the evaluation survey, the project team was unable to test whether those who completed questionnaires at sites with limited employer cooperation were also more likely to join carpools and vanpools than those from sites with strong employer cooperation. Easyride promotions at most of these sites were held near the time of the evaluation survey and the questionnaires had not been processed.

The matchlist request rate as a share of total employment is more important than the percent of returned questionnaires with matchlist requests. In this respect, sites with strong employer support averaged a 16-percent matchlist request rate (as a share of total employment) compared with a 4-percent rate for sites with limited employer support.

5.6.1.2 Other Factors Affecting Employee Response Rates - In addition to strong employer support, it appears that the timing of Easyride's site promotions influenced employee participation. As shown earlier in Figure 5-4, the surveys with the highest participation rates were conducted in the summer of 1979 during the gasoline shortage. The response rates at Howmet and Badische, which were surveyed during the shortages, were 73 percent and 76 percent, respectively. More recent surveys conducted at the Veterans' Administration Hospital and Yorktown Naval Weapons Station, both with strong employer support, had response rates of 30 percent and 13 percent, respectively.

The number of surveys at an employment site also affected employee response rates. As of July 1, 1981, Easyride had completed resurveys at three sites, and the resurvey participation rates dropped sharply from the sites' first surveys. In NASA's first Easyride survey, 44 percent returned questionnaires; in the second one, 15 percent returned questionnaires. Comparable figures for Fort Eustis and the Veteran's Administration Hospital were 48 percent dropping to 41 percent, and 30 percent dropping to 18 percent, respectively.

5.6.2 Employee Carpool and Vanpool Formation

To determine if Easyride influenced commuters' work-trip mode, a telephone evaluation survey (Appendix G) was administered in March 1981 to a random sample of Easyride questionnaire respondents. The survey results represented the behavior and attitudes of commuters who completed Easyride questionnaires between July 1979 and December 1980. The telephone survey produced 813 usable responses, representing 7.13 percent of the survey population--the total 11,399 usable questionnaires that Easyride had in its master file at the time of the survey.

Unlike the master files of other brokerage programs such as those in Minneapolis and Knoxville, the Easyride master file contains the names and some work-trip characteristics of all who completed Easyride questionnaire forms, regardless of whether a matchlist was requested. (A name was put on a matchlist and the matchlist then sent to a questionnaire respondent only if it was requested.) The data were collected for potential use in planning Pentran routes. All of the people in the master file who requested matchlists had at least six months between matchlist distribution at their employment site and the evaluation survey (except 728 people at the NASA site where matchlists were distributed in February 1982--about one month before the evaluation survey).

The survey results were generally stratified into two major groups:

- persons who on their Easyride questionnaire requested a ridesharing matchlist; and
- persons who on their Easyride questionnaire did not request a ridesharing matchlist.

The work-trip data in the Easyride master file lists the individual's mode at the time of the Easyride promotions. Thus, the data reported in this study represents both before-Easyride and after-Easyride conditions. Some of the observed changes can be attributed to Easyride project activities, while other changes reflect individual initiatives in work-trip ridesharing.

5.6.3 Aggregate Mode Changes

During the 22-month period represented in the evaluation survey, 229 (27 percent) of the 813 respondents changed their work-trip travel mode. About half of these (108) were previous drive-alone commuters who became carpoolers. An additional 16 solo drivers switched to the bus or another travel mode (e.g.,

riding a bicycle, or walking). At the same time, 52 previous carpoolers became solo drivers, started using the bus, or used other transportation. These changes are summarized in Figure 5-6.

The modal distribution for the entire sample showed an increase in the rate of carpooling. Figure 5-7 presents the sample mode split, as recorded in the Easyride questionnaires and later in the evaluation survey. Statistically, there is at least a 99-percent probability that an increase in ridesharing occurred.*

5.6.4 Factors Accounting for Carpool and Vanpool Formation

The work-trip mode changes described above indicate that more people were ridesharing at the end of the 22-month period than at the beginning. The fundamental question that this evaluation endeavors to answer is whether or not these changes occurred because of Easyride's activities at employment sites or if they mainly reflect individual initiative, unrelated to the Easyride project.

To answer the question of how pools are formed, three groups of ridesharers (i.e., carpoolers and vanpoolers) are identified in the survey sample:

- persons who used an Easyride matchlist to start a new carpool or vanpool (or join an existing one);
- persons who believed that Easyride's literature, presentation, or promotional activities influenced them to start or join a pool; and
- persons who started or joined a pool on their own initiative.

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* Non-parametric statistics were used to determine if the level of carpooling increased. Parametric statistical analysis is based on several assumptions including the independence of randomly drawn samples. For the data collected for this study, the "after" measure was directly dependent on the "before" measure because the same individuals were observed at two points in time. Parametric analysis therefore was not used. Nonparametric analysis provides tests appropriate for dependent samples.

		CURRENT MODE		
		Drive Alone	Carpool or Vanpool	Bus or Other
PREVIOUS MODE	Drive Alone	455 (56.2)	108 (13.3)	16 (2.0)
	Carpool or Vanpool	52 (6.4)	150 (18.5)	1 (0.1)
	Bus or Other	18 (2.2)	8 (1.0)	2 (0.2)

Total Observations = 810; 3 persons did not report current mode.

( ) = Percent of Total Observations

FIGURE 5-6. TOTAL MODE CHANGES

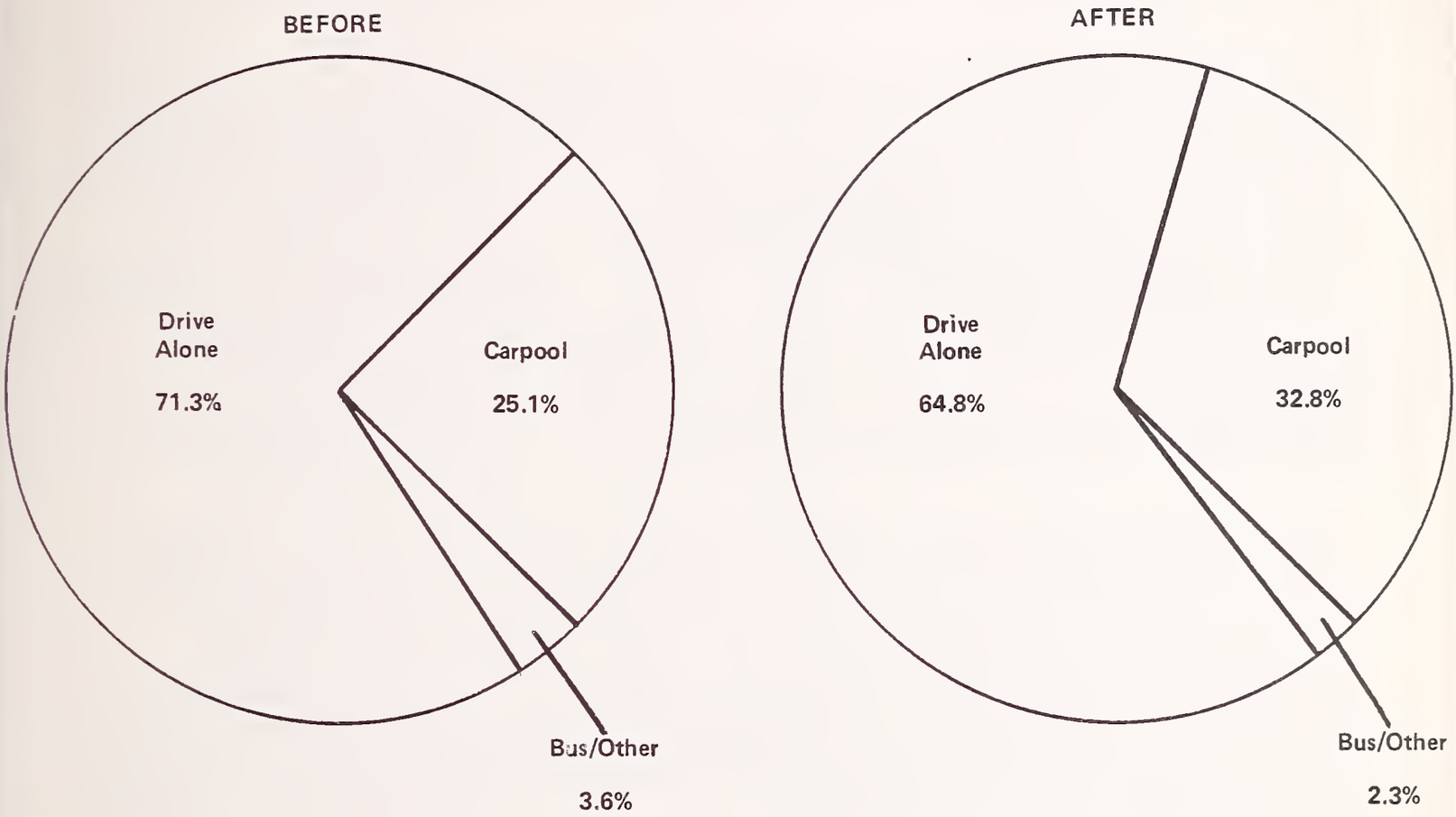

FIGURE 5-7. SAMPLE MODE SPLIT BEFORE AND AFTER EASYRIDE PROJECT

5.6.5 Ridesharing Resulting From Easyride Matchlists and Promotions

Easyride's primary technique to foster ridesharing is the compilation and distribution of computer matchlists. Figures 5-8 and 5-9 present the sample respondents' changes in work-trip mode choice according to whether or not they requested a matchlist.

In general, the two groups exhibit the same overall patterns of mode changes, with about 12 to 15 percent of total observations in each group being previous solo drivers who became ridesharers.

To improve our understanding of Easyride's role in the pool formation process, previous solo drivers who became ridesharers were asked if their decision to pool was encouraged or fostered by Easyride's activities. Previous solo drivers who requested matchlists were first asked if they used their matchlist and if not, did Easyride's literature or promotional activities contribute to their ridesharing decision. Previous solo drivers not requesting matchlists were asked if Easyride's promotional activities or literature was a factor in their ridesharing decision. The results of these questions are tabulated in Figure 5-10. (Note that sixteen solo drivers from both groups became temporary ridesharers but reverted to driving alone by the time of the evaluation survey.)

The majority (52.3 percent) of solo drivers in the sample who became ridesharers did so on their own initiative. Easyride literature and promotions were cited by 23.3 percent as having caused their mode switch. Matchlists, however, were cited by only 13.8 percent of all solo drivers switching to pools and by less than a third of solo drivers who requested a matchlist and ultimately became ridesharers. Of the total 239 previous solo drivers in the sample who requested matchlists, 16 (6.7 percent) used their matchlists to become ridesharers during the evaluation survey period.

Even though matchlists were not widely used by the above group, matchlist usage by previous ridesharers to find or start new pools was slightly higher. Of the 73 persons in the sample who were ridesharers at the time of the Easyride promotions, 15 (20.5 percent) used matchlists to join existing or start new pools.

5.6.6 Ridesharing Resulting from Individual Initiatives

The number of carpools and vanpools formed by survey respondents who did not cite Easyride as a factor contributing to their mode switch was somewhat greater than the number who

		CURRENT MODE		
		Drive Alone	Carpool or Vanpool	Bus or Other
PREVIOUS MODE	Drive Alone	182 (51.0)	52 (14.6)	5 (1.4)
	Carpool or Vanpool	33 (9.2)	73 (20.4)	1 (0.3)
	Bus or Other	4 (1.1)	5 (1.4)	2 (0.6)

Total Observations = 357
( ) = Percent of Total Observations

FIGURE 5-8. WORK-TRIP MODE CHANGES BY MATCHLIST REQUESTORS

		CURRENT MODE		
		Drive Alone	Carpool or Vanpool	Bus or Other
PREVIOUS MODE	Drive Alone	273 (60.3)	56 (12.4)	11 (2.4)
	Carpool or Vanpool	19 (4.2)	77 (17.0)	0 (0.0)
	Bus or Other	14 (3.1)	3 (0.7)	0 (0.0)

Total Observations = 453
( ) = Percent of Total Observations

FIGURE 5-9. WORK-TRIP MODE CHANGES BY PERSONS NOT REQUESTING A MATCHLIST

FACTOR	MATCHLIST REQUESTORS		MATCHLIST NOT REQUESTED		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
Easyride Matchlist	16	28.1	Not Applicable		16	13.8
Easyride Promotion, Literature	9	15.8	18	30.5	27	23.3
Driver's Own Initiative	20	35.1	41	69.5	61	52.3
No Answer	12	21.1	—	—	12	10.3
Total	57	100	59	100	116	100

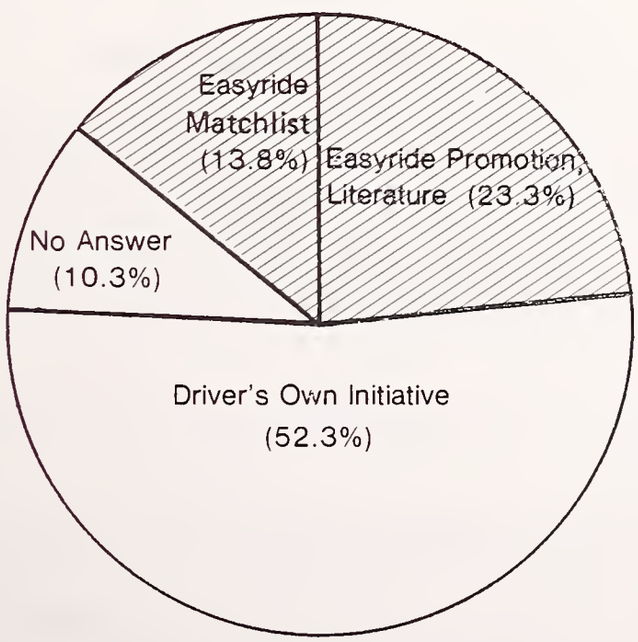

FIGURE 5-10. FACTORS ACCOUNTING FOR SOLO DRIVERS' SWITCH TO RIDESHARING

did. To understand how these pools were formed, Peat Marwick studied their composition with respect to family members, co-workers, and neighbors. Also, current ridesharers were asked how they would seek new members.

Among new ridesharers not requesting a matchlist or using Easyride services, the most common pool partner was a co-worker (Table 5-1). Similarly, when asked how they would look for new commuting partners, 58.5 percent indicated they would ask co-workers, 18.5 percent would ask neighbors, 14.5 percent would use an Easyride matchlist, and the balance would use some other technique. By contrast, only 48.5 percent of the Easyride-influenced ridesharers indicated they would ask co-workers, while 33.3 percent said they would use a matchlist to look for new commuting partners. Table 5-2 shows replacement strategies for the different groups of ridesharers.

5.6.7 Summary of Mode Changes

Figure 5-11 summarizes all mode changes and Easyride's influence on these changes within the two groups of respondents: matchlist requestors and persons not requesting a matchlist. Carpool attrition, or the change in work trip from ridesharer to solo driver (or another mode), was an important component of the total mode changes that occurred during the survey period. Of the 203 respondents who were ridesharers at the beginning of this period, 52 (25.6 percent) became solo drivers by the end. Table 5-3 shows the distribution of responses when previous ridesharers were asked why they stopped ridesharing; convenience and work schedule conflicts were most often cited.

Reasons for Limited Matchlist Usage

One of the reasons for the limited effect of matchlists on pool formation was the low rate of contacts initiated by matchlist recipients. Likely factors, examined as contributing to limited matchlist usage, were number of potential commuting partners on the matchlists and extent of their distribution. Even though 358 persons requested a matchlist, the evaluation survey results indicated that:

- 20.9 percent of requestors did not receive a matchlist;
- 4.5 percent of requestors did not know if they received a matchlist; and
- 5.8 percent of the matchlists had one or no names on them.

TABLE 5-1

PERCENTAGE OF CARPOOLERS SHARING RIDES
WITH NEIGHBORS, FAMILY, CO-WORKERS

	All Carpools	New Non-Easyride Influenced Carpools
Neighbors	24.0 %	24.0 %
Family Members	15.7 %	17.5 %
Co-workers	72.3 %	71.5 %

TABLE 5-2

REPLACEMENT AND FORMATION METHODS FOR EXISTING CARPOOLS*

	All Ridesharers	All Easyride Influenced Ridesharers	All Matchlist Requesting Ridesharers	All Easyride Influenced Matchlist Requesters	All Non-Easyride Influenced Ridesharers**
Ask Neighbors	19.5	22.7	16.9	17.5	18.4
Ask Co-Workers	56.2	48.5	52.3	40.0	58.7
Matchlist	18.7	33.3	30.0	42.5	13.9
Workplace Carpool Office	4.5	6.1	4.6	5.0	4.0
Advertise in Newsletter	4.9	7.6	6.2	12.5	4.0
Rider Board	6.4	7.6	4.6	7.5	6.0
Advertise in Local Paper	0.4	0	0.8	0	0.5
Other	6.4	4.5	5.4	7.5	7.0

*More than one answer was permissable, so the sum of percentages is not equal to 100%.

**Includes matchlist requesters who did not utilize their matchlist.

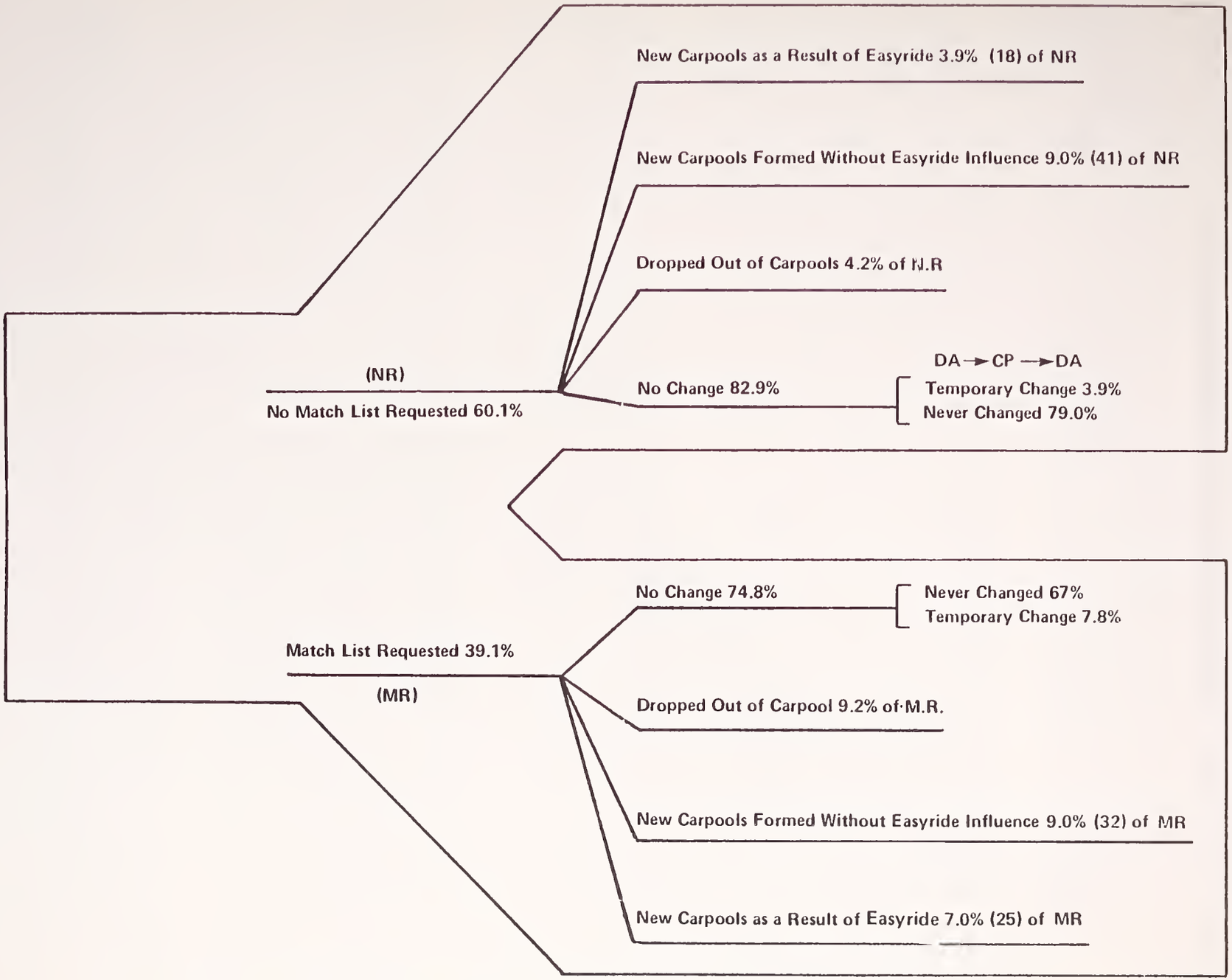

FIGURE 5-11. SUMMARY OF MODE CHANGES AND INFLUENCES DURING SURVEY PERIOD

TABLE 5-3

WHY PEOPLE STOPPED RIDESHARING

Reason	Number of Respondents	Percent of Respondents
Bought Car	2	3.8
Changed Work Plan or Residence	1	1.9
Needed Car for Work	1	1.9
Had Rotating Shift	2	3.8
Worked Overtime	4	7.7
Had Irregular Hours	12	23.1
Thought Inconvenient	12	23.1
Found Pooling Unreliable	5	9.6
Thought Pooling Took Too Long	1	1.9
Did Not Like Ridesharing-mates	0	0
Other	24	46.2
Total	64	100

The fact that a number of those who requested a matchlist did not receive one, or the matchlist they did receive did not contain many names, partially explains limited matchlist usage.

Of the 267 persons who did receive a matchlist, two-thirds did not attempt to contact anyone on their list. Only 88 respondents indicated they had tried to contact at least one person, and 68 (77.3 percent) of these contacted three or fewer. The distribution of contacts initiated by respondents is presented in Figure 5-12.

In an attempt to further explain the lack of matchlist usage we examined matchlist quality in terms of the number of names on the lists and whether those listed were perceived as potential commuting partners. Of the 267 persons receiving matchlists, 27.4 percent reported that their list contained 5 or fewer names. As shown in Table 5-4, however, only 3.7 percent indicated that there were not enough names on the matchlist. Nearly half of the matchlist recipients (44.2 percent) indicated no problem with the matchlist; about the same number (42.4 percent) indicated that work schedules and locations of commuter partners were too divergent.

Only .7 percent of matchlist recipients indicated that it took too long to receive the matchlists. In general, most matchlists were compiled and distributed within two months of the respondent completing an Easyride questionnaire. Figure 5-13 shows that 56.3 percent of the matchlists were received within a month of the request and a total of 81.9 percent were received within 2 months of the request.

Dissatisfaction with matchlist quality and the number of undelivered matchlists partially explained the low rate of matchlist usage. The rate of matchlist usage (33.0 percent), however, when compared with those who found no problems with the matchlists (44.2 percent), offers another possible explanation. It indicates a general reluctance to call strangers rather than a serious shortcoming in matchlist compilation and distribution. A comparison of the 92.5 percent of matchlist recipients who contacted 3 or fewer persons (including those who contacted none) with the 27.4 percent of matchlists which contained 5 or fewer names supports this assertion.

Brokerage projects in Minneapolis and Knoxville had similar results. In Minneapolis, it was estimated that less than 15 percent of matchlist recipients used their matchlists before follow-up assistance by the Minneapolis staff. Knoxville experienced a 22-percent use rate among matchlist recipients.

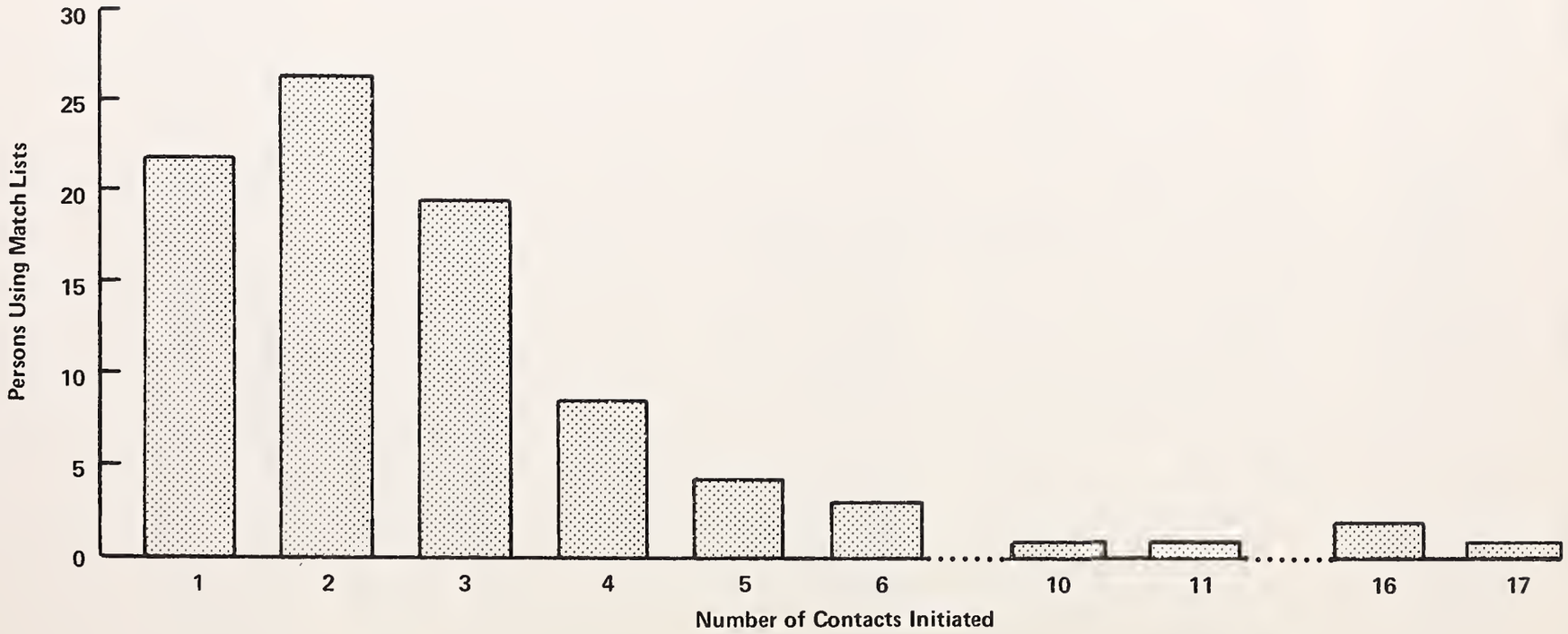

FIGURE 5-12. MATCHLIST CONTACTS INITIATED

TABLE 5-4

MATCHLIST RECIPIENTS' PROBLEMS WITH COMPUTER MATCHLISTS

	Number*	Percent**
None	118	44.2
Not Enough Names	10	3.7
People Lived Too Far Away	49	18.4
People Worked Too Far Away	19	7.1
Work Schedules Too Different	45	16.9
Too Long to Get Matchlist	2	.7
Matchlist Didn't Have Enough Information	1	.4
Can't Remember	1	.4
Didn't Know Anyone On List	1	.4
Other	41	15.4

*The sum of these numbers does not equal 267, the number of people who received matchlists, because respondents could check more than one possible response.

**Computed as a percentage of matchlist recipients (267).

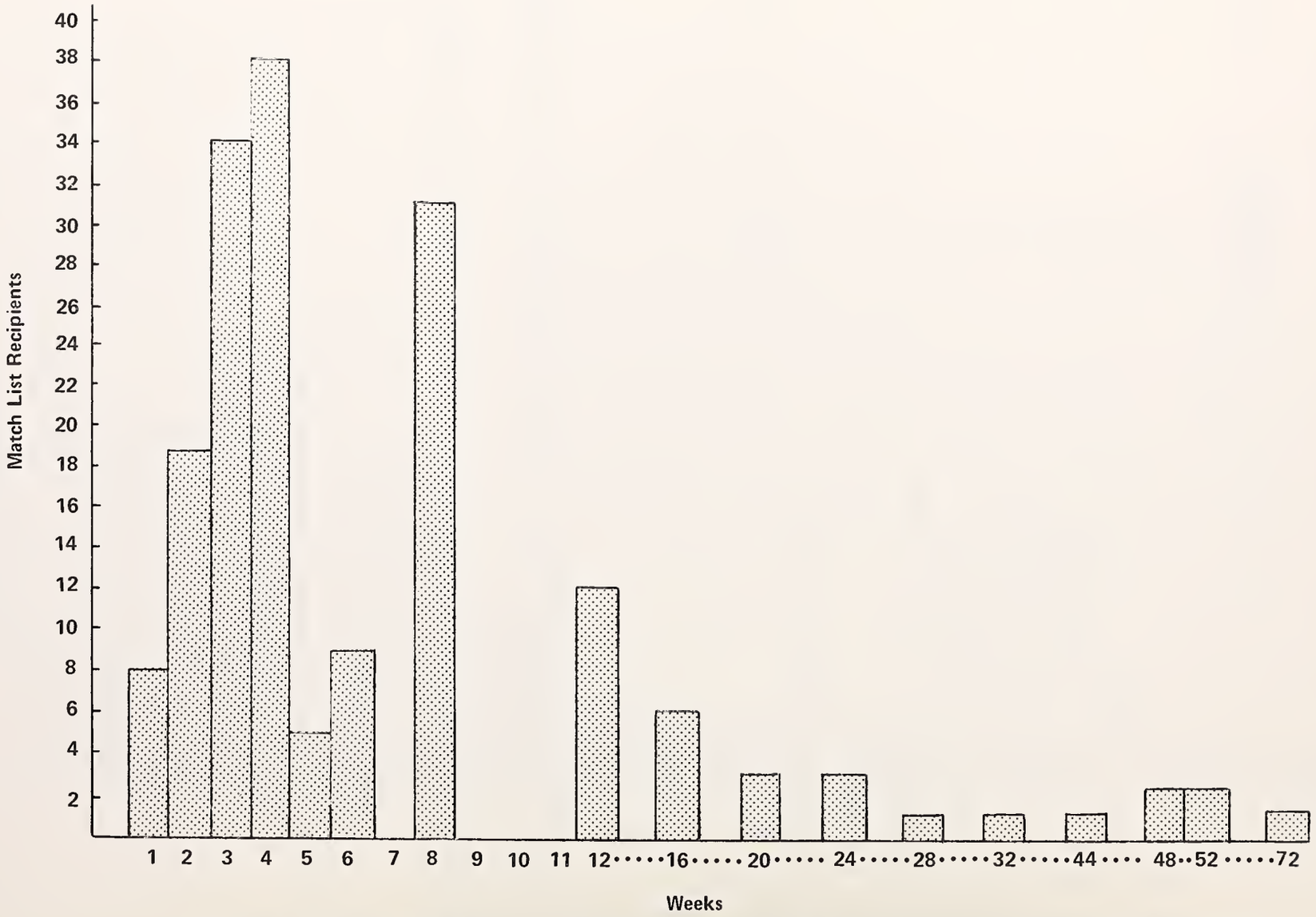

FIGURE 5-13. TIME DURATION BETWEEN APPLICANT REQUEST AND RECEIPT OF MATCHLIST

5.6.9 Work Trip Characteristics of Ridesharers

5.6.9.1 Travel Times - The average travel time for commuters was significantly different among the three modes, as illustrated in Table 5-5. Ridesharers exhibited the longest average travel times from home to work (26.1 minutes), and they estimated their drive-alone time to be only 23.0 minutes.

The relatively small difference in ridesharing versus drive-alone time is probably because of the large number of pools in the sample that consisted of family and neighbors. These pools spend little or no extra time collecting passengers. Of all pools, 40.4 percent have at least one family member or neighbor and 13.7 percent are composed exclusively of family members or friends. In addition, for 33 percent of the pools, all or all but one of the pool members are family members or neighbors.

5.6.9.2 Trip Distance and Vehicle Occupancy - Average trip distances for solo drivers and ridesharers reflected the widely held belief that ridesharing is more attractive to persons commuting farther. The average to-work distance of 11.5 miles for solo drivers was significantly less than the 15.2 miles for ridesharers. This relationship of trip distance to vehicle occupancy is summarized in Figure 5-14. (A few respondents with very long distances to commute probably lived in remote areas with limited ridesharing opportunities.) The longer average trip distances for ridesharers than for solo drivers partially accounts for the longer average travel times experienced by ridesharers.

The typical carpool has 2 members and travels 15 miles round-trip a day (modal value). Figure 5-15 shows the frequency distribution of ridesharing pools by vehicle occupancy.

5.6.9.3 Travel Costs - Travel costs were calculated by multiplying average travel distance by the operating costs per mile of an average automobile. Operating costs per mile, rather than total costs of owning and operating an auto were used. This was done because the survey indicated that few respondents reduced the number of vehicles they owned as a result of ridesharing. (Of ridesharers, 90.8 percent use their own cars to share the driving responsibilities.) The fixed costs of ownership, insurance, and depreciation vary little with usage.* Thus,

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* In the U.S. Department of Transportation publication Cost of Owning and Operating Automobiles and Vans 1979, Joseph E. Ullman states that depreciation is "the greatest single cost of owning and operating a car" and that "in the majority of cases, the age of a vehicle is more important than its mileage in determining resale or trade-in value."

TABLE 5-5

TRAVEL TIME DIFFERENCES

	Travel Time	Standard Deviation	t-Statistic*
Drive Alone	18.5	10.64	$t_{drive/carpool} = 7.9$
Carpool	26.1	11.77	$t_{carpool/bus} = 1.34$
Bus/Other	20.0	20.22	$t_{drive\ alone/bus} = 7.0$

$$^{*}\text{t-Statistic} = X_1 - X \Big/ \frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}$$

t-Statistic for α.10, one tailed test = $\sim$ 1.32

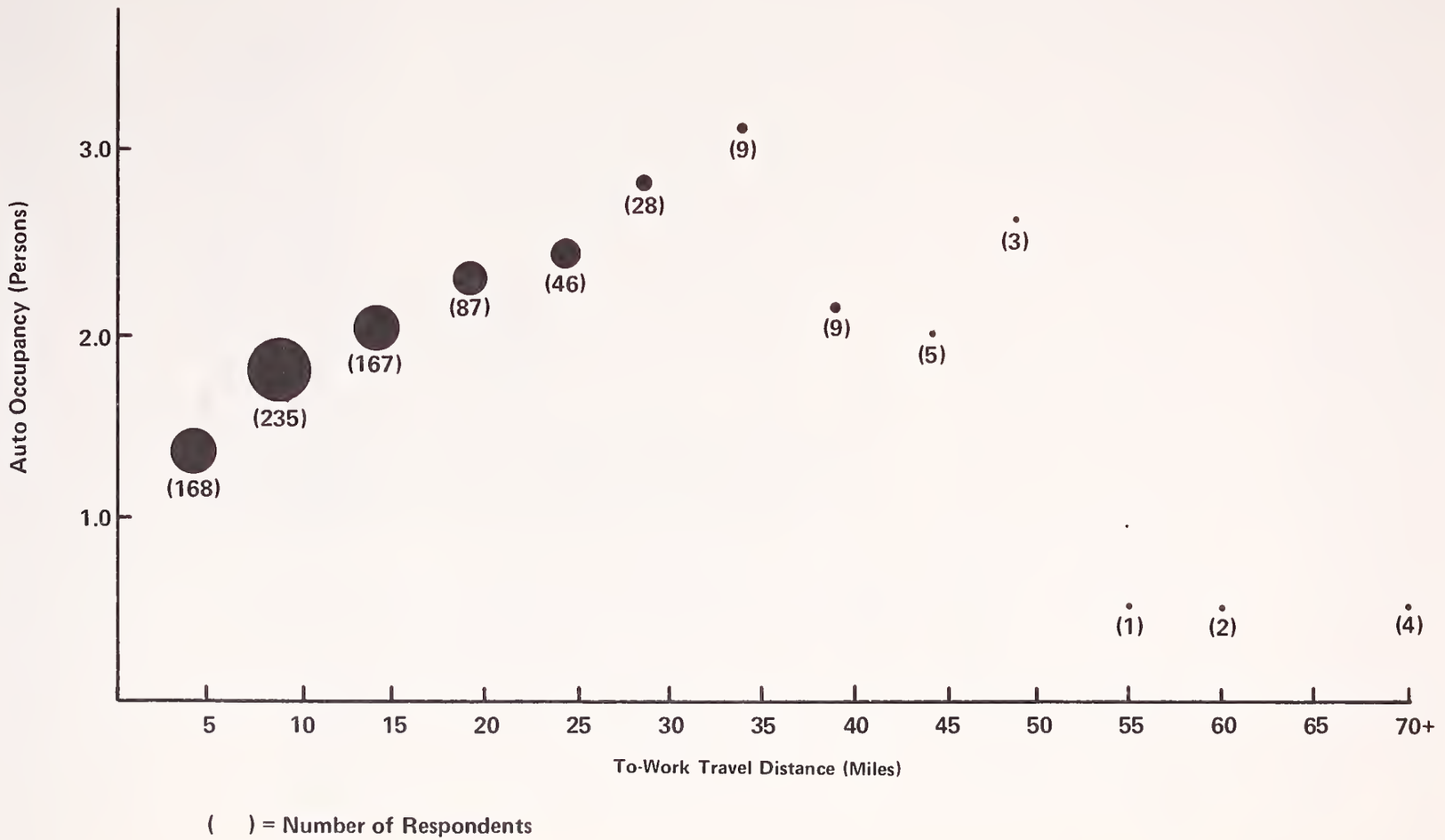

FIGURE 5-14. TRAVEL DISTANCE AND AUTO OCCUPANCY

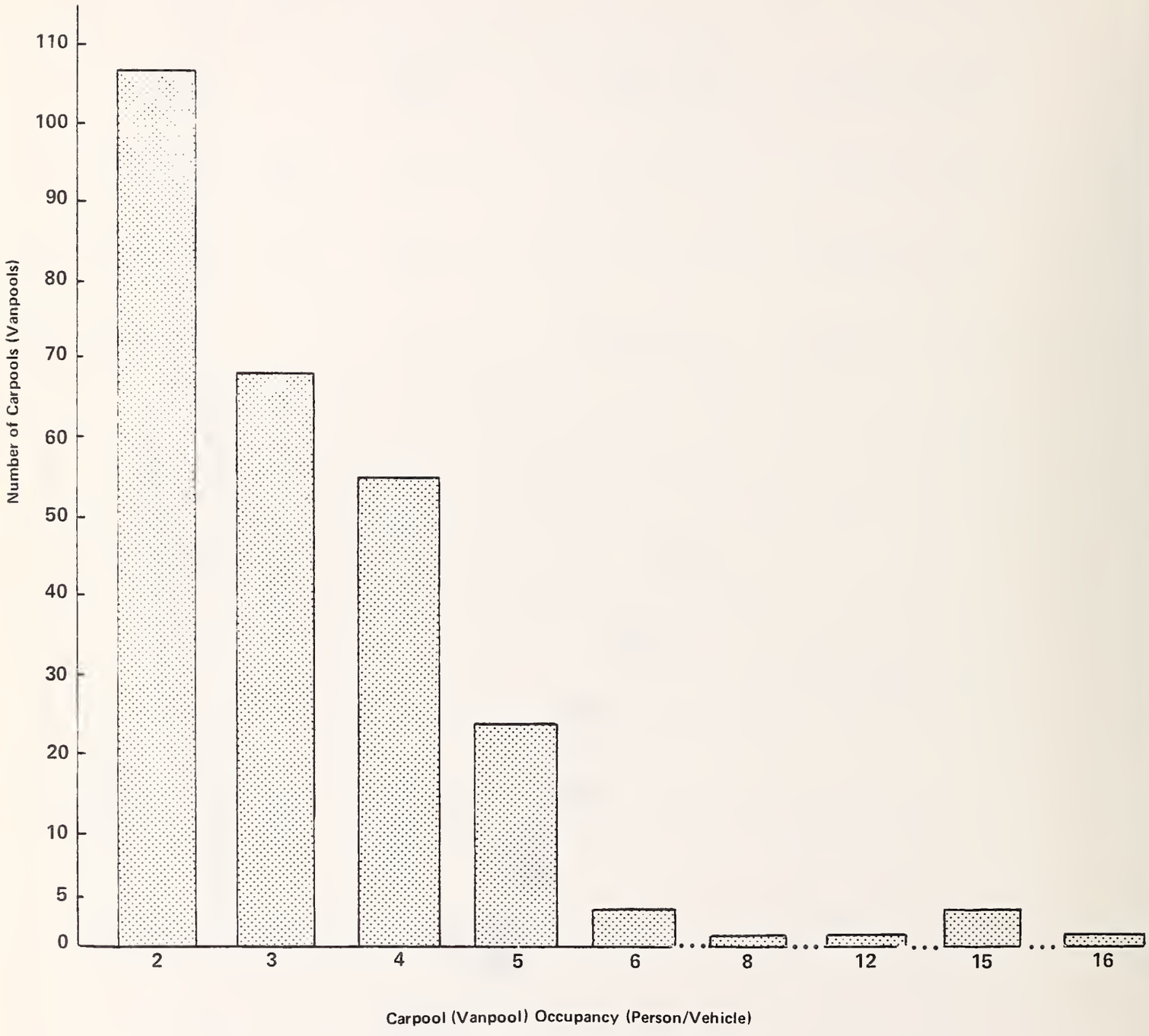

FIGURE 5-15. SAMPLE SURVEY DISTRIBUTION OF CARPOOLS AND VANPOOLS BY OCCUPANCY

the individual considers the out-of-pocket operating costs of fuel and regular maintenance when evaluating the cost component of alternative modes.

The average trip length for a solo driver was 11.5 miles and the average operating cost for an automobile in 1981 was $.0817 a mile.* Adding the $.01 a trip average toll and parking fees for solo drivers makes the average operating costs for a one-way drive-alone commute on the Peninsula:

(11.5 miles/trip x $.0817/mile) + $.01/trip = $.95/trip

Ridesharers' costs were also calculated using average operating costs and travel distance. This value must be estimated for most ridesharers as they do not usually exchange money; instead, they take turns supplying the vehicle and driving. For ridesharers, the average one-way distance times cost per mile equals $1.41, plus an average parking and toll cost of $.028, produces a one-way trip cost of $1.438. When this value is divided by the average vehicle occupancy of 3.25, the per-person cost of ridesharing is $.44 a trip:

$$\frac{(17.25 \text{ miles/trip} \times \$.0817/\text{mile}) + \$.028/\text{trip}}{3.25 \text{ persons/trip}} = \$.44/\text{trip}$$

Figure 5-16 illustrates the passenger fares and travel distance fares for the 21 ridesharers in the sample who made payments to their drivers (9.2 percent of the total). The actual weekly fares reported by these ridesharers were somewhat higher than the average pool fares estimated above. (The average ridesharer paying a fare traveled 16.56 miles and paid $.77 a trip. Using the procedures outlined above, the estimated passenger costs would be $.42 a trip.) This difference may be because drivers tried to capture some of the fixed costs of vehicle operation from passengers who did not take turns using their own car.

5.6.9.4 Personal Savings - The personal savings that accrues from ridesharing is the difference between estimated costs for driving alone and those for ridesharing. Using the cost values from above and the average of 15.16 miles a trip when ridesharers drive alone, the average ridesharer saves $.81 on the average one-way work trip of 17.25 miles.

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* American Automobile Association, "Your Driving Costs," 1981 Edition.

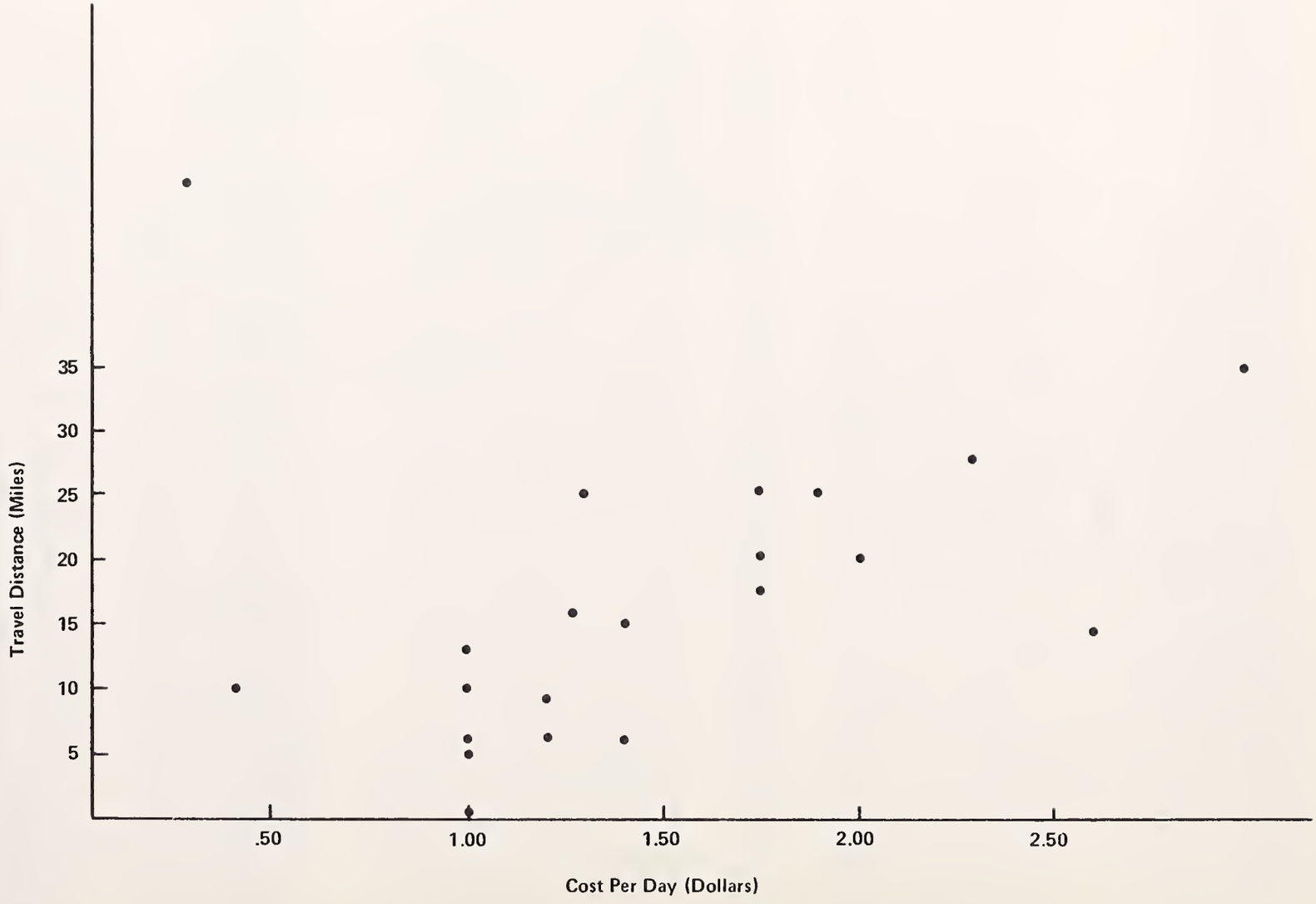

FIGURE 5-16. PASSENGER FARES AND TRAVEL DISTANCES FOR CARPOOLS

Ridesharers' Hypothetical Drive-Alone Costs – Estimated Ridesharing Costs = Carpool Members' Savings

$$(15.16 \text{ mile/trip} \times \$.08175/\text{mile}) + \$.010/\text{trip} = \$1.25 / \text{trip}$$

$$-\left[\frac{(17.25 \text{ mile/trip} \times \$.08175/\text{mile}) + \$.028/\text{trip}}{3.25 \text{ persons/trip}} = \$ .44 / \text{trip}\right]$$

$$\$ .81 / \text{trip}$$

Table 5-6 presents the estimated aggregate ridesharer savings that accrued during the 21-month evaluation survey period. The savings estimated were grouped into three categories:

- savings that accrued to all ridesharers during this period;
- savings that accrued to new ridesharers during this period; and
- savings that accrued to individuals who became ridesharers as a result of Easyride's matchlist distribution and promotion activities.

The estimated savings in the survey sample were then extrapolated to the population of persons submitting Easyride questionnaires. Of the $531,648 savings that accrued to new ridesharers during this period, Easyride-influenced ridesharers accrued 29.1 percent, or $154,560.

5.6.9.5 Travel Circuity - Carpool travel circuity is defined as the additional miles that a vehicle travels when collecting passengers compared with traveling the most direct route. Using the average trip distances for all carpools in the sample and their hypothetical drive-alone distances, carpool circuity is:

$$\frac{\text{carpool travel distance}}{\text{drive-alone travel distance}} = \frac{17.25 \text{ miles}}{15.16 \text{ miles}} = 1.14$$

This factor is somewhat lower than the values observed in several other ridesharing projects. The low circuity value is probably due to the high incidence of family members and neighbors in Peninsula ridesharing and is consistent with the small increment in travel time that ridesharers have versus their estimated drive-alone travel time.

TABLE 5-6

AGGREGATE COST SAVINGS DUE TO RIDERSHARING DURING THE SURVEY PERIOD

Length of Carpool Usage		All Carpools Operating		All Carpools Formed During Survey Period		Easyride Influenced Carpools	
Months	Trips	Persons	Person-Trips	Persons	Person-Trips	Persons	Person-Trips
21	438	125	54,750	25	10,950	6	2,628
20	416	1	416	0	0	0	0
18	375	9	3,375	2	750	0	0
17	354	1	354	1	354	0	0
14	292	3	876	3	876	1	292
13	271	3	813	3	813	0	0
12	250	47	11,750	26	6,500	9	2,250
11	229	3	687	3	687	2	458
9	188	3	564	2	376	0	0
8	167	4	668	4	668	3	501
7	146	4	584	3	438	1	146
6	125	11	1,375	7	875	3	375
5	104	9	936	8	832	4	416
4	83	4	332	3	249	1	83
3	63	9	567	5	315	2	126
2	42	6	252	5	210	2	84
1	21	21	441	18	378	9	189
Total Person-Trips	Sample		78,740		25,271		7,548
	Est. Population****		1,104,348		354,432		105,863
Total Cost-Savings*	Sample		$127,559		$37,907**		$11,020***
	Est. Population****		$1,789,046		$531,648		$154,560

*Total cost savings are calculated by multiplying the average savings per trip when compared to drive alone: Savings = ($.81) x (2 trips/day) x (person-trips)

**New carpool cost savings are calculated using New Carpool Average Trip Lengths of: 13.78 miles for Old Drive Alone Distance and 15.05 miles New Carpool Trip Distance. Trip savings are $.75/trip.

***Easyride Influenced New Carpools have Average Trip Lengths of: 14.116 miles for Old Drive Alone Distance and 16.88 miles for New Carpool Distance. Trip savings are $.73/trip.

****The sample represents 7.13 percent of the population. The population values are estimated by multiplying the sample value by a factor of 14.025.

5.6.9.6 VMT Reduction and Fuel Savings - In addition to personal savings, ridesharing's social benefits include a reduction in vehicle-miles traveled (VMT) which, in turn, reduces gasoline consumption and number of vehicles on the road. This calculation resembles the personal savings calculations in Table 5-6, shown earlier, but uses an average VMT reduction value in place of the cost reduction factor. The estimated VMT reductions are then converted to fuel savings using the 1980 personal fleet average of 15.0 miles per gallon.*

To calculate the VMT reduction, the average VMT per ridesharer was subtracted from the average drive-alone VMT (15.16 miles). To calculate ridesharers' average VMT required that ridesharing access (by persons driving and parking) be included together with the average travel distance of the driver (17.25 miles).

Of the 226 persons currently participating in ridesharing, 60 drive an average of 3.27 miles one way to a meeting place. In addition, three persons are dropped off 1.25 miles from their home by a person who otherwise would not travel that way. Therefore, the weighted average access distance for these 63 ridesharers was:

$$\frac{60(3.27 \text{ miles}) + 3(1.25 \text{ miles})}{63 \text{ persons}} = 3.174 \text{ miles/person}$$

The average access distance for all ridesharers was:

$$\frac{63 \text{ persons } (3.174 \text{ miles/person})}{266 \text{ persons}} = .75 \text{ miles/person}$$

Thus, the total VMT per pool was the driver's distance, plus the average access distance, times the average carpool size:

17.25 miles + 3.25 persons (.75 miles/person) = 19.69 miles

Subtracting this value from the estimated VMT that would have been traveled if the ridesharers drove alone produced a net reduction of 29.58 miles per pool:

drive-alone VMT 3.25 persons (15.16 miles/person) =	49.27 miles
rideshare VMT miles	-19.69 miles
net VMT reduction per pool	29.58 miles

* Source: NCHRP 229, "Methods for Analyzing Fuel Supply Limitations on Passenger Travel," Transportation Research Board, Washington, D.C., December 1980.

This value, as shown in Table 5-7, produced an aggregate VMT reduction for the survey population of 20,102,537 miles for all pools operating during the 21-month period; 5,954,458 miles for pools formed during this period; and 1,730,257 miles for pools that Easyride influenced.

The 1980 personal fleet average of 15.0 miles per gallon was used to estimate the following fuel savings from use of ridesharing for the survey population:

- 1,340,169 gallons for pools operating during the survey period;
- 396,964 gallons for pools formed during the survey period; and
- 115,350 gallons for pools that Easyride influenced.

The workforce on the Peninsula was assumed to be 110,000. Of this, 69.2 percent drive alone and 27.0 percent participate in a carpool or vanpool.* As a result, reductions in survey population fuel consumption, as percentages of total Peninsula commuter fuel consumption, are:

- 2.2 percent for survey population pools operating during the survey period;
- 0.7 percent for survey population pools formed during the survey period; and
- 0.2 percent for Easyride-influenced pools.

5.6.9.7 Ridesharers Attitudes - When ridesharers were asked why they began using ridesharing, the most important reason was to reduce commuting costs (74.8 percent). Energy conservation was next (12.1 percent), followed by a preference for companionship (7.5 percent).

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* U.S. Department of Commerce, Bureau of the Census, Selected Characteristics of Travel to Work in 21 Metropolitan Areas: 1975, 1978.

TABLE 5-7

AGGREGATE VMT SAVINGS DUE TO RIDERSHARING
DURING THE SURVEY PERIOD

Length of Carpool Usage		All Carpools Operating		Carpools Formed During Survey Period		Easyride Fostered Carpools	
Months	Trips	Persons	Person-Trips	Persons	Person-Trips	Persons	Person-Trips
21	438	125	54,750	25	10,950	6	2,628
20	416	1	416	0	0	0	0
18	375	9	3,375	2	750	0	0
17	354	1	354	1	354	0	0
14	292	3	876	3	876	1	292
13	271	3	813	3	813	0	0
12	250	47	11,750	26	6,500	9	2,250
11	229	3	687	3	687	2	458
9	188	3	564	2	376	0	0
8	167	4	668	4	668	3	501
7	146	4	584	3	438	1	146
6	125	11	1,375	4	875	3	375
5	104	9	936	8	832	4	416
4	83	4	332	3	249	1	83
3	63	9	567	5	315	2	126
2	42	6	252	5	210	2	84
1	21	21	441	18	378	9	189
Total Person-Trips	Sample		78,740		25,271		7,548
	Est. Population*		1,104,348		354,432		105,863
Total VMT-Savings**	Sample		1,433,310		424,553		123,337
	Est. Population*		20,102,532		5,954,458		1,730,257

*See Footnotes in Table 5-6.

**VMT savings are calculated as follows:

$$\frac{\text{(Total person-trips) X (2 trips/day) X (Net VMT Reduction per pool)}}{\text{(persons in average pool)}}$$

$$= \frac{\text{(total person-trips) X 2 X 29.58}}{3.25}$$

When asked what was least attractive about carpool use, 21.1 percent cited dependence on others, and 10.2 percent cited the degree of commitment required; 40.8 percent, however, did not express any dissatisfaction.

5.7 CHARACTERISTICS OF PENINSULA VANPOOLS

Easyride's vanpool promotion began in October 1980. At that time there were 24 TRT-leased vanpools serving residences and employment sites on the Peninsula. By June 1981 there were 43 TRT-leased vanpools operating within the PTDC's jurisdiction. In addition, three buspools were leased from TRT--two of the buspools were formed from five vanpools.

A self-administered, mail-back survey form was distributed to the 43 vanpools to gather information about their operating characteristics and the process by which they were organized (Appendix H--Vanpool Evaluation Survey Form). Of the total, 19 drivers (44.2 percent) returned their surveys, with 208 completed questionnaires from their passengers (representing approximately 40 percent of total passengers).

5.7.1 Vanpool Formation

When drivers were asked how their vanpools originally got together, 94.7 percent identified personal contacts with fellow workers, friends, or neighbors. Of the passengers that were surveyed, 86.1 percent joined vanpools because of these contacts (Table 5-8). The importance of carpools as an initial step in the vanpool process was also evident--36.8 percent of the drivers and 10.6 percent of the passengers were former carpool members.

A similar pattern was seen with the eight respondents to the telephone survey (described earlier) who became members of vanpools not leased from TRT. Four vanpool members previously belonged to a carpool, and none of the respondents used a matchlist when their vanpool was formed.

To provide more information on the vanpool formation process, drivers were also asked how they would look for additional vanpool members if they needed them. The majority (68 percent) indicated they would use personal contacts with co-workers, friends, and neighbors, while 12 percent indicated they would use the Easyride office. Another 12 percent said they would use the company bulletin board or newsletter.

TABLE 5-8

HOW TRT-LEASED PENINSULA VANPOOLS WERE FORMED

Method	Driver Responses		Passenger Responses	
	Number	Percent of Total*	Number	Percent of Total*
Personal contacts with fellow workers, friends or neighbors	18	94.7	179	86.1
Contacts through use of a computer match list	---	---	4	1.9
Former carpool expanded to become a vanpool	7	36.8	22	10.6
Ridesharing coordinator at work, company bulletin board, ridesharing board, or newsletter	1	5.3	23	11.1
Assistance from Easyride office	---	---	3	1.4
Other	1	5.3	9	4.3
Total	27	N/A	240	N/A

*The percentage of respondents that utilized this method when forming vanpools. More than one response could be given by respondents.

Vanpool members became familiar with vanpool use through a variety of sources, as illustrated in Table 5-9. Word of mouth was the most common means of exposure, but the range of responses to this question indicated that drivers became acquainted with vanpool use through many promotional and media techniques.

5.7.2 Vanpool Trip Characteristics

5.7.2.1 Travel Times - The average vanpool passenger's work-trip travel time was 44.4 minutes, which is 9.6 percent longer than the vanpool passengers' estimated drive-alone travel time of 40.6 minutes. This relatively small difference, although statistically significant, is probable because most passengers drive or walk to a meeting point, as illustrated in Figure 5-17. Only one-third of the passengers are picked up at home, which reduces the amount of time the van spends collecting passengers.

When the ratio of vanpool passenger travel time to drive-alone distance was plotted against estimated home-to-work travel distances, it appeared that the added time of traveling farther was smaller on the margin (Figure 5-18). That is, living twice as far from work did not necessarily imply twice the travel time. This relationship was because of the spreading of relatively low passenger pickup speeds over more high-speed highway miles.

5.7.2.2 Travel Distances - As expected, most vanpool passengers lived substantially farther from work than persons who drove alone or used a carpool. The mean to-work trip distance for vanpool passengers, if they were to drive to work, was 44.4 miles. This was nearly four times greater than the 11.5 miles for solo drivers and approximately three times greater than the 15.2 miles for carpoolers.

Vanpool passenger trip lengths averaged 25.6 miles, substantially less than the 44.4 mile home-to-work average distance. The difference results from a high percentage of vanpool passengers driving or being driven to a meeting point rather than being picked up at home.

5.7.2.3 Cost Savings - The average vanpool passenger pays $1.13 per trip for the 25.6-mile ride. Because half of the riders drive to a pickup point, the fare does not account for the total work-trip cost. The cost savings for the shared ride portion of the trip are calculated below. The data needed to compute access travel costs were not collected by the vanpool passenger survey.

TABLE 5.9

HOW USERS LEARNED ABOUT VANPOOLING

Method	Driver Responses		Passenger Responses	
	Number	Percent of Total	Number	Percent of Total
Employer-sponsored program	3	15.8	18	8.7
Work newsletter	2	10.5	9	4.3
Co-worker or friend	9	47.4	162	77.3
Pentran/Easyride literature	1	5.3	--	--
TRT literature	4	21.1	6	2.9
Radio	3	15.8	3	1.4
Newspaper	5	26.3	2	1.0
TV	3	15.8	1	0.5
Highway billboard advertisement	2	10.5	--	--
Other	1	5.3	7	3.4
Total	33	N/A	208	100%

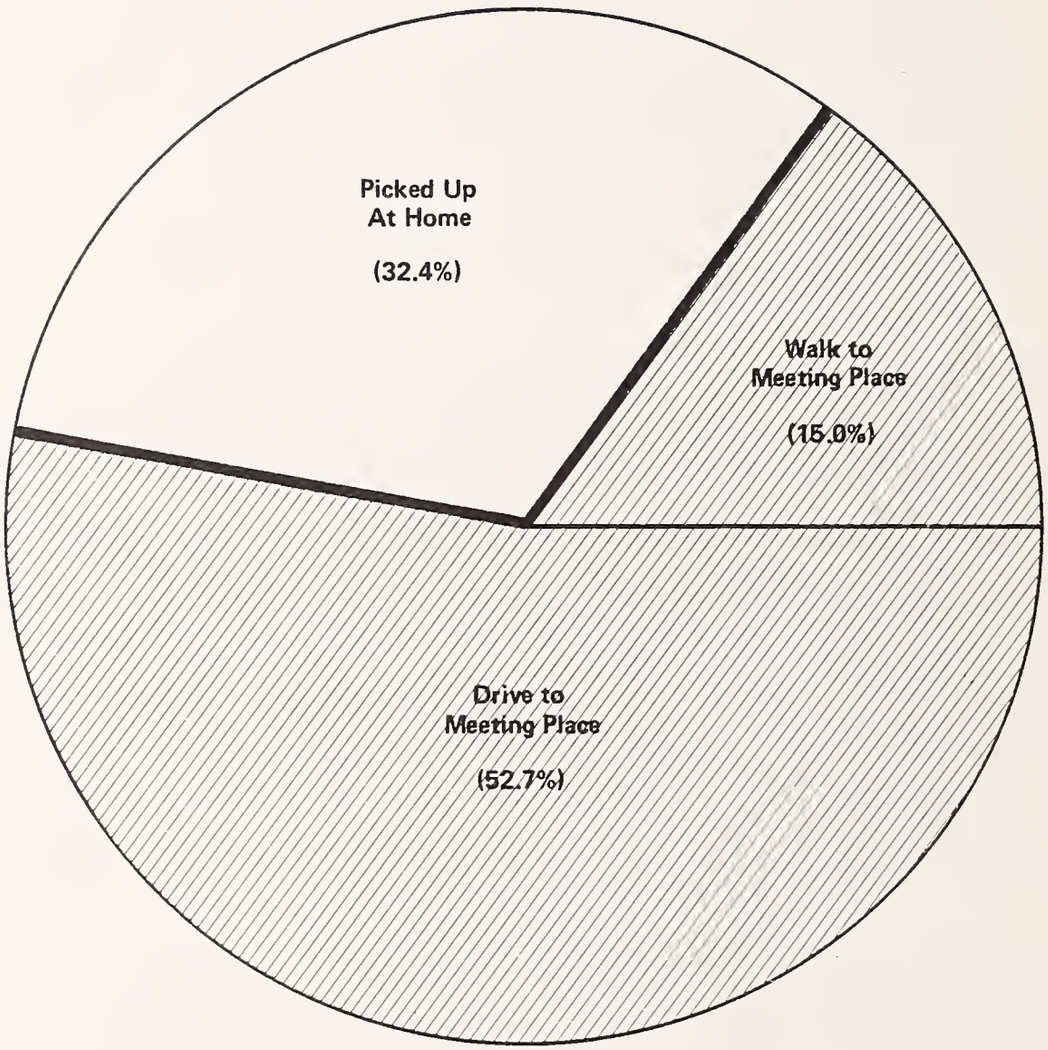

FIGURE 5-17. MEANS OF ACCESS FOR VANPOOL PASSENGERS

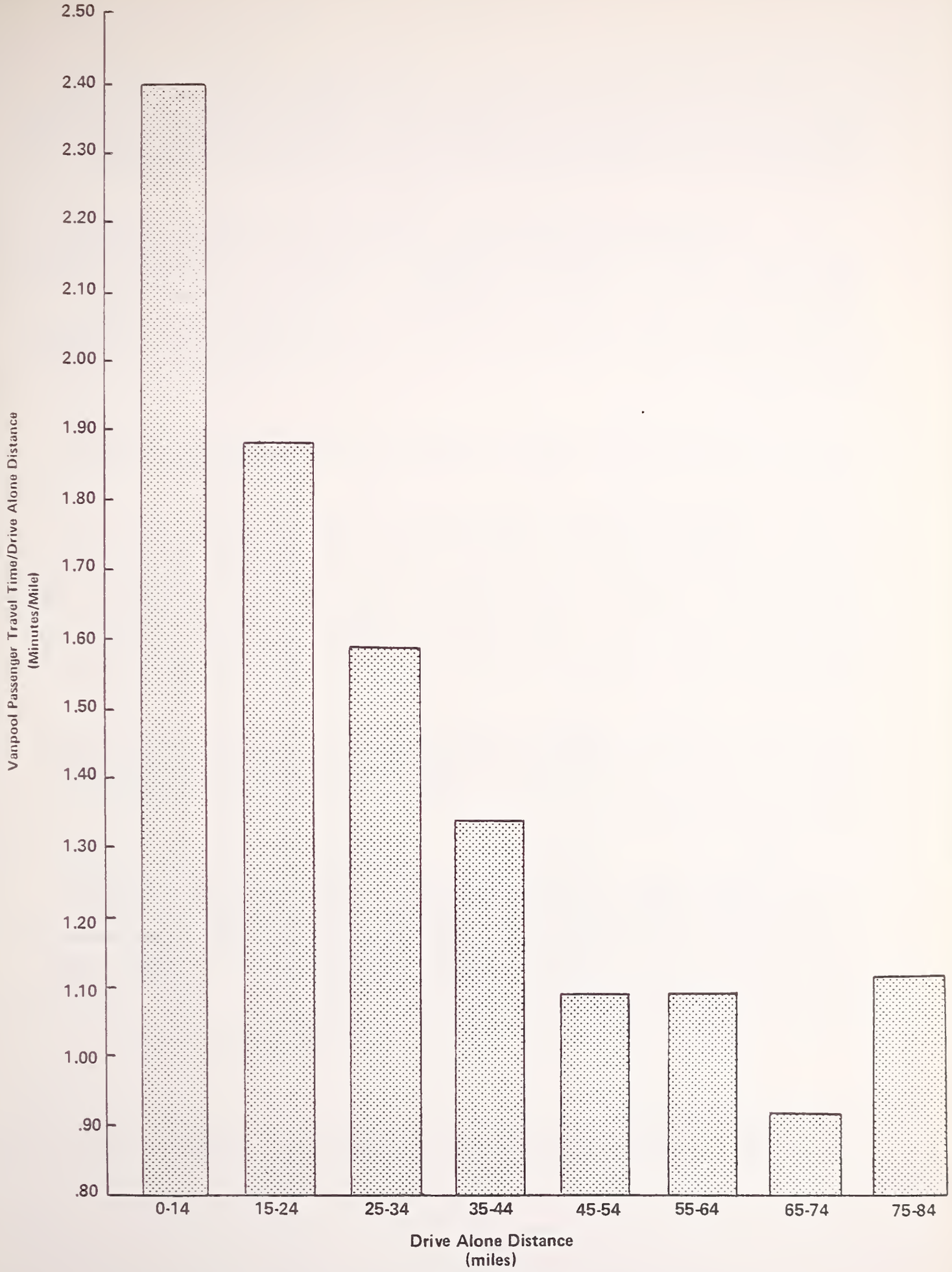

FIGURE 5-18. THE RATIO OF VANPOOL PASSENGER TRAVEL TIME AND DRIVE-ALONE DISTANCE AS IT RELATES TO DRIVE-ALONE DISTANCE

Using the average vanpool trip length and cost in the marginal cost formula discussed previously, a savings of $1.96 per trip is realized for vanpoolers.* This is equivalent to a $.08-per-mile average savings. In comparison, carpoolers averaged a per mile savings of $.05.

5.7.2.4 Previous Travel Mode - Most of the current vanpool passengers were previously carpool passengers, and 62.5 percent used some type of ridesharing mode. Figure 5-19 presents the previous work-trip modes represented in the sample. This explains why, as a result of joining a vanpool, less than half of the vanpool participants left a car at home they previously had driven to work, and only 12.5 percent delayed purchasing or sold a car.

The Minneapolis brokerage program evaluation reported similar findings on vanpool members' previous travel modes. Former carpool users compose 54 percent of its vanpool members.

5.7.2.5 Vanpool Riders Demographics and Attitudes - In the survey, vanpool members were predominantly male, were aged 21 to 40, and did not have a dominant job classification (as shown in Table 5-10). Riders did, however, have an even household income distribution (Table 5-11). Most riders worked overtime an average of less than three times a month, and did not work a rotating shift. These factors enabled them to meet vanpool scheduling requirements.

Most vanpool riders joined vanpools to reduce commuting expenses (85.6 percent). Roughly half said that alleviating parking problems at work and reducing stress were important considerations (Table 5-12). Energy conservation was also a significant reason.

Just as most vanpool riders joined pools to save money, the feature most liked in using a vanpool was the cost savings (cited by 69.2 percent). The second and third most liked features were the convenience of the vanpool (14.4 percent) and reduced driving stress (8.2 percent). Vanpool members also stated that their vanpools stayed on schedule. This is an important consideration, as most (73.8 percent) have little work schedule flexibility (less than 15 minutes).

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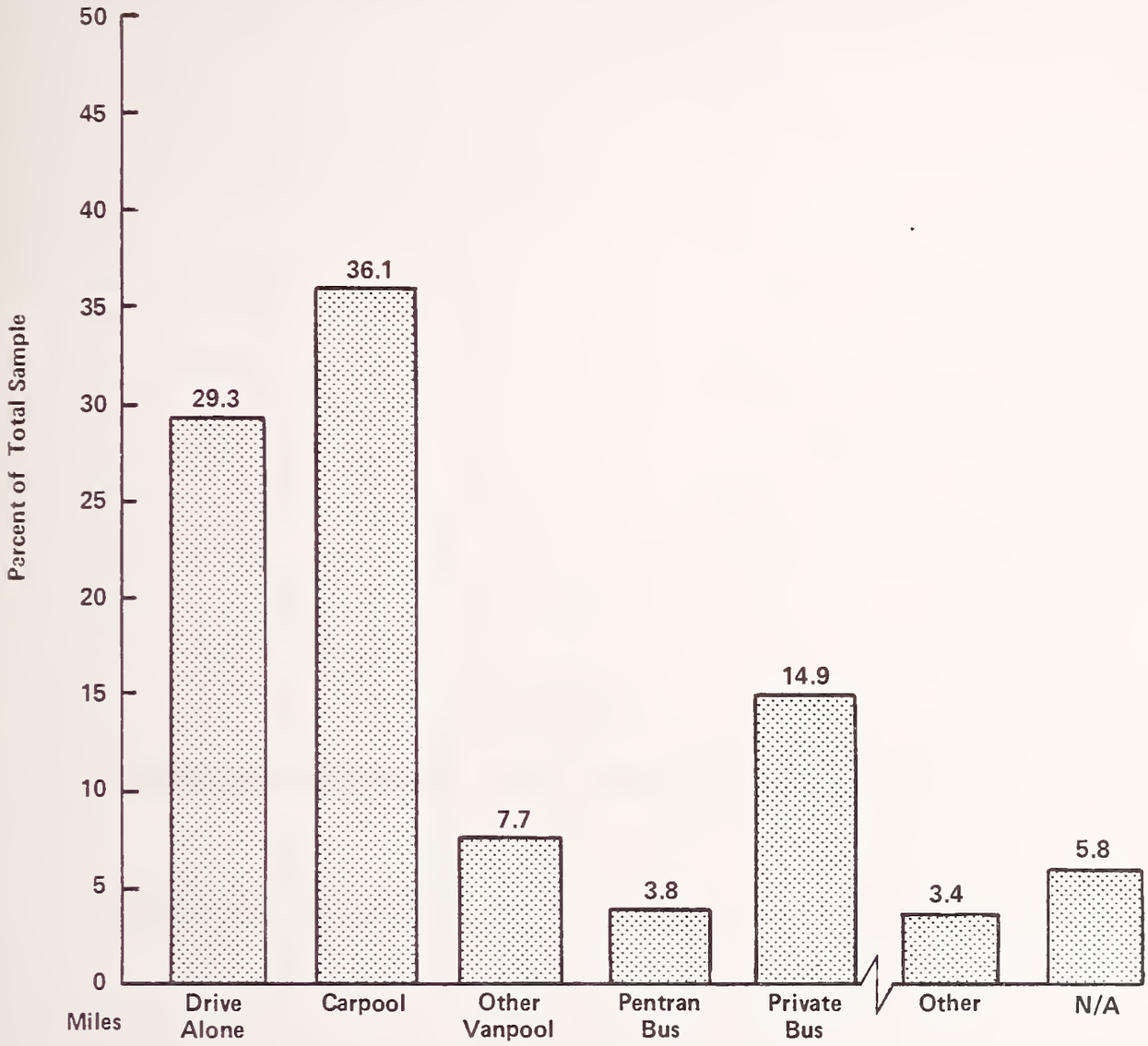
* Savings = ($.08175/mile)x(25.6 miles/trip) - $1.13 = $1.96/trip



N/A = Did Not Make Trip

FIGURE 5-19 VANPOOL PASSENGERS' PREVIOUS WORK-TRIP MODE

TABLE 5-10

VANPOOL PASSENGERS' JOB DESCRIPTIONS

Job Classification	Percentage of Responses
Executive	0.5
Professional	10.4
Shop/Factory Worker	19.8
Clerical-Office	18.8
Craftsman-Foreman	14.1
Service Worker	5.2
Manager	5.2
Other	26.0

TABLE 5-11

VANPOOL PASSENGERS' HOUSEHOLD INCOME DISTRIBUTION

Income Range	Percentage of Responses
Less than $10,000	2.5
$10,000 to $15,000	20.3
$15,000 to $20,000	22.8
$20,000 to $30,000	31.6
Over $30,000	22.8

TABLE 5-12

FACTORS CONSIDERED IMPORTANT IN CHOOSING TO JOIN A VANPOOL

	Important Mode Choice Factors	
	Number	Percentage
To Reduce Commuting Expenses	178	85.6
Because of Parking Problems at Work	107	51.4
To Make Car Available for Another User	57	27.4
To Avoid Auto Purchase	32	15.4
Do Not Own Automobile	6	2.9
To Obtain Relief From Driving Stress	106	51.0
Do Not Drive	8	3.8
Do Not Like the Bus	37	17.8
For the Companionship	36	17.3
Because of Employer Encouragement	16	7.7
To Conserve Energy	157	75.5
Other	6	2.9

When asked what they liked least about using a vanpool, over 60 percent found no significant problems, 12.4 percent cited schedule inflexibility, and 10 percent cited increased travel time.

6. EASYRIDE SPECIAL SERVICES TRANSPORTATION BROKERAGE

Easyride's special services transportation activities consist of managing Handi-Ride, implementing the Peninsula Transportation District Commission's (PTDC) 16(b)(2) procurement policy, and arranging leases of PTDC vehicles to social service agencies. These activities, their role in Peninsula special services transportation, and Handi-Ride development are discussed in this section.

6.1 HANDI-RIDE

Handi-Ride is a demand-responsive transportation service provided for the handicapped by the PTDC. Handi-Ride was initially conceived and is currently operated in compliance with U.S. Department of Transportation (DOT) Section 504 requirements.*

Handi-Ride's present form is a product of changes made during three distinct operating periods labeled "phases" by its administrators. In the first phase, the PTDC subsidized handicapped tripmaking with Section 5 funds. The PTDC contracted with two local taxi companies to provide the service. This program started before Easyride was initiated. After Easyride began, the PTDC transferred Handi-Ride management to Easyride from Pentran. In the second phase, Easyride administered the program, using PTDC Section 5 funds to subsidize service. This service was provided by a social service agency using PTDC vehicles in addition to the subsidized taxi service. Under the third (and current) phase, Easyride offers its own transportation service which is supplemented by taxis and is subsidized in part by PTDC Section 5 funds.

Discussed below are service delivery arrangements for all three Handi-Ride phases as well as details of current program operations such as eligibility, user cost, and service hours.

6.1.1 Planning of Special Services before Easyride Initiation

Planning for the transportation needs of the handicapped began in 1977. At that time Easyride had not been initiated,

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* See footnote on page 25.

and the PTDC had not provided any special services for the elderly and handicapped. Those in need of transportation had to rely on local taxi service or transportation provided by one of the numerous social service agencies on the Peninsula. A 1978 survey of 22 agencies conducted by the Human Services Integration Project of Hampton showed that the agencies spent an average of $93,800 a year on transportation. According to the survey, the 22 social service agencies operated 52 vehicles, including 24 vans, 19 buses, and 9 cars.

A group called Handicaps Unlimited exerted local pressure on the PTDC to initiate service to the handicapped. As special services were developed, the group became important in the decisionmaking process. Led by the group's founder,* Handicaps Unlimited was consulted frequently and played an integral part in making the desires of the local handicapped community known to the PTDC.

Despite the advocacy group's involvement in planning transportation to the handicapped, the PTDC did not have an estimate of ridership for this type of service. To forecast ridership to aid in service planning, the PTDC tried a self-identification survey which was published in the morning and evening papers serving the Peninsula. Handicapped readers were requested to fill out the survey (which detailed the individual's address, transportation needs, and transportation problems) and mail it to the PTDC. The PTDC received only 70 responses out of a combined circulation of approximately 97,000.

Although the PTDC owned several lift-equipped buses at the time, it chose not to use them in a special program. The reasons for this were unknown demand, labor cost considerations, and concerns over whether buses with lifts would provide adequate service. The PTDC, as required at the time by U.S. DOT, had set aside 5 percent of its operating subsidy to provide interim service to the handicapped.** Even though the funding

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* John Chappel, Jr. founded Handicaps Unlimited in 1974, four years before Handi-Ride was initiated. The Newport News/ Hampton group gave rise to a Commonwealth-wide organization in Virginia that has 12 local chapters and 2,500 members.

**The 5 percent set-aside requirement was later lowered to 2 percent.

amounted to $68,273, the PTDC desired to keep costs down because the spending requirements were seen as ceilings instead of guidelines. (To emphasize that its requirements are guidelines, U.S. DOT allows transit operators to spend less than the required amount if the level of service is adequate.)

To meet its objective of providing flexible, low-cost service responsive to the needs of the handicapped, the PTDC offered a demand-responsive service, using available private transportation providers. Thus, the Handi-Ride concept of user subsidies was developed before Easyride's inception.

6.1.2 Phase I

The PTDC contracted with two local taxi companies--Mathis Cab Company in Newport News and Langley Cab Company in Hampton--to provide door-to-door service to the physically and mentally handicapped who were unable, without special assistance, to use the bus system. Through this service, the PTDC fulfilled its interim service requirements. Initially, the service was called "Handi-Transit," which stood for transit for the handicapped. Service began in June 1978 and was originally scheduled for a 90-day trial period. Because high ridership demonstrated a substantial need, service was extended through June 1979.

6.1.2.1 Transition to Easyride - In September 1978, Handi-Transit was transferred by the PTDC from Pentran management to the Easyride project. The move was consistent with the stated objective of the Easyride planning grant to "prove the feasibility of paratransit for providing transportation for the young, old, handicapped, and poor." After the move, Handi-Transit was renamed "Handi-Ride" to reflect its new association with Easyride.

At that time, Easyride submitted a budget revision to the Urban Mass Transit Administration (UMTA) for permission to hire a special services administrator to oversee the Handi-Ride program and to investigate and coordinate special transportation services on the Peninsula. UMTA approved the revision. The Special Services Administrator hired was the Pentran Planner who had developed Handi-Transit. No additional funding for the position was requested. PTDC funds continued to subsidize the taxi service.

After Easyride assumed Handi-Ride management, the Easyride Director proposed that the PTDC formalize communication channels

with Peninsula social service agencies concerning special services transportation issues. As a result, the Peninsula Association of Special Service Agencies was founded. This group consists of representatives from Peninsula organizations that deal with problems of the elderly and the handicapped. Constituent transportation needs are brought before the PTDC by this group.

6.1.2.2 Ridership and Costs - In June 1978, Phase I service began with 38 accepted applicants. Ridership started with about 250 passengers in the first month, peaked at about 1,000 passengers in February 1979, and stabilized at about 600 in June 1979. (Handi-Ride ridership statistics will be discussed in more detail in Section 6.2.) By the end of Phase I, a total of 355 IDs had been issued. From July 1, 1978, to June 30, 1979, Handi-Ride transported about 6,850 passengers at a cost to the PTDC (normal taxi fare minus ticket revenues) of about $21,200. (The cost figures do not include administrative costs of the Easyride staff.)

As the program became more popular, costs began to climb. Monthly Handi-Ride subsidies rose from about $340 during the first month of operation (June 1978) to about $2,240 during May 1979. Simultaneously, the Handi-Ride budget was reduced because of UMTA's revision of the interim service funding guideline from the earlier 5 percent to 2 percent.

6.1.2.3 Transition to Phase II - At the time of the reduced Handi-Ride funding, the Peninsula Agency on Aging (PAA), a service organization for the elderly, was considering a severe reduction in its transportation services because of budget constraints. A meeting between PAA and Easyride led to the discovery of a 60-percent overlap of the client lists of Handi-Ride and PAA. As a result, the two agencies decided to join efforts to provide service. This agreement established the groundwork for Phase II.

6.1.3 Phase II

To reduce the growing costs of subsidized taxi service, the PTDC contracted PAA to provide, through June 1980, services similar to those of Phase I. Under the terms of this agreement, PAA scheduled and dispatched three PTDC cars and a lift-equipped PTDC minibus as a demand-responsive service. The agreement proved mutually beneficial for PAA and the PTDC because PAA needed the funding and Handi-Ride's costs per trip were reduced.

Langley Cab's contract also was extended to fill PAA's service gaps. Langley serviced riders that PAA could not accommodate, as well as last minute callers, and continued its original subscription service. Easyride discontinued use of Mathis Cabs. The reasons cited by Easyride for this were that Mathis Cabs had been insensitive to the special needs of the elderly and handicapped and had failed to meet Easyride's service standards. Easyride had received numerous service complaints from Handi-Ride patrons concerning Mathis Cabs.

6.1.3.1 Cost-Sharing Arrangements - During the first few months of Phase II, the PTDC funded or provided the Administrator (through Easyride), the vehicles and vehicle operating costs (including gas and maintenance); PAA provided the dispatchers, drivers, schedulers, and operations supervision.

PAA hired its Handi-Ride personnel through the Federal Government's Older Americans Program. The program encourages the employment of persons over 60 by paying their wages. PAA also received a Commonwealth grant to set up a pilot transportation program for elderly persons, which it used to fund Handi-Ride operations. When the grant money was expended, the PTDC agreed to pay PAA $1,000 a month to cover that portion of costs due to the handicapped service. The taxi service subsidy continued to be funded by the PTDC.

6.1.3.2 Special Interest Group Dissatisfaction - Handicaps Unlimited became increasingly dissatisfied with Handi-Ride service under Phase II. The reason for this was a belief that too much emphasis was placed on service for elderly persons. Even though elderly persons were not included in the Handi-Ride program criteria, many qualified for the program because of physical disabilities. PAA, whose clients were elderly persons, tried to obtain increased participation in the program for its clients. It sponsored an outreach program in which application forms were distributed and collected at the homes of potentially eligible elderly persons. Because of the limited resources available to PAA for Handi-Ride, Handicaps Unlimited accused PAA of giving preference to elderly persons. In spite of its reservations, however, Handicaps Unlimited believed that, overall, the program was meeting the needs of the handicapped community.

6.1.3.3 Taxi Operator Participation - Langley Cabs believed its involvement in the program with Easyride to be mutually beneficial. Langley's only complaint related to scheduling. PAA filled its vans first and then serviced the rest of the customers by using Langley Cabs. The taxi company indicated that

because this did not allow it to pool riders, its service was more expensive than necessary. Langley indicated that it believed it could provide service at a lower cost if it had more control over scheduling.

Overall, Langley's role was diminished from that of a primary provider during Phase I to a supportive position in Phase II. The growth in ridership allowed Langley to increase the total number of passengers carried almost every month, however, even while its percentage of Handi-Ride trips decreased. During Phase II, in all but two months, Langley served more than half the total trips.

6.1.3.4 Transition to Phase III - Ridership of Handi-Ride continued to grow. During the last four months of Phase II, ridership exceeded 1,000 trips a month, and in May 1980 it reached a peak of 1,500 trips. In June 1980, the number of program registrants grew to over 600. Because of the increase, PAA concluded that a payment of $1,000 a month from the PTDC was inadequate to compensate it for the costs of service to the handicapped. PAA therefore asked the PTDC for increased funding and projected it would need between $2,000 and $3,000 a month by January 1981.

Easyride also was disturbed by the increasing percentage of trips served by Langley. Langley and PAA each served roughly half the calls. During the last few months of Phase II, however, the percentage of trips served by Langley increased, and Handi-Ride experienced rising costs.

These increased costs prompted Easyride to consider alternative service arrangements. Easyride concluded that the best way to contain costs was to provide its own service. Easyride believed that growth in demand warranted the change, and with careful management, the number of taxi trips could be minimized. At that time, Easyride explored the possibility of installing radios in the vehicles to improve service. It would, however, have been prohibitively expensive to install receiving equipment at PAA. Because Pentran already had receiving equipment that Handi-Ride could use, the purchase of the radios for Pentran was relatively inexpensive. The PTDC extended the PAA contract through July to allow time to set up the third phase of the Handi-Ride program.

6.1.4 Phase III - Current Handi-Ride Operations

Current Handi-Ride operations began in August 1980. Easy-ride provides its own service, using three cars and a lift-equipped van, and contracts with a taxi company to supplement the service.

6.1.4.1 Eligibility Requirements - The Handi-Ride program is offered for the physically and mentally handicapped who are unable, without special assistance, to use the Pentran bus system. Even though service is provided only for the handicapped, over half of its users are elderly persons who qualify because of physical disabilities.

Acceptance to the program is decided by the Handi-Ride Director on the basis of a questionnaire (Appendix H) which is completed by the applicant and the applicant's physician. Applicants are asked to detail their disabilities, their present means of transportation, and the nature of their trips (e.g., work trip or medical trip). They are also asked whether they are confined to wheelchairs, use canes or crutches, are able to board cars unassisted, or must be accompanied by an attendant. Applicants are required to sign a release form that discharges the PTDC or its employees from any liability for any bodily injury or property damage sustained during participation in the program (Appendix I).

The applicant's physician is asked to verify the nature of the patient's disability and whether the applicant is physically or mentally able to use the bus system. The physician also answers a list of questions, such as whether the applicant can walk a quarter of a mile, stand for a period of ten minutes, or negotiate steps.

Accepted applicants receive a picture ID which must be displayed at the time of fare payment. Senior citizens' cards are stamped with a special logo in lieu of issuing an ID. If a user requires assistance to use the service, an "escort" (as he/she is called) also receives an ID and is eligible for the reduced fare. For verification purposes, a list of qualified individuals is given to the taxi company that provides supplementary service.

6.1.4.2 Service Hours and Scheduling - Handi-Ride operates during the same service hours as the fixed-route bus system: 6 a.m. to 6 p.m., Monday through Saturday. No service is offered on Sundays by either Handi-Ride or Pentran. Eligible users schedule rides a day ahead by calling Handi-Ride between

8 a.m. and 5 p.m. Handi-Ride employs a scheduler/dispatcher to receive the calls; record the time, origin, and destination of the initial and return trips; and schedule the trips.

Handi-Ride also operates on a subscription basis for regularly scheduled service, such as routine work, education, or medical trips. Subscription service is arranged when trips are repeated at least three times a week.

Handi-Ride contracts with Langley Cab Company to supplement its own services. When scheduling trip requests, Handi-Ride utilizes its own vehicles first and then forwards the balance of the requests to Langley. Handi-Ride also attempts to schedule Langley's trips in Hampton to keep the taxi operator's deadheading to a minimum and to minimize the PTDC subsidy. If there are only a few trips in the late afternoon, Handi-Ride sends its drivers home and assigns the trips to Langley. Langley also services the early morning calls.

6.1.4.3 User Costs - One-way fares, as of June 13, 1981, are $1.50 for an exclusive ride and $.75 for a shared ride. When Handi-Ride was initiated, fares were $1 a person for each trip whether or not the ride was shared. Later, to encourage pooling, fares were changed to $1 for an exclusive ride and $.50 for shared rides. The current fare schedule reflects Fiscal 1981 PTDC fare increases.

Payment is made to the driver with tickets which are sold in $.75 increments. These can be purchased at several area hospitals, social service agencies, and the Pentran office. When the taxi company provides the trip, the passenger pays the taxi driver $1.50 in Handi-Ride tickets ($.75 for shared rides) and Handi-Ride pays the balance of the regular taxi fare up to a maximum of $12.00. Peninsula taxi operators use a meter to calculate fares.

6.1.4.4 Marketing - Easyride publicizes the program with the brochure presented in Appendix J. This brochure is distributed in area hospitals, nursing homes, and social service agencies. It explains Handi-Ride and details its service hours, costs, and application process. Handi-Ride also uses a short slide presentation for marketing to Peninsula social service organizations, especially senior citizen groups. In spite of limited advertising, the program has experienced tremendous growth since it began; the Easyride Director attributes this to knowledge of the program being spread by word-of-mouth.

6.1.4.5 PTDC Service Contract With Langley Cab Company - PTDC contracts with Langley Cabs to supplement the service which Easyride provides. Langley services last-minute callers and trips that Easyride cannot accommodate. When return trips cannot be readily scheduled, Langley serves the trip if a Handi-Ride driver is not in the vicinity. Because Langley operates 24-hours a day, it is given the isolated early morning trips and the late afternoon trips.

When Easyride first assumed service delivery responsibilities, Langley serviced roughly half the trips. In the last months of Fiscal 1981, Easyride endeavored to schedule trips more effectively to lower subsidies. As a result, Langley's share of the monthly total trips has dropped to approximately 30 percent.

The PTDC/Langley service contract details billing and monitoring procedures, insurance requirements, operating standards, PTDC liability, and a discount schedule for varying trip volumes. Monthly bills are discounted as follows:

. 3 percent if 200 trips are made a month;

. 5 percent if 350 trips are made a month; and

. 7 percent if 450 or more trips are made a month.

Langley charges a flat metered fare regardless of the number of passengers (i.e., a group of riders pays the same total fare as a single rider); the contract requires that Langley attempt to pool riders. A copy of the contract is presented in Appendix J.

The contract calls for Langley to bill the PTDC on a monthly basis and establishes monitoring procedures to ensure proper billing. At the end of each ride, the driver is required to fill out the amount of the trip on the ticket and have the passenger or escort sign the ticket to verify the charge. The tickets are then collected by Langley and submitted to Handi-Ride.

From the driver's manifiest (the log that taxi drivers complete) Langley records the:

. date;

. name of driver and passengers;

. origin and destination;

. pickup and drop-off time;

. trip cost; and

. mileage.

If the caller fails to appear for the scheduled ride, the trip is labeled a "false call." The PTDC is billed $2 for Hampton false calls and $4 for Newport News False calls. The lists are then compiled and sent to Easyride with the bill and the tickets. Easyride then cross-checks the lists with the tickets and the dispatcher's schedules to ensure their validity.

The PTDC also included managerial and legal standards in its contract with Langley Cab Company. Langley is required to comply with all local laws and licensing requirements, keep financial records "in accordance with reasonable accounting practices," and comply with the Civil Rights Act. The contract also specifies that each taxicab be insured for liability against bodily injury and property damage. The contract releases the PTDC from any liability resulting from injury to program participants or Langley employees, or any property damage incurred while providing services.

6.2 HANDI-RIDE RIDERSHIP

Handi-Ride ridership has experienced steady growth since service was initiated. Service began in June 1978 with 82 monthly passengers. In June 1981 there were 1,373 monthly passengers, as illustrated in Figure 6-1. Mean monthly ridership for Handi-Ride's first year (June 1978 to June 1979) was 533 compared with 959 for its second year (July 1979 to June 1980), and 1,201 for its third year (July 1980 to June 1981). The unusually high ridership in the period from March 1980 through June 1980 was because of a temporary subscription service organized by Handicaps Unlimited, an advocacy group for the handicapped. It was used for a group attending a class at a local college.

6.2.1 Vehicle Occupancy

Handi-Ride encourages ridership by offering reduced fares for shared rides. During Phase I, the two taxi companies with which Handi-Ride contracted for all services lacked centralized scheduling and dispatching. They also lacked taxi-operator ridersharing incentives and had lower overall demand. This resulted in a mean average monthly vehicle occupancy of only 1.02 passengers per trip (Figure 6-2).

FIGURE 6-1. HANDI-RIDE MONTHLY RIDERSHIP

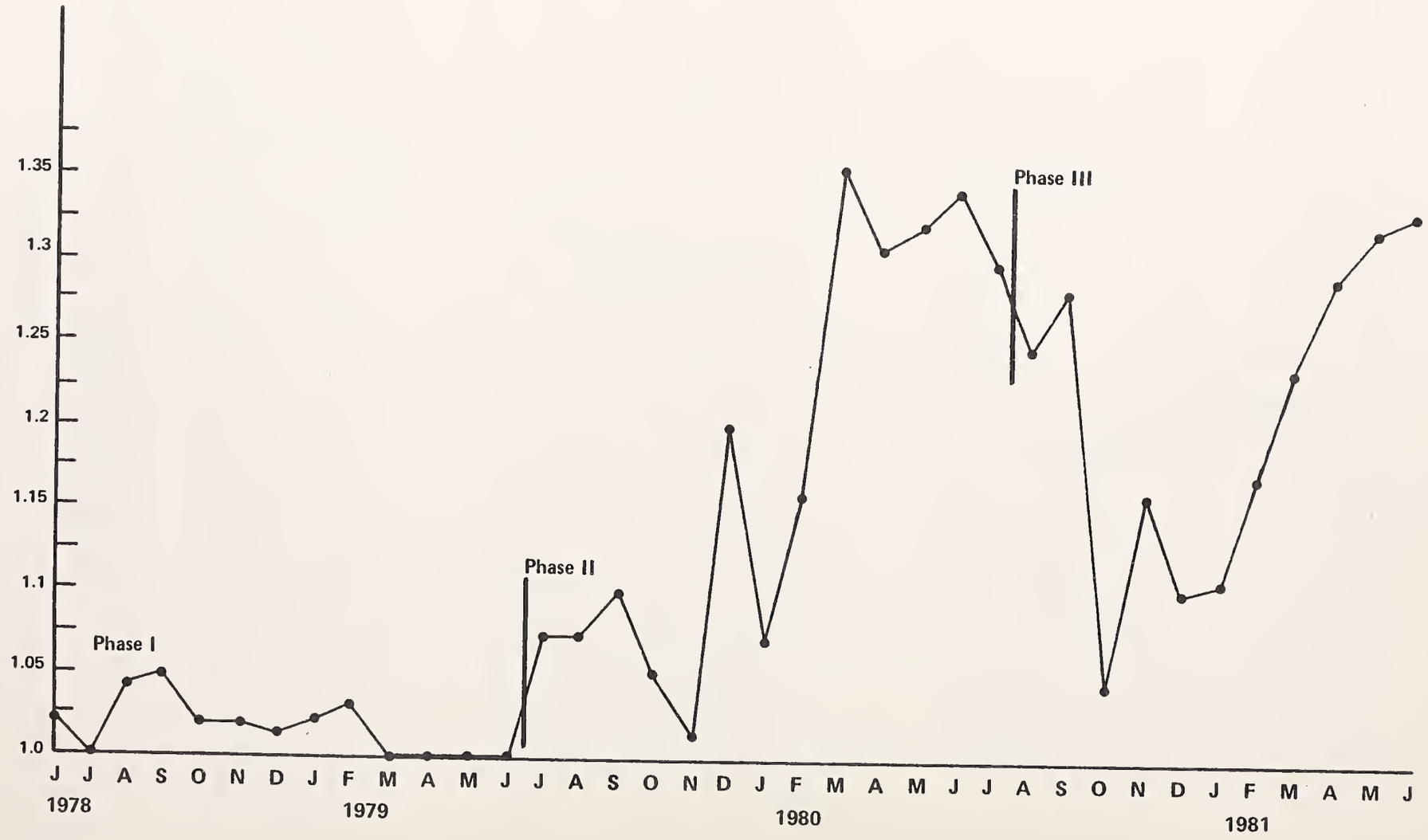

FIGURE 6-2. HANDI-RIDE AVERAGE MONTHLY VEHICLE OCCUPANCY

During the first half of Phase II, increased trip volume and centralized scheduling activities by the PAA (the social service agency which provided the service during this phase) raised the mean average monthly vehicle occupancy to 1.17 passengers per trip. The unusually high vehicle occupancies for the months of March through June 1980 were the result of the special Handicaps Unlimited subscription service mentioned above. This group was rather large and trips were made using a PTDC minibus. Phase III operations through June 1981 had a mean average monthly vehicle occupancy of 1.21.

During Phase III, Easyride assumed responsibility for Handi-Ride operations and further increased vehicle occupancies. Phase III began in August 1980 with an average monthly vehicle occupancy of 1.24 which, after dropping to a low of 1.10, rose to 1.33 in June 1981. Higher ridership levels aided Easyride in these efforts.

6.2.2 Program Registrants

As of June 1981, 787 individuals were registered with Handi-Ride all of whom were handicapped, except for escorts; over half were disabled elderly persons. Separate figures on the number of escorts were not available. During Fiscal 1981, Easyride received an average of 22 applications a month and accepted an average of 14 a month. The number of trips for each program registrant averaged less than two trips a month. The Handi-Ride Director estimated that only half of the program's accepted applicants were active users of the service.

6.3 SPECIAL SERVICES TRANSPORTATION BROKERAGE ACTIVITIES

In addition to managing Handi-Ride, Easyride coordinates Peninsula special services transportation by implementing the PTDC's 16(b)(2) procurement policy and by leasing PTDC vehicles to area social service agencies.

6.3.1 16(b)(2) Procurement Policy

Easyride developed a 16(b)(2) procurement policy for the PTDC (described in Section 3). This program, officially titled the "Specialized Service Policy," calls for Easyride review of 16(b)(2) applications in light of agencies' needs and financial capabilities and available public and private resources. Service alternatives are suggested, if appropriate. The applicant reviews the proposed alternatives and responds to each. If the agency agrees to some combination of proposals,

Easyride will work as a broker for the agency by arranging the alternative service. If it rejects the alternatives with acceptable arguments, the PTDC will endorse the application and the agency is given the option of transferring the title to the PTDC which will service and coordinate use of the vehicle. If the agency's arguments are rejected, the PTDC forwards the application to the Commonwealth with negative comments. Even though Easyride has no statutory power to accept or reject applications, Virginia acknowledges Easyride's role as the Peninsula broker and relies heavily on Easyride's recommendations.

6.3.1.1 16(b)(2) Policy Results - Easyride has reviewed three 16(b)(2) applications since the PTDC adopted the Specialized Service Policy. The first two were forwarded to the Commonwealth with endorsements because no alternatives were found. An alternative was found and accepted for the third application from Patrick Henry Hospital, a nursing home for the chronically ill. Easyride recommended that the hospital lease an unused lift-equipped minibus from the PTDC. The hospital agreed to the lease because the lease rate was favorable, the 16(b)(2) application process was seen as cumbersome, and the chances for grant approval were poor because of the availability of a PTDC vehicle. Later, use of this minibus was coordinated by Easyride between Patrick Henry Hospital (which needed the bus only once a week) and the PAA (which needed it in the Handi-Ride program). Easyride recently negotiated a new lease with the hospital. This lease permits the hospital to increase its use of the minibus.

Easyride's offers to assume the title and maintenance responsibilities for the 16(b)(2) vehicles acquired by the other two applicants were declined. The Special Services Administrator, who is responsible for implementing the policy, believed that the organizations declined because they wanted the independence and freedom of operation that ownership and control of vehicles allowed. This attitude may hinder future efforts to coordinate 16(b)(2) vehicle use.

6.3.2 PTDC Vehicle Leasing

Easyride efforts to implement the 16(b)(2) procurement policy and to coordinate Peninsula special services transportation focus on leasing PTDC vehicles to social service agencies for use in providing service to clients. The program's rationale is that centralized leasing gives Easyride the control to coordinate vehicle use and to maintain the vehicles properly.

6.3.2.1 Leasing Program Results - In addition to the PTDC minibus lease to Patrick Henry Hospital, Easyride has arranged

leases of two PTDC lift-equipped vans to the PAA and an additional PTDC lift-equipped minibus to the Hampton Convalescent Center. The PAA uses the vans full time and the Hampton Convalescent Center uses the minibus part time. The PTDC recently received UMTA capital grant funds to purchase four additional lift-equipped vans to expand the program.

7. CONCLUSIONS

7.1 EASYRIDE GOALS AND OBJECTIVES

When the Peninsula Transportation District Commission (PTDC) submitted its Service and Methods Demonstration (SMD) grant application to the Urban Mass Transportation Administration (UMTA), the brokerage concept had only recently been introduced to the transportation community, and the many possibilities for its application had not yet been fully explored. Despite its lack of definition, however, brokerage articulated the PTDC's service needs. The PTDC believed brokerage to be a means of meeting its transportation service goals and objectives. These it enumerated in the grant application (as presented in Section 1). Easyride's task was to develop and implement a work program to attain these PTDC goals and objectives.

Easyride's focus in its work program was divided into two major program elements:

. employer-based ridesharing promotion; and

. special services brokerage activities.

In addition, it undertook a limited number of other brokerage activities. This focusing of Easyride on selected activities was logical, given the capabilities and resources available to Easyride.

This section will address whether Easyride accomplished its chosen goals and objectives. It will also present conclusions regarding Easyride's techniques and experience, and will assess the prospects for Easyride and future brokerage programs.

7.2 EMPLOYER-BASED RIDESHARING ACTIVITIES

The goal of Easyride's employer-based promotions, as stated in the grant application, was:

> To reduce auto use for the work trip, especially in the major corridors of the lower Peninsula and their feeder arteries by designing and promulgating shared ride alternatives. Specifically: to establish the feasibility of alternative methods of ridesharing for the five major employers on the Peninsula.

Specific objectives addressing this goal were to:

- induce at least one of the Peninsula's five major employers to establish a ridesharing program for its employees; and

- identify Peninsula travel patterns and promote appropriate ridesharing alternatives through use of a computer matching system.

Easyride has accomplished these two specific, albeit limited, objectives. For the first objective, Easyride solicited participation, with varying degrees of commitment, from four of the Peninsula's five major employers. Two of these employers, Fort Eustis and the National Aeronautics and Space Administration (NASA), designated ridesharing coordinators. These coordinators now provide ridesharing services at their sites. To satisfy its second objective, Easyride implemented its computer matching ridesharing program.

7.2.1 Easyride Effects on Travel Behavior

The evaluation survey indicated that 5 percent of program participants were influenced by Easyride to transfer from solo driving to ridesharing. As shown in Table 7-1, which compares Easyride with Minneapolis and Knoxville brokerage programs, Easyride's rate of transfer from solo driving to ridesharing was similar to Knoxville's and lower than Minneapolis. (The rate of transfer for Minneapolis may be overstated because it did not separate those who initiated ridesharing on their own from those who were broker-influenced.)

Several factors contribute to explaining why Easyride's effects on Peninsula ridesharing were not greater. These include:

- Usage of Easyride-generated matchlists was low. Only a third of the persons receiving a matchlist initiated or received a contact about ridesharing. Despite the fact that usage was higher than experienced in Minneapolis and Knoxville, it was still low in absolute terms. In the sample survey, matchlists accounted for about one eighth of the solo driver to ridersharer changes.

- The wide separation of employment sites on the Peninsula diminished the potential effectiveness of the computer matchlists. The applicant pool size for a computer-matchlist run is restricted to the number of employees submitting matchlist requests at

TABLE 7-1

COMPARISON OF SELECTED BROKERAGE PROGRAMS

CHARACTERISTICS	BROKERAGE PROGRAMS		
	Newport News (Easyride)	Minneapolis	Knoxville
Organizational placement	Within transit authority	Within transit authority	City project closely associated with the University of Tennessee
Staff size (includes part-time staff)	5	9	11
Major activities	• Employer-based matching services • Elderly and handicapped transportation coordination • Vanpool program	• Employer-based matching services at surburan multi-employer industrial parks • Vanpool program	• Employer-based matching services • Lobbying to remove institutional barriers to ridesharing • Vanpool program
Matchlist usage	33 percent of matchlist recipients	15 percent of matchlist recipients	22 percent of match-list recipients
Program-influenced ride-sharers (as percentage of former solo drivers who now ridershare)	5 percent of program participants*	14 percent of matchlist recipients**	2-4 percent of match-list recipients

* Includes those who requested matchlists and/or received Easyride promotional literature.

** This increase may be overstated because the Minneapolis evaluation did not separate those who started ridesharing on their own initiative from those who were broker-influenced.

that one site. Thus, the potential pool size for each of the 19 separate matchlists was never greater than 910 and typically ranged from 200 to 400 people.

- There were and are relatively few incentives to rideshare on the Peninsula--aside from cost savings. Parking is plentiful and free at all of the surveyed sites except the Newport News Shipyard. Traffic congestion on Peninsula roadways is not severe. And there are no high occupancy vehicle (HOV) lanes in which those sharing rides could enjoy higher travel speeds than those driving solo.

- Cost savings resulting from ridesharing may not have been high enough to warrant joining a pool unless the individual could readily join without major inconvenience. The average cost savings for a carpooler in the survey sample was estimated at $300 a year. Because more than 80 percent of the evaluation survey respondents reported an annual household income of more than $20,000, these marginal cost savings did not appear large enough to produce changes in travel behavior--if these changes also entailed a somewhat greater travel time and some loss of personal mobility.

- The Peninsula may have already been near its saturation point for ridesharing. The Peninsula already experiences a high rate of ridesharing relative to areas of similar size and U.S. averages. As noted in Section 2, 27 percent of the commuters on the Peninsula use carpools. This compares with 23 percent for Transportation Group D* and 21 percent for the United States. A larger increase in ridesharing, therefore, may not have been possible, given the Peninsula environment.

7.2.2 Conclusions on Easyride Ridesharing Promotional Procedures

Easyride's employer-based ridesharing promotion focused on the matchlist generation process. At that time literature was distributed, meetings with team leaders were held, and vans were displayed. After providing employers with matchlists, Easyride's services were limited. Easyride recommended that the site's ridesharing coordinator maintain a master list (which Easyride provided) of all the names on the matchlists. The

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* See footnote page 13.

coordinators then could provide employees with the names of potential ridesharing partners. Easyride also recommended that employers designate preferential parking for poolers and institute flextime to facilitate pooling. Beyond these recommendations, however, Easyride did not assist employers in implementing an employee ridesharing program. Easyride left follow-up activities to the employers.

Easyride and the programs in Minneapolis and Knoxville experienced low rates of matchlist usage (see Table 7-1). These findings demonstrate the need for extensive matchlist distribution follow-up procedures.

Minneapolis attempted to address the problem of low matchlist usage with telephone brokerage activities;* however, as this was time-consuming, these efforts were soon reduced. Because of high costs, it is unclear at this time whether such follow-up procedures performed by the broker increase the level of ridesharing sufficiently to warrant their use. Future brokers may want to assist employers in developing and implementing follow-up promotions to matchlist distribution. This assistance may increase matchlist usage and ridesharing at minimum public cost.

Easyride procedures for updating its matchlist request files need to be assessed. Easyride updates these files by resurveying employment sites and then producing matchlists from the most recent request forms. This process is somewhat cumbersome as it collects the same data repeatedly from an individual whose schedule and work trip have not changed. It also diminishes the pool of commuters available for matching as resurveys at employment sites have produced consistently lower matchlist request rates. A possible alternative arrangement is a mechanism whereby the employer maintains its master list and transmits this information to the broker to use to update its files. New matchlists could be generated from the updated files without a resurvey.

7.2.3 Brokerage Economics

To assess the cost-effectiveness of alternative transportation services, it is necessary to have a common basis for comparison. This subsection compares Easyride costs with observed

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* Telephone brokerage activities entailed calling matchlist recipients to encourage pool formation. The telephone broker would arrange conference calls for matchlist recipients to discuss possible pool arrangements.

effects on travel behavior. The calculations are based on the number of former drive-alone individuals who identified Easyride as a factor in their decision to become ridesharers. This estimate may be low as survey techniques may not have captured persons Easyride indirectly influenced. Similarly, this estimate may be high as it was not possible to determine how many would have changed commuting modes in the absence of Easyride.

Based on the evaluation survey sample, it was estimated that between June 1979 and March 1981 about 639 people* became ridesharers as a result of Easyride. As of March 1981, total Easyride project costs were estimated to have been $322,622 (this estimate excludes expenditures for Handi-Ride). Total costs included initial start-up costs of $166,991; Fiscal 1980 operating costs of $88,912; and prorated Fiscal 1981 operating costs of $69,520 (prorated to coincide with the evaluation survey period). The start-up costs included the costs incurred during the planning grant as well as capital expenditures that were made during Fiscal 1980 and 1981.

The estimated total program costs per new ridesharer were $505 ($322,622 ÷ 639 = $505). Total operating costs per new ridesharer were $248 ($88,912 + $69,520 ÷ 639 = $248).

7.2.4 Private and Public Sector Roles in Employee Transportation Services

The need for and the high cost of follow-up promotion to matchlist distribution suggest a need to carefully consider the roles of the public and private sectors in promoting ridesharing at employment sites. As Easyride has done, it should be recognized that the employer is in a unique position to organize, implement, and operate an employee ridesharing program.

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* The survey sample identified 43 Easyride-influenced ridesharers. The sample was 7.13 percent of the population of persons completing Easyride questionnaires; expanding the sample to the population yields an estimate of 603 (43 ÷ .0713). An additional 36 vanpoolers were added to this total as 3 TRT van lease applications were originally forwarded to TRT by the Easyride office. This adjustment was made even though the 19 drivers responding to the vanpool survey did not identify Easyride as a factor in their formation.

Ideally, an organization should consider and integrate four major elements in developing its ridesharing program:

- ridesharing;
- parking management;
- flexible work hours; and
- transportation fringe benefits.

In our opinion, it is preferable that the implementation and operation of an employee ridesharing program be conducted by the employer rather than by a public sector brokerage agency. There are two major reasons for this approach:

- The employer is in a unique position to design, implement, and operate a ridesharing program which is fully integrated with the firm's operational requirements and overall personnel program. Such integration is vital to the success of an employee ridesharing program.
- The costs of the program are predominantly borne by the principal beneficiaries--the employer and the employees--rather than by a public sector brokerage agency.

Marketing within the organization of ridesharing (and other employee transportation services) should be the responsibility of an employer-appointed coordinator, not the responsibility of a public sector brokerage agency. Similarly, this coordinator should be responsible for maintaining a data base on current employees suitable for updating matchlists. New employees should automatically be added to the data base when they join the organization and terminating employees should automatically be removed from the data base. This information, then, could be given to the broker to update its files.

It should be recognized, however, that there are important and legitimate public sector responsibilities with regard to employee ridesharing programs. These include:

- Encouraging employers to initiate a ridesharing program--such a program should be marketed to employers on the basis of hard financial and personnel performance data. These considerations may be more important to the employer than broader social objectives (such as reducing congestion) with benefits to the individual employer that are extremely difficult to quantify.

- Working with site ridesharing coordinators--support materials, training programs, promotional materials and computer matching services can be provided to site ridesharing coordinators. Institutional and regulatory barriers to ridesharing programs can be identified and efforts made to reduce their effects.

- Encouraging multi-employer ridesharing programs among smaller employers--smaller employers encounter special problems in implementing ridesharing programs. To some extent, these problems can be surmounted by creating a multi-employer ridesharing program. Such a program could be managed by a not-for-profit organization--for example, the Tyson's Transportation Association, which was recently organized by employers in a congested area of the Northern Virginia suburbs of Washington, D.C.

Public sector brokerage agencies can contribute to providing cost-effective transportation services in a variety of environmental settings. The roles of the private and public sectors, however, need to be carefully defined so that they complement one another.

7.3 SPECIAL SERVICES BROKERAGE ACTIVITIES

The grant application stated that the goal of Easyride's special services activities was:

> To prove the feasibility of paratransit for providing transportation for the young, old, handicapped, and poor. Specifically: to select a significant destination such as a hospital, health center or shopping center, delineate a service area, design and rank alternative paratransit methods and develop financial avenues for services.

Program objectives consistent with this goal were to:

- identify the transportation needs of the Peninsula transportation dependent;

- identify and coordinate the transportation activities of Peninsula social service agencies; and

. demonstrate the feasibility of a taxi loop or jitney service from neighborhoods with concentrations of transportation disadvantaged to key destinations so that a social service agency will assume service delivery responsibility for one such loop.

Easyride's special service brokerage efforts concentrated on:

. providing transportation service to the handicapped (including handicapped elderly persons) through Handi-Ride; and

. coordinating special services transportation vehicle use through a 16(b)(2) procurement policy and a vehicle leasing program.

7.3.1 Handi-Ride

Handi-Ride is a demand-responsive transportation service to the transportation handicapped which is operated in compliance with U.S. Department of Transportation (DOT) Section 504 requirements.* The service is provided to individuals who cannot, without special assistance, ride Pentran buses.

Easyride, through Handi-Ride, was successful in providing service to a population segment previously unserved by public transportation. The service's consistently high ridership demonstrates the need for such service on the Peninsula.

Easyride exhibited flexibility in its management of Handi-Ride. Service arrangements were altered twice in attempts to reduce costs while, at the same time, meeting increased service demands. Service delivery by two taxi operators was replaced with service delivery by a social service agency supplemented by a taxi operator. This change was made to permit centralized trip scheduling. This, in turn, increased pooling among riders and thereby reduced costs. It also permitted Easyride to use social service agency personnel to provide the service. Then, Easyride assumed service delivery responsibility. This was done because of ridership increases, and Easyride believed it could provide the service at a cost lower than that of the social service agency. To supplement this service, Easyride contracted with a taxi operator to serve peak-period trips which it could not accommodate and to serve isolated early morning and late afternoon trip requests.

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* See footnote page 25.

Easyride successfully combined public and private operators to provide Handi-Ride services. The supplemental taxi service enabled Easyride to use its own drivers only at times when there were enough trips to make it worthwhile. This arrangement optimized the utilization of Handi-Ride staff and vehicles and helped to contain program costs.

A comparison of the costs of the two types of Handi-Ride services revealed that costs per passenger trip for Easyride-provided service ($5.76) were lower than those for taxi company-provided trips ($6.92). The cost per passenger trip for the combined service was $6.21. Several factors contributed to the higher taxi company costs. The factors included lower taxi company vehicle occupancies because of Easyride scheduling arrangements, and higher costs because capital and overhead costs were added to taxi company trips. It is unclear whether, if cost differences resulting from these factors were accounted for, taxi service costs would still be higher. It may be that the peak use of public service combined with the flexibility of taxi service, as Easyride has done, is cheaper than wholly publicly or privately provided service.

It is desirable to periodically compare the relative costs of Easyride providing the Handi-Ride service with an alternative organization providing the service. When the comparison is made, it is necessary to include the indirect Handi-Ride costs borne by Easyride, Pentran, and outside sources, as was done in this evaluation. The actual costs of Handi-Ride service provided by Easyride are heavily dependent on the allocation of external subsidies to this service.

7.3.2 16(b)(2) Procurement Policy

Easyride reviewed the applications for 16(b)(2) vehicles in efforts to coordinate the purchase and use of social service agency vehicles. If opportunities for coordinated use of existing vehicles existed, Easyride offered to act as an agency's broker to arrange alternative service. If not, Easyride offered to assume the titles of the 16(b)(2) vehicles so that it could coordinate the vehicles' use.

Easyride has reviewed three 16(b)(2) applications to date. No alternatives were identified for two of the applications. Easyride offered to assume the vehicles' titles from the two applicants. Both applicants declined Easyride's offer. Easyride offered the third applicant an alternative to purchasing a new vehicle and this alternative was accepted.

Easyride's experience with its 16(b)(2) procurement policy indicates that similar review programs can be effective coordination tools if the broker can offer alternatives to 16(b)(2) vehicle purchase. Easyride undoubtedly was aided in its implementation of this policy by Virginia's reliance on Easyride's recommendations. Brokers considering similar programs should secure state cooperation.

Title (ownership) transfer of new 16(b)(2) vehicles from social service agencies to the broker, a central element of Easyride's 16(b)(2) review program, did not prove as useful in achieving coordination as did offering alternatives. Vehicle ownership is not necessary for brokering vehicle use. Offers to assume ownership may appear threatening to an agency, thereby creating distrust and undermining future opportunities for coordinating vehicle use.

7.3.3 Vehicle Leasing Program

Easyride instituted a vehicle leasing program whereby PTDC vehicles are leased to Peninsula social service agencies. The program's objective was to combine and coordinate services under a "unified public transportation system" to eliminate service duplication and, as a result, reduce total public expenditures.

A central public leasing program may prove a useful technique in coordinating special transportation services--especially when the leasing agency is the same as the coordinating agency. Leasing vehicles in and of itself will not ensure that special transportation services are coordinated. It does, however, provide the coordinating agency with a certain amount of leverage.

It is suggested that brokers implementing leasing programs only lease to agencies that need vehicles on a part-time basis. This will encourage fuller use of a smaller fleet of vehicles. Also, for agencies that cannot afford to purchase and maintain vehicles, this may enable them to provide service to their clients. Leasing vehicles on a full-time basis to a social service agency does not necessarily encourage the coordination of special transportation services. Brokers with limited funds may also want to broker special services transportation by coordinating existing services and vehicles instead of or in addition to introducing a new supply of vehicles.

7.4 ADDITIONAL EASYRIDE BROKERAGE ISSUES

Another major goal of the demonstration project was:

> To coordinate all transportation providers on the Peninsula, both public and private, in an attempt to maximize service, and to include the design of new or altering of existing modes.

To achieve this goal, Easyride:

- referred service to private bus operators which Pentran (the fixed-route bus operator) could not provide;
- recommended Pentran bus schedule adjustments based on employment site survey results in an effort to improve bus productivity; and
- marketed Tidewater Regional Transit (TRT) vans on the Peninsula.

Conclusions pertaining to these three activities are presented below.

7.4.1 Private Carrier Participation

Easyride was unable to solicit strong support and active involvement from most private carriers serving the Peninsula. Easyride, as a part of the PTDC, may have been viewed as a threat by the private operators. Subsidized Pentran (PTDC) service did and does compete with private operators for service to the Newport News Shipyard. Private operators may have viewed Easyride's overtures as an attempt by the PTDC to learn more about their markets with a view toward substituting Pentran service for private service.

Further, private operators may have perceived limited benefits from cooperating with Easyride. To remedy this, brokers could identify the market for private bus service before seeking private carrier participation. In this way, a broker could demonstrate that cooperation would be profitable to the private carriers when enlisting their participation.

Despite the problems associated with obtaining the cooperation of most private carriers, Easyride's limited contacts proved useful in serving Peninsula transportation needs. Easyride was able to refer two school groups to private operators who now provide service. Also, a private operator replaced a cancelled Pentran bus run as a result of Easyride efforts.

7.4.2 Brokerage and Fixed-Route and Fixed-Schedule Transit

Easyride used the data from its survey sites to recommend service adjustments to Pentran bus routes. Schedules of two bus trips were altered and a route of one bus trip was extended, based on Easyride recommendations to improve bus productivity.

Even though these changes had little effect on the bus trips' productivity, the approach may prove valuable to other brokers and transit operators. Survey data can be used to refine or extend existing routes, to assess the feasibility of new routes, and to identify existing services which are not cost-effective.

Two major benefits of a brokerage program housed in a transit operating agency are to:

- provide a service alternative to extending conventional fixed-route and fixed-schedule transit service to new areas where such service extensions are not financially warranted; and

- provide a service alternative when it is necessary to curtail or eliminate existing fixed-route transit services which are not cost-effective.

Both of these benefits are of potential major importance to transit agencies, as public sector contributions to their operating budgets are curtailed while operating costs continue to rise.

Although these potential benefits were identified by the PTDC in the SMD grant application, the demonstration did not focus on achieving the second benefit noted above. The potential cost containment benefits of a brokerage program lodged in a transit agency do exist, however, and may be of increasing importance to transit agencies confronted with increasing costs and decreasing public subsidies.

7.4.3 Vanpool Issues

Visual inspection of Newport News Shipyard parking lots suggested that numerous private vanpool operators serve the shipyard; no quantitative data are available. Vanpooling to the site is encouraged by:

- relatively long commuting distances;

- scarce parking at the Shipyard;

- a large work force (about 20,000 employees);

- traffic congestion in the vicinity of the Shipyard; and

- uniform and regular shifts.

Almost all of the TRT-leased vans operating on the Peninsula serve the Shipyard.

Peninsula experience suggests that if the incentives are great enough, private vanpooling will occur. Vanpooling involving vehicles leased from public agencies may encourage additional vanpooling in some cases where the incentives for vanpooling do not outweigh the risks of van ownership.

7.5 PROSPECTS FOR FUTURE PTDC FUNDING OF EASYRIDE

Federal funding for the Easyride demonstration expires in June 1982. At this time, the PTDC has not decided whether to assume Easyride funding. This decision ultimately depends on whether the PTDC perceives Easyride to be an effective program.

Easyride has, to date, proved useful to the PTDC in several respects. First, it has enabled the PTDC to provide service in a less costly manner than expanding fixed-route bus service. Easyride provides service to many suburban Peninsula employment sites that cannot be served by Pentran in a cost-effective manner.

Second, it has enabled the PTDC to provide an alternative to traditional fixed-route bus service. For example, the developers of the Oyster Point Industrial Park asked the PTDC to provide them with bus service. Even though the PTDC could not extend bus service to the site, it was able to serve the site through an Easyride survey.

Recent discussions with PTDC members indicated that the PTDC perceived Easyride as having successfully completed the first phase of its operations--the identification of Peninsula transportation needs and available supply. The PTDC has yet to direct Easyride to focus its efforts on one of the other major goals identified in the SMD grant application, namely:

> To investigate and promulgate the feasibility of paratransit service as a substitute for, or feeder to, fixed-route bus service. Specifically: to develop and analyze alternative paratransit methods to turn around or replace uneconomical bus service, to recruit sponsors for such paratransit, and to provide technical assistance for establishing the alternatives.

This question has become crucial because the PTDC is faced with: (1) local opposition to increased funding; (2) reduced Federal operating subsidies; (3) no operating subsidies from Virginia; and (4) rising transit deficits. The PTDC may be forced by these financial exigencies to curtail fixed-route bus service and to use Easyride to provide an alternative service.

Another factor influencing the PTDC decision whether to fund Easyride is that the brokerage demonstration has broadened the PTDC view of its role in the community from that of a transit operator to that of a "mobility facilitator." Because of this change in self-image, the PTDC may elect to substitute alternative transportation services provided by Easyride in those situations in which existing bus services are no longer cost-effective.

One proposal currently being discussed on the Peninsula is to combine the Easyride and Pentran planning and marketing staffs into an Office of Brokerage. This reorganization would allow the PTDC to integrate and coordinate bus and alternative service planning and to continue Easyride functions at little added expense.

7.6 FUTURE BROKERAGE APPLICATIONS

The Easyride demonstration suggests that there are several factors, in addition to the brokerage program itself, which affect participation in brokerage programs and the increase in ridesharing resulting from the brokerage program. These are:

- the size, number, and proximity of an area's employers which affect the pool of potential ridesharing partners;
- the number of ridesharing incentives, such as long commute distance, a limited parking supply, and HOV facilities, which operate to encourage ridesharing; and
- the willingness of area employers to commit resources to employment site promotional efforts.

Communities considering whether a similar brokerage program would be appropriate for them should take these factors into account.

The Easyride demonstration also suggests that a transportation broker can perform a valuable function as part of a transit authority. This assumes the brokerage function enables the transit authority to provide service in those situations in which conventional fixed-route bus service is not cost-effective.

Start-up problems experienced by Easyride within the PTDC underscore the need for strong transit board leadership when instituting a brokerage program in a transit authority. The broker's functions within the transit authority must be clearly defined by the board so that the complementary role of the brokerage activity and conventional fixed-route transit services are understood.

Easyride's experience also emphasizes that brokerage programs require early definition and focus. Brokerage offers a wide range of opportunities. A realistic course of action must be defined when the program is initiated to avoid overextending staff and resources and to help ensure that program goals are accomplished.

APPENDIX A

EASYRIDE EMPLOYER BROCHURE

RIDESHARING.

IT'S THE GROUP SAVINGS PLAN FOR YOUR EMPLOYEES.

The Problem

Mass transit is obviously the best way to get to and from work economically. Except that trends created over the last 30 years, or so, have made it difficult for traditional mass transportation systems to efficiently handle the commuter load. Increasing numbers of American workers, with the freedom and mobility allowed by the automobile, have moved to housing developments in the suburbs. As people pursued the American "dream" of home ownership, transit systems faced the relatively low density of scattered suburbia. These new population patterns made it virtually impossible to provide acceptable service levels.

The Bigger Problem

Until the dual problems of inflation and rapidly rising fuel prices began squeezing budgets, few gave much thought to riding the bus. That was for the other people. Then the energy crunch hit. Not only were commuters paying more for gasoline; but in many instances they found themselves waiting in line to buy it. But still they found bus service lacking in many suburbs.

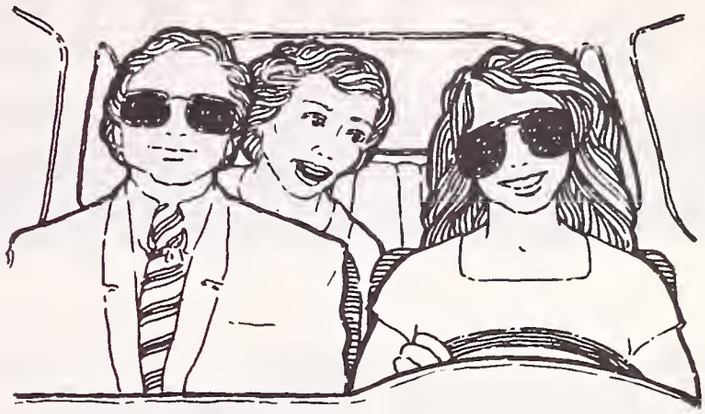
The Solution

So enter ridesharing. Systems like Easyride were created to come up with viable alternatives to the inefficiencies of single-occupant vehicles and the costs of providing adequate suburban commuter bus service. On the Peninsula both Easyride and Pentran operate under the Peninsula Transportation District Commission to create the most effective and efficient transportation system possible. Pentran studies have resulted in better service to more people through new routes and schedules. But the complexities of the Peninsula's transportation problems cannot be solved by bus service alone.

Easyride has the awesome responsibility of filling the gap. Our only means of achieving our objectives — reducing traffic congestion, lowering pollution levels caused by hydrocarbon emissions and conserving vital energy resources — is to change the driving habits of a large number of Peninsula commuters. To do that, we need your help.

How it Works

We are scheduling extensive surveys at major employing units which, when fed into our computer, will match workers who are potential ridesharers. Your help is needed to encourage your employees to fill out questionaires, then to urge them to form car and van pools from the match lists generated by the survey. To create a workable ridesharing program requires management commitment and leadership.



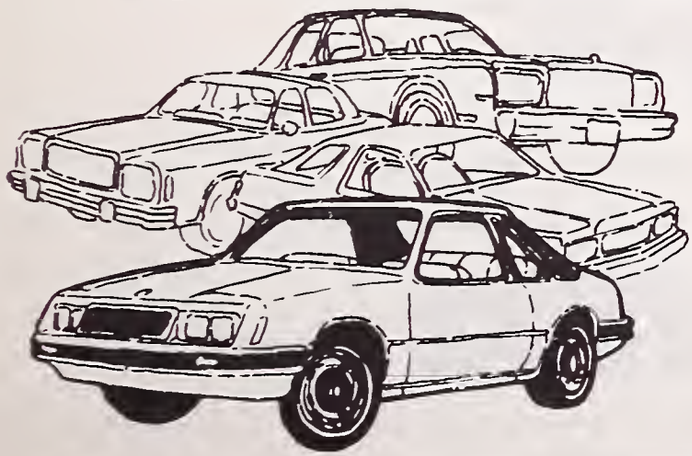
Though the exact methodology differs at each work-site surveyed, the basic elements remain much the same. Management is asked to provide Team Leaders — usually first line supervisors — who will serve as our direct link to the individual worker. They are briefed by Easyride personnel, given ridesharing promotional literature and questionaires to be filled out by each worker. After computer processing, they distribute the match lists to individuals who may then readily form car or van pools. Most surveys, from the initial meeting to final matching, take about six weeks, but vary according to the number of employees.

Everyone Benefits

Besides being an important effort on a broad national basis, with the attendant social benefits, there are also direct benefits for all participants. Including the employer.

First, if a single driver gets in a four-passenger pool, there's an automatic savings of 75% of commuting costs. For the typical American worker, that translates into the equivalent of an annual pay raise of over $1,000. And that makes for a happier employee.

Experience also has shown that car and van pooling reduces absenteeism, boosts general employee moral, and — not inconsequentially — reduces the need for parking spaces. Many employers have even found that a successful ridesharing program improves union relations. What's more, employers actively supporting ridesharing enhance their public image.



The Group Savings Plan.

Start Now We know ridesharing works. What we need is your support to make Easyride's Group Savings Plan work for your employees. Get started by calling Easyride at 838-RIDE to schedule a meeting to discuss your particular situation. We're both part of the solution to a problem we all face.

3400 Victoria Boulevard Hampton, Virginia 23661

838-ride

APPENDIX B

SAMPLE PAGES FROM EASYRIDE TEAM LEADER BROCHURE

The Group Savings Plan.

easyride

Team Leaders bring it all together.

Selling the idea

Example			Your Cost
	10	Distance to Work	
×	2	Trips per Day	×
	20	Miles per Day	
×	5	Days per Week	×
	100	Miles per Week	
×	25¢	Cost per Mile (Federal Estimate)	× ¢
$	25.00	Cost per Week	$
×	50	Work Weeks per Year	×
= $	1250	COST PER YEAR	= $

Depending on your employer's particular organization structure, you will probably be responsible for working with about 25 workers. If your team is too large, we suggest that you designate responsible subordinates to act as sub-Team Leaders to get the ratio down to no more than 25 to 1.

Each Team Leader is, in effect, an Easyride salesman. It is your job to thoroughly explain the benefits of ride-sharing and convince your team members that pooling benefits not only the individual worker, but your community and that big world we all live in, as well. Materials will be provided so that every team member will have a brochure explaining all the individual benefits, plus a chart so they can calculate their own commuting costs. (An example is reproduced on this page.)

Computer matching

At major Peninsula work sites like yours, the biggest part of our job is to use our computer to match up workers who may potentially form van or car pools. Consequently, it is extremely important that all Team Leaders, as part of their effort to push the idea of pooling, make certain that *every* worker fill out and return a confidential questionnaire. Be sure to stress that each questionnaire needs to be as complete and accurate as possible.

Even those who have no interest in getting in a pool should fill out a form, because the match list we provide could even help them someday when their car breaks down.

The actual computer-matching process will take from two to six weeks. At the end of that time Easyride personnel will distribute match lists to Team Leaders, who will then give them to each individual worker.

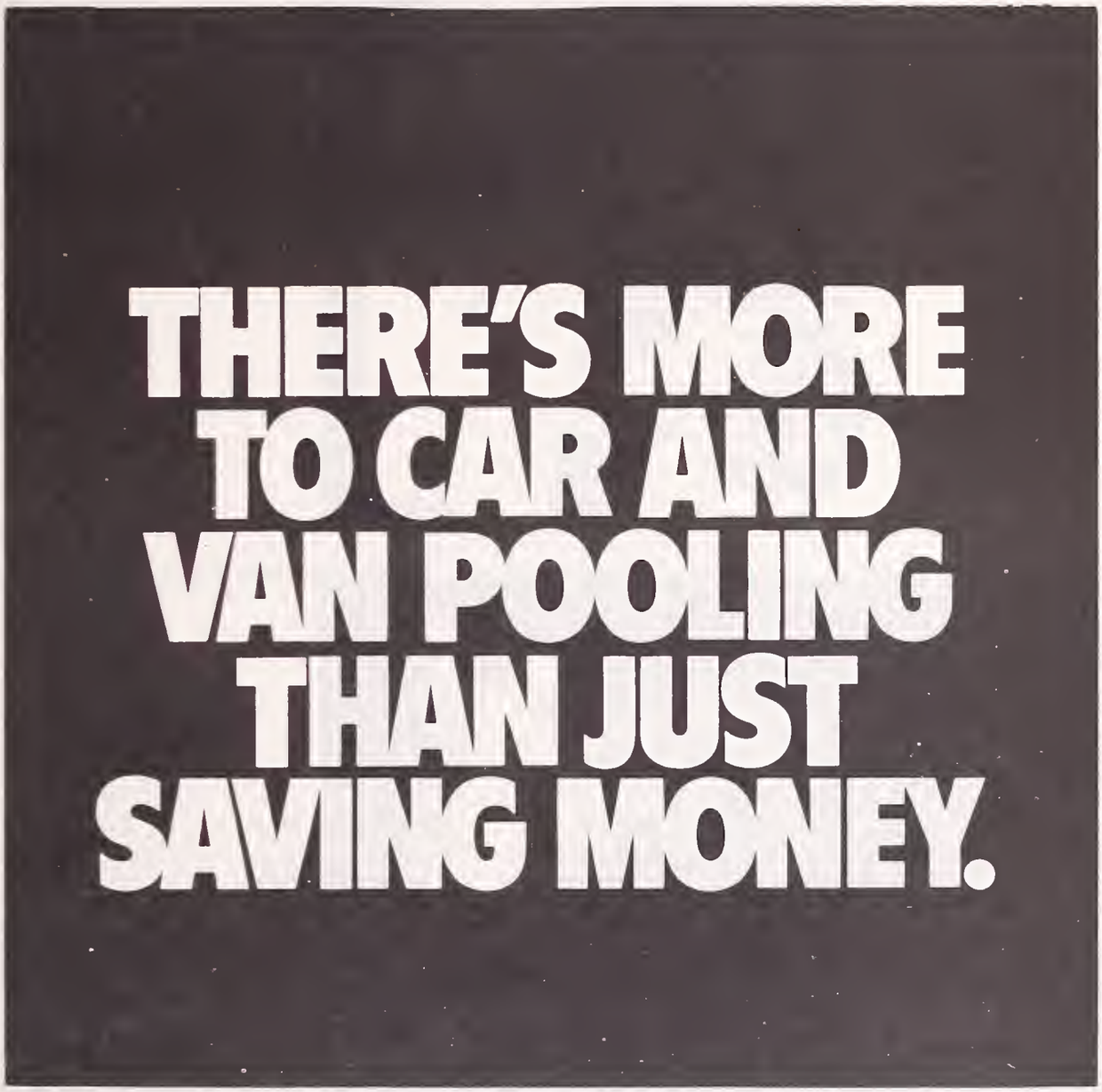
These match lists will contain the name, address, home phone, work location, work phone and working hours of every other worker living in the same general neighborhood. It will then be up to the individual worker to contact the others on the match list to start their own car or van pool.

In addition to generating match lists, the questionnaires will also help us identify a number of transportation alternatives, including subscription bus service, car and van-pooling and Park & Ride lot service.

Because these questionnaires are so important, be sure that every single worker fills it out and gets it back to you on time. Without the personal information they provide, we could never do our job—matching the system to the people.

APPENDIX C

SAMPLE PAGES FROM EASYRIDE EMPLOYEE BROCHURE


THERE'S MORE
TO CAR AND
VAN POOLING
THAN JUST
SAVING MONEY.

Example			Your Cost
	10	Distance to Work	
×	2	Trips per Day	×
	20	Miles per Day	
×	5	Days per Week	×
	100	Miles per Week	
×	25¢	Cost per Mile (Federal Estimate)	× ¢
$	25.00	Cost per Week	$
×	50	Work Weeks per Year	×
= $	1250	COST PER YEAR	= $

SAVING MONEY

Yes — the obvious benefit from car or van pooling *is* saving money. And with the ever-rising cost of operating a vehicle, your savings can amount to a hefty sum.

Suppose you commute the national average of five thousand miles each year. At 25¢ per mile (estimated by the U.S. Department of Transportation to be the *real* cost of driving your car), your annual commuting expense is $1250. But if you formed a car pool with three other people, you'd each save 75% of that amount, — $937.50 *tax-free*, yearly.

MEETING NEW FRIENDS

To help you obtain these savings, Easyride provides participating individuals with a current list of riders and drivers from our master computer files. The names are compiled from the questionnaire you and other savings-conscious commuters return to us; they include people who share your work hours and live within a convenient distance of your home. So, in selecting a compatible car or van pool, you may find a pleasant increase in your circle of friends while *enjoying* the daily commute.

VAN POOLING

A popular new option called "van pooling" is available to commuters in groups of eight or more. Qualified individuals that assemble a larger group of riders will receive a 10-, 12- or 15-passenger luxury van from Easyride. The cost of operation is divided among all riders; the driver rides free for his service. As an added benefit, the driver can use the van for personal travel on evenings and weekends at a nominal fee.

Ride-sharing *does* mean savings. And that's important. But once you participate in our computer-matched program, you'll discover it's much more than economizing. Traveling in congenial company and building new, rewarding relationships can make the daily commute a truly enjoyable part of your day. So call Easyride at 838-RIDE or contact a team leader at work for more details on the commuters' ride-sharing plan best suited to you.

A QUICK GUIDE TO RIDESHARING

The important thing to remember about car-pooling is that your pool is not a binding contract. Some members of the first group you form may not work out. But if you follow the tips below, you'll be on your way to reaping the benefits of the Easyride Group Savings Plan.

- Give your pool time to work. At first it will be new to everyone, so expect it to take a few weeks to get going.
- Make a list of rules:
  1. Whether to smoke, or not. And if smoking is allowed, how about pipes and cigars?
  2. If a radio is to be played, agree on stations or types of music.
  3. Decide about stops along the way. The pool is for everyone's benefit, so it's a good idea not to have one person inconvenience the rest of the group.
  4. Set a maximum waiting time. Not everyone is on time everytime, but five minutes is usually a good maximum.
  5. Vote on important issues. If one pool member continuously violates the rules, vote him or her out.
- Check with your individual insurance agent. Most companies offer a discount for fewer miles or days driven.
- Keep in mind that you're not married to the pool. If you have shopping to do on Thursday, go ahead and drive to work alone. Just be sure to let the other pool members know in advance.
- Call Easyride at 838-RIDE for answers to any questions about starting and operating a successful pool.

838-RIDE easyride

APPENDIX D

EASYRIDE VANPOOL BROCHURE

VAN POOL.

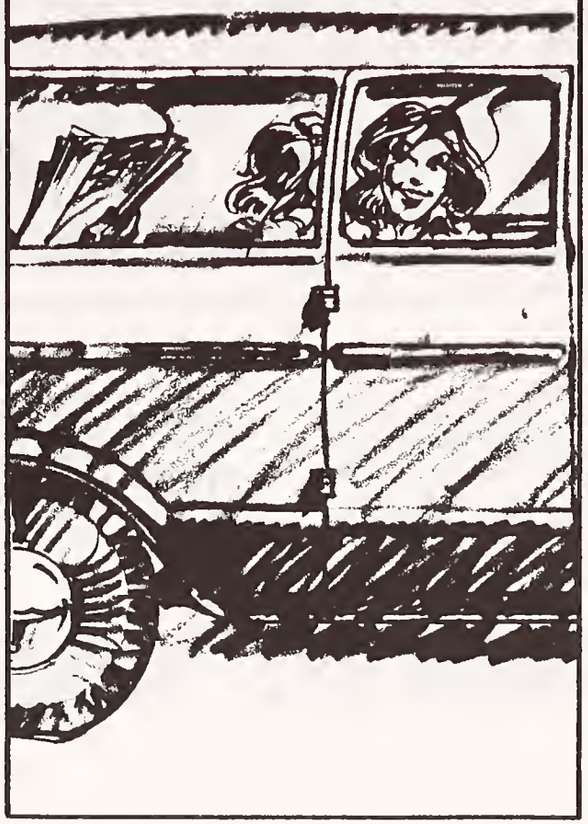
AN INSIDE LOOK AT A GREAT NEW WAY TO GET TOGETHER TO GET TO WORK.

THE EASYRIDE VANPOOL. WHAT'S IN IT FOR YOU?

First you might want to know what's EASYRIDE? And what's a vanpool? EASYRIDE is the ridesharing effort of the Peninsula Transportation District Commission. Its job, as a transportation broker, is to design systems to fit the people. Coming up with ways to get more people where they're going—with fewer cars on the area's roads. One of the best ways is by vanpool — a 10, 12 or 15 passenger van that takes commuting employees to and from work each day. Riders share all costs through fares collected by the driver, who usually rides free.

EASYRIDE is now offering vanpool service to the Hampton/Newport News area in cooperation with Tidewater Regional Transit in Norfolk.

The savings are terrific, but for all the advantages, look a little deeper into this brochure.



ANATOMY OF A VANPOOL. THE BENEFITS ARE OBVIOUS.

RIDING BENEFITS. You can relax while you ride safely to work in air conditioned comfort. Settle back in spacious seats, catch an extra 40 winks, read, or chat with the friends you'll find among your vanpool group. Your seat is guaranteed, and more than likely, you'll be picked up right at your door. You commit yourself only for a month at a time, but take a few trips without the hassle of rush-hour driving and you'll probably be hooked for good.

MONEY-SAVING BENEFITS. You'll save a bundle commuting in a van instead of driving alone. Just how much depends on how far you travel, how many in your van and the ever-rising cost of gasoline. You'll also save on parking fees, wear and tear on your car and perhaps, even on your auto insurance. A schedule enclosed in this brochure tells you how much you can expect to pay as your one low monthly fare. If it's missing, or for more information, call 838-RIDE.

DRIVER BENEFITS. As a qualified driver, you would not only ride free, but you and your spouse would have the use of the van anytime it's not being used for vanpooling. Vans are leased to drivers on a non-profit basis by EASYRIDE and TRT, who are also responsible for maintenance and insurance, as well as helping the driver find riders. Drivers must meet certain age, credit and driving record requirements. For further information, contact EASYRIDE or TRT.

EMPLOYER BENEFITS. Your company will like the way more employees arrive on time, in a better frame of mind, and with less congestion in the parking lot and parking areas around the site. The number of expensive employee parking spaces can be reduced, or additional ones avoided. EASYRIDE will provide employers computer-matching services to organize vanpools among their employees (and perhaps those of neighboring businesses). Employees will consider it a company benefit and the community will consider it a public-spirited effort, yet all at no cost to the company.

COMMUNITY BENEFITS. All those who share a ride in vanpools are doing their share to cut pollution, relieve rush hour traffic and save vital gasoline. Every vanpool saves around 5000-7000 gallons of gasoline a year! So while you're riding in comfort, you can take comfort in all the good you're doing for everyone else.

APPENDIX E

EASYRIDE MATCHLIST SURVEY TEAM

0000 33903

easyride PENINSULA TRANSPORTATION DISTRICT COMMISSION **838-RIDE**

1 Name First _____ Last _____

Home Address Number _____ Street _____

City _____ State _____ Zip Code _____

2 County in which I live: _____.

3 Nearest major intersection: _____.

4 My employer is: _____.

Work Address Number _____ Street _____

Building or Dept. _____ Room _____ GATE # _____

5 How I usually get to work: ☐ Carpool with _____ others

☐ Drive Alone ☐ Ride Bus ☐ Walk or Bike ☐ Other _____

6 My usual working hours are: Reporting Time _____ ☐ a.m. ☐ p.m. Departing Time _____ ☐ a.m. ☐ p.m.

(If you work other shifts, fill out a separate questionnaire for each shift you are likely to work.)

Are your hours flexible by more than 15 minutes? ☐ Yes ☐ No

7 I want to be included for carpool matching. ☐ Yes ☐ No

8 I am interested in vanpooling. ☐ Yes ☐ No

9 My phone number is: _____-_____ Extension: _____

☐ Home ☐ Work

10 You may print my home address on other employees' lists.

☐ Yes ☐ No

FOR OFFICE USE

12 _____

HI 36 _____ x _____ . 39 _____ y

WI 42 _____ x 45 _____ y

63 _____

PLEASE NOTE: The information requested on this form is voluntary. If you check "no" on question #7, all data will remain strictly confidential and will be used for planning purposes only. If you check "yes" on question #7, your data **will** be made available to other employees interested in ridesharing and **may** be given to commerical transportation providers interested in setting up service for you.

SAVE MONEY BY SHARING A RIDE TO WORK

Are you interested in reducing your costs of getting back and forth to work? If so please read this information.

EASYRIDE is a project of the Peninsula Transportation District Commission whose job it is to help people find alternatives to driving their own cars to and from work each day. EASYRIDE provides computer matching for those employees interested in carpooling.

Think of the money you could save each month if you were a member of a carpool. Even if you carpooled only 2 or 3 days a week you could save substantial money each month.

This program is not mandatory, that is if you are not sure about carpooling there is no obligation on your part to participate in a carpool.

After you have completed the questionnaire, place it in the attached business reply envelope (no postage necessary) and drop in any mail box. The information will be fed into a computer and your name will be matched with others living in your area who work at the same place with the same hours as yours and who also are interested in carpooling.

If you checked yes to question #7 you will receive a list of names and telephone numbers by mail of people who live near you and are interested in carpooling. At your own convenience, you can contact them to form a carpool.

So complete the questionnaire and mail it as soon as possible, you lose nothing but can save big bucks.

EASYRIDE, acting as a transportation broker, can also match your needs with available vans or large buses upon request.

FOR RIDESHARING INFORMATION CALL EASYRIDE 838-RIDE

APPENDIX F

EASYRIDE SURVEY STATISTICS

SURVEY SITE	RETURNED SURVEYS			MATCH LIST REQUESTS		
	NUMBER OF EMPLOYEES	NUMBER	PERCENT OF SITE EMPLOYMENT MEAN = 34	NUMBER	PERCENT OF SITE EMPLOYMENT MEAN = 12	PERCENT OF RETURNED SURVEYS MEAN = 47
Badische	882	670	76	256	29	38
Surrounding Sites	614	184	30	80	13	43
Bendix	1,000	64	6.4	42	4.2	66
Surrounding Sites	268	-	-	-	-	-
Williamsburg Businesses						
- College of William & Mary	1,200	46	4	16	1.3	35
- Eastern State Hospital [1]	1,500	1,170	78	449	30	38
- Additional Sites	625	158	25	91	.5	45
Ft. Eustis [2]						
First Survey	5,000	2,398	48	900	.2	38
Second Survey	5,000	2,056	41	616	.1	30
Hampton Downtown	2,200	941	43	263	12	28
Howmet	994	722	73	266	27	37
Langley Air Force Base	6,000	741	12	260	4.3	35
Mary Immaculate Hospital	200	63	32	43	22	68
NASA						
First Survey	5,000	2,213	44	910	18	41
Second Survey	5,000	728	15	462	9	63
Newport News Downtown	1,324	605	46	203	15	34
Newport News Shipbuilding & Drydock Company	20,000	300	0.2	257	0.1	86
Patrick Henry Hospital & Peninsula Hospital Services	381	201	53	70	18	35
PTDC	185	66	36	37	20	56
Thomas Nelson Community College	N/A	169	N/A	112	N/A	66
Veterans Administration Hospital						
First Survey	1,200	361	30	250	21	69
Second Survey	1,200	213	18	128	11	60
Yorktown Naval Weapons Station	2,600	335	13	112	4.3	33

N/A = Not Readily Available

[1] The numbers for Eastern State Hospital are inflated because many of the staff work rotating shifts and were instructed to fill out a questionnaire for each shift worked. Numerous employees completed two or three questionnaires.

[2] Ft. Eustis employs 9,000 individuals; the base ridesharing coordinator, however, estimates that of these, approximately 5,000 are a market for ridesharing due to the number of students at the base only for a short period of time, and the number of military personnel who live on base.

APPENDIX G

EVALUATION TELEPHONE SURVEY FORM

EVALUATION TELEPHONE SURVEY FORM

1 1
1 2
2207
3 4 5 6 7

8 9

SECTION A - MATCHLIST REQUESTED

Good evening Mr./Ms._____. My name is _____ and I represent the Easyride carpool and vanpool ridesharing program. We helped your employer distribute questionnaires and matchlists for ridesharing and we selected your name randomly from the matchlist files. We are calling people this evening to find out how they feel about our services and to find ways for Easyride to better serve our community. Could you take a few minutes and answer some questions about your worktrip and the Easyride program?

(If reluctant, assure complete confidentiality for responses.)

1. Did you attend any presentations or meetings about the Easyride program?

Q.1 [ ] 10

_____yes
_____no

2. Have you heard about Easyride or community carpooling: READ LIST

Q.2

_____at work (11)
_____on the radio (12)
_____in a local newspaper (13)
_____in a magazine (14)
_____on TV (15)
_____at a community event (16)
_____on a highway sign with a carpool information telephone number (17)
_____on a highway billboard (18)
_____on a bumper sticker (19)
_____on a T-shirt (20)
_____or anything that I have not mentioned? (specify)_____ (21)
_____(none of the above) (22)

3. When you completed the Easyride matchlist questionnaire, you requested a carpool matchlist. Why were you interested in carpooling or vanpooling?

Q.3

_____reduce commuting costs (23)
_____do not own auto (24)
_____free car for use by other family members (25)
_____avoid auto purchase (26)
_____dislike driving (27)
_____add members to carpool or vanpool (28)
_____employer encouragement (29)
_____conserve energy (30)
_____reduce pollution (31)
_____other (specify)_____ (32)
_____did not wish to learn more about carpools or vanpools (33)

4. Did you receive a computer matchlist for carpooling and vanpooling?

Q.4 [ ] 34

_____yes
_____no
_____don't remember → SKIP TO QUESTION 12

5. How long after you completed the questionnaire did you receive the computer matchlist?

_____weeks
_____months
_____don't know

Q.5 [ ][ ] 35 36 (weeks)

6. Approximately how many names were on your matchlist?

_____names
_____don't know

Q.6 [ ][ ] 37 38

7. Did you try to contact any of the people on your list?

_____yes → How many?_____
_____no

8. Did any of the people on your list contact you?

_____yes → How many?_____
_____no

Q.7 [ ][ ] 39 40 Q.8 [ ][ ] 41 42

IF BOTH 7 AND 8 ARE NO, SKIP TO QUESTION 11

9. As a result of these contacts, READ LIST

Did you:

_____start or join a new carpool, or
_____join an existing carpool?

→ SKIP TO QUESTION 11

Q.9 [ ] 43

Did you:

_____start or join a new vanpool, or
_____join an existing vanpool?

→ A. Was the van in your vanpool leased from TRT or Easyride?

_____yes
_____no → SKIP TO QUESTION 11

Q.9a [ ] 44

_____(none of the above) → SKIP TO QUESTION 10

B. Is this vanpool still operating with a TRT or Easyride van?

_____yes → TERMINATE INTERVIEW WITH STATEMENT BELOW

Q.9b [ ] 45

_____no → SKIP TO QUESTION 11

STATEMENT

Because of Easyride's special interest in vanpoolers, we have some additional questions we would like to ask you. Rather than continuing at this time, we'll be distributing questionnaires through vanpool drivers and hope you will assist us when you receive one. Thank you for your help this evening. Good-bye.

10. Why do you feel these contacts did not result in a carpool or vanpool being started or expanded?

Q.10

_____no longer interested in pooling — 46
_____lived too far away — 47
_____worked too far away — 48
_____not friendly — 49
_____would not make commitment — 50
_____work schedule conflicts — 51
_____required auto at work — 52
_____other (specify)_____ — 53

11. Did you feel there were major problems with your matchlist for forming a carpool or vanpool?

Q.11

_____no — 54
_____not enough names — 55
_____people on the list lived too far away — 56
_____people on the list worked too far away — 57
_____work schedules were too different — 58
_____took too long to get the matchlist — 59
_____didn't give enough information — 60
_____can't remember — 61
_____didn't know anyone on the list — 62
_____Other (specify)_____ — 63

12. How do you usually get to work?

Q.12

_____Drive alone → GO TO RED SECTION (B)

_____Carpool
_____Vanpool
→ GO TO YELLOW SECTION (C)

_____Bus
_____other
→ GO TO BLUE SECTION (D)

64

SECTION B - CURRENTLY DRIVE ALONE TO WORK

1. How long does it take you to get to work?

   _____minutes
   _____don't know

2. What is your one-way commute distance?

   _____miles
   _____don't know

3. Approximately how many miles per gallon does the car you drive to work get?

   _____mpg
   _____don't know

4. What is the year, make and model of the car you drive to work?

   _____year _____make _____model

5. Can you usually find parking close to work?

   _____yes
   _____no

6. Do you pay for parking or tolls?

   _____Parking: How much? $_____per_____.
   _____Tolls: How Much? $_____per_____.

   _____no

7. Has your employer, at any time, offered any of the following incentives to carpoolers: READ LIST

   _____reserved parking for carpoolers?
   _____parking spaces for poolers which are closer to the buildings
   _____work schedule flexibility?
   _____cash prize contests?
   _____or anything which I have not mentioned?
   (specify)_____
   _____(nothing)
   _____don't know

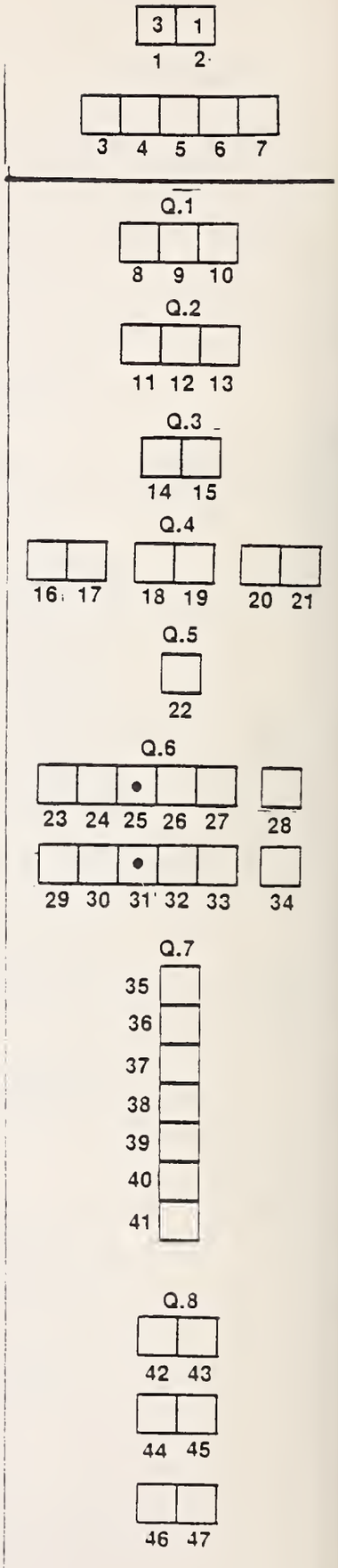
8. Do you occasionally use any other means to get to work?

   _____yes ⟶ What and how many one-way trips per week?

_____carpool	_____trips/week
_____vanpool	_____trips/week
_____bus	_____trips/week
_____taxi	_____trips/week
_____walk	_____trips/week
_____bike	_____trips/week
_____other	_____trips/week

   _____no

GO TO GREEN SECTION (E)



SECTION C - CURRENTLY CARPOOL TO WORK

1. How many members, including yourself, ride in the pool at least 3 times per week?

   _____members

2. How many of the people in the pool are: READ LIST

   _____family members
   _____neighbors
   _____co-workers

3. When did you join the pool?

   _____month _____year

   or

   _____months ago _____years ago

4. How long does it take to get to work when you pool?

   _____minutes
   _____don't know

5. How long would it take if you drove alone?

   _____minutes
   _____don't know

6. How many miles is it from your home to your workplace?

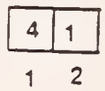
   _____miles
   _____don't know

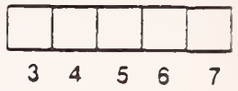
7. Are you the driver of the pool?

   _____always
   _____sometimes/share driving responsibilities → SKIP TO QUESTION 9
   _____no → SKIP TO QUESTION 10

8. As the pool driver, how many miles do you drive to work including passenger pickups?

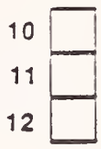
   _____miles
   _____don't know
   → SKIP TO QUESTION 15



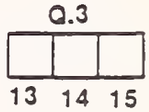


Q.1

Q.2

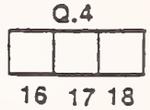


Q.3

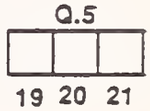


(months)

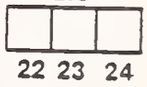
Q.4



Q.5

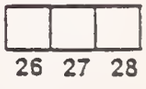


Q.6



Q.7

Q.8



9. As the pool driver, how many miles do you drive to work including passenger pick ups?

Q.9 29 30

_____miles
_____don't know

10. As a passenger how do you meet your pool in the morning?

Q.10 31

_____usually picked up at home
_____drive alone to a meeting place and park → SKIP TO QUESTION 14
_____drive other pool members to meet the pool
_____dropped off by someone going that way
_____ride with other pool members to meet the pool
_____walk to a meeting place

_____dropped off by someone who otherwise would not have made the trip → A. How far is it to your meeting place?

Q.10a 32 33

_____miles
_____don't know

11. Do you leave a car at home now that you previously drove to work?

Q.11 34

_____yes

_____no → SKIP TO QUESTION 15

12. Does anyone use that car while you are at work?

Q.12 35

_____yes
_____no → SKIP TO QUESTION 15

13. Is the car driven:

Q.13 36

_____more
_____less, or
_____about the same

than when you drove it to work?

SKIP TO QUESTION 15

14. How far is it to your meeting place?

Q.14 37 38

_____miles
_____don't know

15. How are the costs of the pool shared?

_____no money exchanged, take turns driving → SKIP TO QUESTION 17
_____driver free, passengers pay
_____equal cash payment for all driver(s) and rider(s)
_____riders do not pay → SKIP TO QUESTION 17

_____other (specify)_____

Q.15
39

16. How much do you pay for your pool?

$____per_____

Q.16
40 41 42 43 44 45

17. If you need new pool members, how would you look for them?

_____ask neighbors
_____ask co-workers
_____Easyride matchlists
_____through the carpooling office at work
_____advertise in the newsletter
_____board/ridesharing board at work
_____advertise in the local paper
_____haven't thought about it
_____other (specify)_____

Q.17
46 47 48 49 50 51 52 53 54

18. What do you like most about the pool?

_____get a ride since I don't have a car
_____saves money
_____is convenient
_____relief from driving stress
_____saves energy
_____reduces pollution
_____other (specify)_____

Q.18
55 56 57 58 59 60 61

19. What don't you like about the pool?

_____nothing is wrong; everything fine
_____dependence on others
_____the extra travel time
_____bad habits of other riders
_____sometimes late
_____doesn't allow for work schedule flexibility
_____too much commitment
_____fare schedule too rigid
_____other (specify)_____

Q.19
62 63 64 65 66 67 68 69 70

20. Do you have any rules or agreements about: READ LIST

_____smoking?
_____eating?
_____talking?
_____notifying people when you will not ride with the pool?
_____or anything which I have not mentioned: (specify)
_____

21. Has your employer ever offered: READ LIST

_____reserved parking for poolers
_____parking spaces for poolers which are closer to the buildings
_____work schedule flexibility
_____cash prize contests
_____or anything which I have not mentioned: (specify)
_____
_____(nothing)
_____(don't know)

22. Which, if any, of the benefits was the major factor in your decision to join a pool?

_____reserved parking for poolers
_____parking spaces for poolers whihc are closer to the buildings
_____work schedule flexibility
_____cash prize contests
_____other (specify)_____
_____none

23. What types of benefits would you like your employer to offer to pool members, if any?

_____preferential parking for poolers
_____free parking only for poolers
_____work schedule flexibility
_____cash prize contests
_____other (specify)_____
_____none
_____don't know

24. If you drive alone to work would you pay any parking fees or tolls?

_____Parking: How much? $_____ per _____.
_____Tolls: How much? $_____ per _____.
_____no

Q.20
71 ☐
72
73 ☐
74
75 ☐

4 2
1 2

☐☐☐☐☐
3 4 5 6 7

Q.21
8 ☐
9 ☐
10 ☐
11 ☐
12 ☐
13 ☐
14 ☐

Q.22
15 ☐
16 ☐
17 ☐
18 ☐
19 ☐

Q.23
20 ☐
21 ☐
22 ☐
23 ☐
24 ☐
25 ☐
26 ☐

Q.24
☐☐•☐☐ ☐
27 28 29 30 31 32

☐☐•☐☐ ☐
33 34 35 36 37 38

25. Do you occasionally use any other means to get to work?

Q. 25

_____yes ——→ What and how many one-way trips per week?

_____drive alone	_____trips/week	39 40
_____vanpool	_____trips/week	41 42
_____bus	_____trips/week	
_____taxi	_____trips/week	43 44
_____other	_____trips/week	

_____no

GO TO GREEN SECTION (E)

SECTION D - CURRENTLY BUS OR "OTHER" TO WORK

1. How long does it take you to get to work?

   _____minutes
   _____don't know

2. If you drove to work, how long would it take?

   _____minutes
   _____don't know

3. How far is it from your home to your workplace?

   _____miles
   _____don't know

4. If you take the bus or a taxi, what is the cost of a one-way trip?

   $_____
   _____don't know

5. If you drove to work would you pay any parking fees or tolls?

   _____Parking: How much? $_____ per _____.
   _____Tolls: How much? $_____ per _____.
   _____don't know

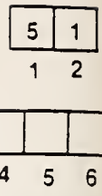
6. Do you occasionally use any other means to get to work?

   _____yes ⟶ What and how many one-way trips per week?

_____drive alone	_____trips/week
_____carpool	_____trips/week
_____vanpool	_____trips/week
_____bus	_____trips/week
_____taxi	_____trips/week
_____walk	_____trips/week
_____bike	_____trips/week
_____other	_____trips/week

   _____no

GO TO GREEN SECTION (E)



7 | 1
1 2

3 4 5 6 7

SECTION E - CARPOOLED AT THE TIME OF THE EASYRIDE SURVEY

CHECK RESPONDENT'S CURRENT MODE AND FOLLOW DIRECTIONS

☐ DRIVE ALONE

☐ CAR POOL OR VANPOOL → SKIP TO QUESTION 7

☐ BUS OR OTHER → SKIP TO QUESTION 12

1. At the time of the Easyride survey you indicated that you pooled to work. Were you in a:

   _____carpool, or
   _____vanpool

Q.1 ☐ 8

2. Has your residence or workplace changed since then?

   _____yes
   _____no → SKIP TO QUESTION 6

Q.2 ☐ 9

3. At the time of the Easyride survey how far was it from your home to your workplace?

   _____miles
   _____don't know

Q.3 ☐☐ 10 11

4. How long did it take you to get to work?

   _____minutes
   _____don't know

Q.4 ☐☐☐ 12 13 14

5. Did your carpool pay any parking fees or tolls?

   _____Parking: How much? $_____ per _____.
   _____Tolls: How much? $_____ per _____.

   _____no

Q.5 ☐☐•☐☐ ☐ 15 16 17 18 19 20

☐☐•☐☐ ☐ 21 22 23 24 25 26

6. Why did you decide to start driving alone to work?

_____bought a car
_____new workplace or residence
_____need car for work
_____rotating shift
_____overtime requirements
_____irregular hours
_____pooling was inconvenient
_____pooling was unreliable
_____pooling took too long
_____did not like others in pool
_____other (specify)_____

Q.6
27 ☐
28 ☐
29 ☐
30 ☐
31 ☐
32 ☐
33 ☐
34 ☐
35 ☐
36 ☐
37 ☐

GO TO WHITE SECTION (F)

7. At the time of the Easyride survey you indicated that you were pooling to work. Where you in a:

_____carpool, or
_____vanpool?

Q.7
☐
38

8. Has your residence or workplace changed since then?

_____yes
_____no → **GO TO WHITE SECTION (F)**

Q.8
☐
39

9. At the time of the Easyride survey how far was it from your home to your workplace?

_____miles
_____don't know

Q.9
☐☐
40 41

10. How long did it take you to get to work?

_____minutes
_____don't know

Q.10
☐☐☐
42 43 44

11. Did your pool pay any parking fees or tolls?

_____Parking: How much? $_____ per _____.
_____Tolls: How much? $_____ per _____.
_____no

Q.11
☐☐•☐☐☐
45 46 47 48 49 50

☐☐•☐☐☐
51 52 53 54 55 56

GO TO WHITE SECTION (F)

12. At the time of the Easyride survey you indicated you were pooling to work. Were you in a:

_____carpool, or
_____vanpool?

Q.12
☐
57

13. Has your residence or workplace changed since then?

_____yes
_____no → SKIP TO QUESTION 17

14. At the time of the Easyride survey how far was it from your home to your workplace?

_____miles
_____don't know

15. How long did it take you to get to work?

_____minutes
_____don't know

16. Did your carpool pay parking fees or tolls?

_____Parking: How much? $_____ per _____.
_____Tolls: How much? $_____ per _____.

_____no

17. Why did you decide to stop pooling?

_____new workplace or residence
_____new bus service/bus schedule was changed
_____reduce commuting costs
_____more reliable
_____faster
_____more flexible
_____other (specify)_____

GO TO WHITE SECTION (F)

Q.13
58

Q.14
59 60

Q.15
61 62 63

7 2
1 2

3 4 5 6 7

Q.16
8 9 10 11 12 13
14 15 16 17 18 19

Q.17
20
21
22
23
24
25
26

9 | 1
1 2

3 4 5 6 7

SECTION F - DEMOGRAPHICS

1. Does your employer allow any flexibility in choosing the days of the week that you work?

   _____yes (specify) _____
   _____no

Q.1 ☐ 8

2. Does your employer allow any flexibility in the time you begin and end work each day?

   _____none
   _____up to 15 minutes
   _____15 to 29 minutes
   _____30 to 59 minutes
   _____1 to 2 hours
   _____more than 2 hours or complete flexibility

Q.2 ☐ 9

3. Does your job require the use of your car?

   _____not at all
   _____once a month or less
   _____2-3 times per month
   _____once a week
   _____2-3 times per week
   _____4 or more times per week

Q.3 ☐ 10

4. Does your job ever require that you work late?

   _____not at all
   _____once a month or less
   _____2-3 times per month
   _____once a week
   _____2-3 times per week
   _____4 or more times per week

Q.4 ☐ 11

5. Do you know about requirements to work late more than 1 day in advance?

   _____yes
   _____no

Q.5 ☐ 12

6. Do you work on a rotating shift?

   _____yes
   _____no

Q.6 ☐ 13

READ

To help us better understand the results of this survey, we need to ask you a few questions about yourself and your household. Please remember that your answers will be kept strictly confidential.

_____refused

☐ 14

7. Including yourself, how many people have full-time jobs?

_____

Q.7 [ ][ ] 15 16

8. How many members of your household have part-time jobs?

_____

Q.8 [ ] 17

9. Including yourself, how many people are in your household?

_____ → IF NUMBER EQUALS 1, SKIP TO QUESTION 12

Q.9 [ ] 18

10. How many members of your household are less than 16?

_____

Q.10 [ ] 19

11. Including yourself, how many drivers are in your household?

_____

Q.11 [ ] 20

12. How many vehicles are owned by members of your household?

_____

Q.12 [ ] 21

13. Do you have a driver's license?

_____yes
_____no

Q.13 [ ] 22

14. Are you between: READ LIST

_____16 and 20 years old
_____21 and 30 years old
_____31 and 40 years old
_____41 and 50 years old
_____51 and 64 years old
_____65 or older

Q.14 [ ] 23

15. I'm going to list some income ranges, please stop me when your household's total income falls between the two numbers. READ LIST

_____less than $10,000
_____between $10,000 and $15,000
_____between $15,000 and $20,000
_____between $20,000 and $30,000
_____more than $30,000
_____(refused) (Do not read.)

Q.15 [ ] 24

RESPONDENT IS: MALE ☐
FEMALE ☐

[ ] 25

READ

Thank you for your time and cooperation. Your help is appreciated and will enable us to better serve you and the community. Thank you again. Good-by.

APPENDIX H
VANPOOL EVALUATION SURVEY FORM

VANPOOL DRIVERS

DIRECTIONS

Please check the appropriate response or fill in the numbers for each of the following questions. If you are unsure of an answer, please give a reasonable estimate. Some of the questions may not be applicable to you; if so, please mark them with NA. We would appreciate a response on every question.

1. How many people are registered for this vanpool?

   _____people

2. What size van do you drive?

   _____10 passenger van
   _____12 passenger van
   _____15 passenger van

3. How many days per week does your vanpool operate?

   _____days per week

4. How many members currently use the vanpool at least 3 days a week?

   _____members

5. How many passengers have left the vanpool since you signed the lease?

   _____passengers
   _____none

6. How many passengers have joined the vanpool since you signed the lease?

   _____passengers
   _____none

7. If you need new or additional passengers, how would you look for them? (Check the most important.)

   _____personal contacts with fellow workers, friends, or neighbors
   _____use of a computer matchlist
   _____ridesharing coordinator at work
   _____company bulletin board, ridesharing board or newsletter
   _____contact the Easyride office
   _____other (specify)_____

   _____

8. How did the people in your vanpool originally get together to form the vanpool? (Check all that apply.)

   _____personal contacts with fellow workers, friends or neighbors
   _____contacts through use of a computer matchlist
   _____your former carpool expanded to become a vanpool
   _____ridesharing coordinator at work
   _____company bulletin board, ridesharing board or newsletter
   _____assistance from Easyride office
   _____other (specify) _____

   _____

   If you used a computer matchlist:

   a. How many names were on the matchlist?
      _____names
      _____none
      _____don't remember/don't know

   b. Approximately how many people did you contact?

      _____people
      _____none
      _____don't remember/don't know

   c. Approximately how many people used the matchlist to contact you?

      _____people
      _____none
      _____don't remember/don't know

   d. Of the contacts you made (using the matchlist), how many joined the pool?

      _____people
      _____none
      ____don't remember/don't know

9. From which of the following did you first learn about vanpooling?

_____employer-sponsored program
_____work newsletter
_____co-worker or friend
_____Pentran/Easyride literature
_____TRT literature
_____radio
_____newspaper
_____TV
_____highway billboard advertisement
_____other (specify)_____

_____

10. Please rate the importance of each of the following in influencing you to become a vanpool driver.

Very Important	Important	Unimportant	Not Applicable	
				make some extra money
				free commute trip
				maintain control of commuting schedule
				use of van on weekends and evenings
				use of van during work hours
				dissatisfied with bus service
				parking problem at work
				make car available to household member
				avoid auto purchase
				employer encouragement
				conserve energy
				other (specify)

11. How do you currently determine each vanpool member's fare? (Check all that apply.)

_____divide total lease and operating costs evenly among riders
_____determine each member's fare on basis of distance
_____determine each member's fare on basis of number of trips
_____use recommended fare schedule from Easyride/TRT

12. Do you try to set the fares so that you ride free?

_____yes
_____no

13. Do you require your passengers to commit themselves to using the van:

_____on a monthly basis
_____on a weekly basis
_____other (specify) _____

_____

14. If your passengers are charged a weekly or monthly fee, do you refund any of the fare for trips that are missed?

_____yes
_____no
_____not applicable

15. What were the total costs of leasing and operating the van for:

a. February $_____
b. March $_____

16. What were the total fares collected for:

a. February $_____
b. March $_____

17. Do you pay:

a. Parking fees at work?

___yes How much? $_____per _____
(hour, day, week, month)

___no

b. Tolls on the way to work?

___yes How much? $_____per _____
(trip, day, week, month)

___no

18. How many miles per gallon does the van get?

_____mpg
_____don't know

19. Approximately how many hours per month do you spend performing the extra duties of a vanpool driver such as cleaning the van and maintaining the records? (This does not include driving.)

_____hours per month

20. Do you have any rules about how long you will wait for passengers before you leave without them?

_____yes How long? _____minutes
_____no

21. Do you have any rules about:

(Check all that apply.)

_____passengers notifying the driver if they will be absent
_____smoking in van
_____eating/drinking in van
_____music
_____other (specify) _____

_____

22. What happens if the van won't start or is inoperable in the morning?

_____passengers have standing arrangements to use carpools
_____passengers individually find their own way to work
_____has not happened yet so haven't thought about it
_____other (specify_____

_____

23. Did your vanpool miss any scheduled trips last month?

_____yes How many? _____(one-way trips)
_____no

24. What compensation or benefits does your back-up driver receive for driving the van? (Check all that apply.)

_____none
_____rides free on those days
_____has use of the van on those evenings
_____is paid
_____other (specify) _____

_____

25. Where do you have your van maintained?

_____TRT facility in Portsmouth
_____Pentran/Easyride facility in Hampton

26. Have you been satisfied with the maintenance service?

_____yes
_____no
_____not applicable; I have not had my van worked on yet.

If no, what were the problems?

_____took too long to get done
_____job was not done right
_____had problems scheduling the service
_____other (specify)_____

_____

27. In the past two weeks have you been late to work due to the vanpool?

_____yes
_____no
_____don't know/don't remember

If yes, how many days in the past two weeks were you late to work by:

a. Less than ten minutes: _____days
b. More than ten minutes: _____days

28. In the past two weeks, were any of your passengers late to meet you on your way to work?

_____yes
_____no

If yes, how many times during the past two weeks did you have to wait for:

a. Less than ten minutes _____times
b. More than ten minutes _____times

29. What is your overall impression of how well the vanpool stays on schedule?

_____good
_____fair
_____poor

30. What do you like most about vanpool driving? (Check one.)

_____free commute trip
_____the extra money
_____use of the van on weekends and evenings
_____control over the trip schedule
_____the driving
_____the companionship
_____other (specify) _____

_____

31. What do you like least about vanpool driving (Check one.)

_____collecting passenger fares
_____cleaning the van
_____keeping the books
_____waiting for passengers who are late
_____the driving
_____dealing with problems between passengers
_____nothing is wrong; everything is fine
_____other (specify) _____

_____

32. How did you make this trip before you started vanpooling?

_____drove alone
_____carpooled with _____others
_____was in a different vanpool with _____others
_____Pentran bus
_____bus operated by a private company
_____I did not make this trip before I started vanpooling
_____other (specify) _____

33. Has vanpooling affected the number of vehicles your household owns? (Check only one.)

_____no effect
_____delayed replacing a vehicle that I still have
_____avoided buying an additional vehicle
_____sold or junked a vehicle and did not replace it
_____will probably sell or junk a venicle

34. Now that you vanpool do you leave a vehicle at home that you previously used to get to work?

_____yes
_____no

If yes:

a. Is that vehicle driven:

_____more
_____about the same
_____or less

than when you drove it to work?

b. How many miles per gallon does that vehicle get?

_____mpg
_____don't know

35. If you were to drive alone to work:

a. How many miles would you drive to work?

_____miles

b. How long would it take you?

_____minutes

c. Would you pay:

1. Parking fees?

___yes How much? $_____per _____ (hour, day, week, month)
___no
___don't know

2. Tolls?

___yes How much? $_____per _____ (trip, day, week, month)
___no
___don't know

d. Could you use a vehicle every day without inconvenience to other household members?

_____yes
_____no
_____don't know

36. Where do you work?

_____

37. What are your work hours?

am am
_____: _____pm to _____: _____pm

38. How much daily flexibility are you allowed in the time you begin and end work each day:

_____none
_____up to 15 minutes
_____15 to 29 minutes
_____30 to 59 minutes
_____1 to 2 hours
_____more than 2 hours or complete flexibility

39. Has your employer ever offered any of the following benefits to vanpool members? (Check all that apply.)

a. _____reserved parking for vanpools
b. _____vanpool parking which is closer to the buildings
c. _____free parking for vanpools in lots where others must pay
d. _____subsidized parking for vanpools in lots where other must pay
e. _____work schedule flexibility
f. _____cash prize contests for carpools and vanpools
g. _____other (specify) _____

_____

If yes, were any of the benefits a factor in your decision to start vanpooling?

_____yes Indicate which letters from above _____
_____no

To help us better understand the results of this survey, we would like to ask a few questions about yourself and your household. Your answers will be kept strictly confidential and will be used for planning purposes only. Your cooperation is voluntary.

40. How many vehicles in running condition are owned by your household?

_____vehicles

41. Including yourself, how many persons in your household are in each of the following categories?

_____less than 6 years old
_____between 6 and 18 years old
_____over 18 and employed part-time
_____over 18 and employed full-time
_____over 18 and not employed or retired
_____total in household

42. Including yourself, how many licensed drivers are in your household?

_____licensed drivers

43. Are you:

_____male
_____female

44. Are you between:

_____16 and 20 years old
_____21 and 30 years old
_____31 and 40 years old
_____41 and 50 years old
_____51 and 64 years old
_____65 and older

45. What is your occupation?

_____sales
_____executive
_____professional
_____shop-factory worker
_____clerical-office
_____craftsman-foreman
_____service worker
_____manager
_____other _____

46. Please indicate the range in which total household income falls?

_____less than $10,000
_____between $10,000 and $15,000
_____between $15,000 and $20,000
_____between $20,000 and $30,000
_____more than $30,000

VANPOOL TRAVEL LOG DIRECTIONS

Please take this travel log with you and complete it as you drive to and from work on two consecutive days (either Tuesday and Wednesday or (Wednesday and Thursday). Do not fill in the log for Monday or Friday trips. Please write the day and date for which you are filling out the log in the spaces provided.

For every stop from the time you leave your home to when you park your van, including stops to drop off passengers who work in different buildings or worksites, please fill in:

- the number of passengers who are picked up or dropped off at each stop;
- whether or not the passenger was picked up at home;
- the time of the stop; and
- the odometer reading at the stop.

Please record this information for both your trip to work and your return home trip on each day.

Please note that on the Day One "To Work" Trip, we would also like you to record the passenger survey numbers (1 thru 15) as passengers are picked-up and dropped-off.

VANPOOL TRIP LOG DAY 1

DAY: _____ DATE: _____

"TO HOME" TRIP

	STOP	NUMBER OF PASSENGERS PICKED UP OR DROPPED OFF	SURVEY NUMBER OF PASSENGERS WHO ARE PICKED UP OR DROPPED OFF	CHECK IF PICKED UP AT HOME	TIME	ODOMETER READING
"To Work" Pickups	Start Driver					
	.					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
"To Work" Dropoffs	.					
	2					
	3					
	4					
	5					
	6					
	Parked Van					

Please answer the following:

1. How many members of the vanpool who usually ride on this day of the week are missing?

   _____members

2. Were there any unusual occurrences (such as severe weather conditions or an accident) which may have affected this trip's time or mileage?

   _____yes
   _____no

   If yes, what were the occurrences?

   _____severe weather conditions
   _____unusually heavy traffic
   _____an accident which caused traffic tie-ups
   _____van had a flat tire or engine trouble
   _____other (specify) _____

   _____

"TO WORK" TRIP

	STOP	NUMBER OF PASSENGERS PICKED UP OR DROPPED OFF	CHECK IF DROPPED OFF AT HOME	TIME	ODOMETER READING
"To Home" Pickups	Start/ Driver				
	1				
	2				
	3				
	4				
	5				
	6				
"To Home" Dropoffs	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	Driver's Home				

Please answer the following:

1. How many members of the vanpool who usually ride on this day of the week are missing?

   _____members

2. Were there any unusual occurrences (such as severe weather conditions or an accident) which may have affected this trip's time or mileage?

   _____yes
   _____no

   If yes, what were the occurrences?

   _____severe weather conditions
   _____unusually heavy traffic
   _____an accident which caused traffic tie-ups
   _____van had a flat tire or engine trouble
   _____other (specify) _____

   _____

VANPOOL TRIP LOG DAY 2 DAY: _____ DATE: _____

"TO WORK" TRIP

	STOP	NUMBER OF PASSENGERS PICKED UP OR DROPPED OFF	CHECK IF PICKED UP AT HOME	TIME	ODOMETER READING
"To Work" Pickups	Start: Driver				
	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
"To Work" Dropoffs	1				
	2				
	3				
	4				
	5				
	6				
	Parked Van				

Please answer the following:

1. How many members of the vanpool who usually ride on this day of the week are missing?

   _____members

2. Were there any unusual occurrences (such as severe weather conditions or an accident) which may have affected this trip's time or mileage?

   _____yes
   _____no

   If yes, what were the occurrences?

   _____severe weather conditions
   _____unusually heavy traffic
   _____an accident which caused traffic tie-ups
   _____van had a flat tire or engine trouble
   _____other (specify) _____

   _____

"TO HOME" TRIP

	STOP	NUMBER OF PASSENGERS PICKED UP OR DROPPED OFF	CHECK IF DROPPED OFF AT HOME	TIME	ODOMETER READING
"To Home" Pickups	Start/ Driver				
	1				
	2				
	3				
	4				
	5				
	6				
"To Home" Dropoffs	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	Driver's Home				

Please answer the following:

1. How many members of the vanpool who usually ride on this day of the week are missing?

   _____members

2. Were there any unusual occurrences (such as severe weather conditions or an accident) which may have affected this trip's time or mileage?

   _____yes
   _____no

   If yes, what were the occurrences?

   _____severe weather conditions
   _____unusually heavy traffic
   _____an accident which caused traffic tie-ups
   _____van had a flat tire or engine trouble
   _____other (specify) _____

   _____

000012

PASSENGER SURVEY

000013

Dear Vanpool Member:

This questionnaire is being distributed by Pentran/Easyride and TRT to learn more about the people in the vanpool program and ways to improve the vanpool program. Your responses will be kept strictly confidential and will only be used for planning purposes. Your driver will be collecting the surveys until May 15, 1981. Please complete your survey before this date. Your assistance is greatly appreciated.

DIRECTIONS

Please check the appropriate response or fill in the numbers for each of the following questions. If you are unsure of an answer, please give a reasonable estimate. Some of the questions may not be applicable to you; if so, please mark them with NA. We would appreciate a response on every question.

1. a. How many days per week do you usually ride with the vanpool?

_____days per week

b. On the days you don't ride with the vanpool, how do you usually get to work?

_____drive alone
_____carpool
_____bus
_____other

2. How long does it take you to get to work when you vanpool?

_____minutes

3. How do you meet your vanpool in the morning?

_____picked up at home by the van
_____drive by myself to a meeting place
_____drive with others to a meeting place
_____walk to a meeting place

4. From which of the following did you first learn about vanpooling?

_____employer-sponsored program
_____work newsletter
_____co-worker or friend
_____Pentran/Easyride literature
_____TRT literature
_____radio
_____newspaper
_____TV
_____highway billboard advertisement
_____other (specify) _____

_____

5. When did you join this vanpool?

_____month _____year

6. How did you originally come to join your vanpool? (Check all that apply.)

_____personal contacts with fellow workers, friends or neighbors
_____contacts through use of a computer matchlist
_____your former carpool expanded to become a vanpool
_____ridesharing coordinator at work
_____company bulletin board, ridesharing board or newsletter
_____assistance from Easyride office
_____other (specify) _____

_____

If you used a computer matchlist:

a. Approximately how many names were on the matchlist?

_____names
_____none
_____don't remember/don't know

b. Approximately how many people did you contact?

_____people
_____none
_____don't remember/don't know

c. Approximately how many people used the matchlist to contact you?

_____people
_____none
_____don't remember/don't know

d. Of the contacts you made (using the matchlist), how many joined the vanpool?

_____people
_____none
_____don't remember/don't know

7. Please rate the importance of each of the following in influencing you to join a vanpool.

Very Important	Important	Unimportant	Not Applicable	
				reduce commuting expenses
				parking problems at work
				make car available to household member
				avoid auto purchase
				do not own vehicle
				relief from driving stress
				don't drive
				did not like the bus
				for the companionship
				employer encouragement
				conserve energy
				other (specify

8. What is your vanpool fare?

$_____per _____(month, week, day, trip)

9. In the past two weeks were you ever late to work because of the vanpool?

_____yes
_____no
_____don't remember/don't know

If yes, how many days in the past two weeks were you late to work by:

a. less than ten minutes: _____ days
b. more than ten minutes: _____ days

10. In the past two weeks was your vanpool ever late to pick you up?

_____yes
_____no
_____don't remember/don't know

If yes, how many days in the past two weeks was the van late by:

a. less than ten minutes: _____ days
b. more than ten minutes: _____ days

11. In the past month did the vanpool miss any scheduled trips?

_____yes
_____no
_____don't remember/don't know

If yes, how many scheduled one-way trips were missed (in the past month)?

_____one-way trips

12. What is your overall impression of how well the vanpool stays on schedule?

_____good
_____fair
_____poor

13. What do you like most about vanpooling? (Check one.)

_____reduce commuting expenses
_____is convenient
_____companionshiop
_____relief from driving stress
_____makes car available to another household member
_____other (specify) _____

_____

14. What do you like least about vanpooling? (Check one.)

_____the extra travel time
_____doesn't allow for schedule flexibility
_____too much commitment
_____is usually late
_____bad habits of other riders
_____none of the above; everything is fine
_____other (specify) _____

_____

15. How did you make this trip before you started vanpooling?

_____drove alone
_____carpooled with _____others
_____was in a different vanpool with _____others
_____Pentran bus
_____bus operated by a private company
_____I did not make this trip before I started vanpooling
_____other (specify) _____

_____

16. Now that you are vanpooling do you leave a car at home which you previously used to get to work?

_____yes
_____no

If yes:

a. Is the vehicle driven:

_____more
_____about the same
_____less

than when you drove it to work?

b. How many miles per gallon does the vehicle get?

_____mpg
_____don't know

17. Has vanpooling affected the number of vehicles your household owns? (Check only one.)

_____no effect
_____delayed replacing a vehicle I still have
_____avoided buying an additional vehicle
_____sold or junked a vehicle and did not replace it
_____will probably sell or junk a vehicle

18. If you were to drive alone to work:

a. How many miles would you drive to work?

_____miles

b. How long would it take you?

_____minutes

c. Would you pay:

1. Parking fees?

___yes How much? $_____per_____ (hour, day, week, month)

___no
___don't know

2. Tolls?

___yes How much? $_____per _____ (trip, day, week, month)

___no
___don't know

d. Could you use a vehicle every day without inconvenience to other household members?

_____yes
_____no
_____don't know

19. Where do you work?

_____

20. What are your work hours?

am		am	
_____:	_____pm	_____:	_____pm

21. How much daily flexibility are you allowed in the time you begin and end work each day:

_____none
_____up to 15 minutes
_____15 to 29 minutes
_____30 to 59 minutes
_____1 to 2 hours
_____more than 2 hours or complete flexibility

22. Does your job require the use of your car:

_____once a month or less
_____2-3 times per month
_____once a week
_____2-3 times per week
_____4 or more times per week

23. Does your job involve overtime work:

_____once a month or less
_____2-3 times per month
_____once a week
_____2-3 times per week
_____4 or more times per week

24. Do you work on a rotating shift?

_____yes
_____no

To help us better understand the results of this survey, we would like to ask a few questions about yourself and your household. Your answers will be kept strictly confidential and will be used for planning purposes only. Your cooperation is voluntary.

25. How many vehicles in running condition does your household own?

_____vehicles

26. Do you have a driver's license?

_____yes
_____no

27. Including yourself how many persons in your household are in each of the following categories?

_____less than 6 years old
_____between 6 and 18 years old
_____over 18 and employed part-time
_____over 18 and employed full-time
_____over 18 and not employed or retired
_____licensed drivers
_____total in household

28. Are you:

_____male
_____female

29. Are you between:

_____16 and 20 years old
_____21 and 30 years old
_____31 and 40 years old
_____41 and 50 years old
_____51 and 64 years old
_____65 and older

30. What is your occupation?

_____sales
_____executive
_____professional
_____shop-factory worker
_____clerical-office
_____craftsman-foreman
_____service worker
_____manager
_____other _____

31. Please indicate the range in which your <u>total</u> household income falls.

_____less than $10,000
_____between $10,000 and $15,000
_____between $15,000 and $20,000
_____between $20,000 and $30,000
_____more than $30,000

APPENDIX I

SAMPLE HANDI-RIDE APPLICATION AND WAIVER OF LIABILITY

HANDI-RIDE at 722-2837

Please return application to:

HANDI-RIDE
Attention: Victoria W. Fox
3400 Victoria Boulevard
Hampton, VA 23661

HANDI-RIDE APPLICATION FORM

Information:

Name_____ Social Security No._____

Address_____ _____
(street) (city, state & zip)

Telephone Number_____ Date of Birth_____

Disability_____

Short Term_____ Long Term_____

Wheelchair_____ (If "yes", will it fit in trunk of a car?_____)

Cane or Crutches_____ Neither_____

Can board the taxi unassisted_____

Expect to have attendant along_____ Attendant's name_____

Address_____

Present Means of Transportation:

Dependent on relatives_____ Dependent on friends_____

Bus sometimes_____ Drive car sometimes_____

Taxis_____ Vans for handicapped_____

Social Service_____ Other_____

Person to be contacted and telephone number in case of emergency:

Name_____ Telephone No._____

Need Transportation For:

Employment:

Address _____

Hours (to and from) _____

Days of the Week _____

Approximate miles to work _____

Education:

Address _____

Hours (to and from) _____

Days of Week _____

Approximate miles to facility _____

Medical:

Address _____

Hours (to and from) _____

Days of Week _____

Approximate miles to facility _____

Social/Recreation:

Address _____

Hours (to and from) _____

Days of Week _____

Approximate miles to destination _____

Other: _____

_____

PENTRAN FORM 710

VERIFICATION OF ELIGIBILITY

_____ (A) Has been examined
(B) Has appropriate records
(circle one)

Name of applicant for I.D. Card

1) Nature of disability: _____

2) Is the applicant physically or mentally able to utilize the public mass transportation services (FEN RAN buses)? _____

Can the applicant:

3) walk 1/4 mile? Yes_____ No_____

4) walk to the nearest bus stop? Yes_____ No_____

5) stand for a period of time (10 minutes)? Yes_____ No_____

6) negotiate steps? Yes_____ No_____

7) negotiate transferring on the fixed-route bus system? Yes_____ No_____

8) comprehend bus schedules or money exchange? Yes_____ No_____

9) Other difficulties which affect mobility: _____

_____

I FULLY AGREE WITH THE ABOVE INFORMATION AS ATTESTED BY MY SIGNATURE.

Verified by: _____ Date: _____

Name of designated official M.D. or psychologist

_____

Agency or Medical Facility

I desire to participate in P.T.D.C.'s handicapped transportation service, known as HANDI-RIDE. In consideration of my participation in and receiving the benefits of HANDI-RIDE, I, being of lawful age, hereby fully and forever release and discharge the P.T.D.C., its servants or employees from any and all claims, actions, causes of action, liability and demands in any way arising from any and all injuries, loss and damages to person and property sustained or received by me in consequence of my participating in or receiving the benefits of HANDI-RIDE.

_____ Date_____
Signature

_____
Name (printed or typed)

APPENDIX J

SAMPLE PAGES FROM HANDI-RIDE BROCHURE

Handy Information about

A
RIDESHARING EFFORT
OF THE PENINSULA
TRANSPORTATION DISTRICT
COMMISSION

What is Handi-ride?

Handi-ride is a demonstration program supported by the Peninsula Transportation District Commission to provide special transportation services for the physically and mentally handicapped persons who are unable, without special planning, to use the Pentran bus system.

How does the service work?

The service is provided door-to-door using vehicles from Langley Cabs and the EASY-RIDE Project. The service operates only within and between the cities of Hampton and Newport News.

What are the different types of service?

HANDI-RIDE operates on a "reservation basis" to accommodate trips made on relatively short notice such as medical appointments or rehabilitative treatments. Infrequent recreation, shopping or social trips are also provided on a limited basis. All reservations must be made at least 24 hours in advance, and should be called in to the Peninsula Transportation District Commission at 722-2837.

HANDI-RIDE also operates on a "subscription basis" in which the service is provided according to a fixed regular schedule such as routine work, education or medical trips, etc. Any deviation from the normal pattern, such as a temporary cancellation of a subscription trip, should be called in to the Peninsula Transportation District Commission immediately at 722-2837.

When does the service operate?

The hours of operation for the HANDI-RIDE service are from 6:00 A.M. to 6:00 P.M. weekdays and Saturdays. No service will be provided on Sundays or designated holidays. The hours for receiving reservations are from 8:00 A.M. to 5:00 P.M. weekdays. Call 722-2837.

How much does Handi-ride cost?

The fare structure for the HANDI-RIDE service is as follows:

(1) $ .50 (one 50¢ ticket) for a one way trip when two or more passengers can be pooled together.

(2) $1.00 (two 50¢ tickets) for each one way trip when the passenger is riding alone and cannot be pooled.

Tickets for the 50¢ amount can be purchased from Riverside Hospital, Hampton Social Services, Newport News Office of Human Affairs and the Peninsula Transportation District Commission. NO SERVICE WILL BE PROVIDED TO INDIVIDUALS

WITHOUT THE PROPER HANDI-RIDE TICKETS. At the end of the trip, the passenger must sign the ticket and give it to the driver. Individuals who are accompanying HANDI-RIDE passengers as attendants must also secure a HANDI-RIDE I.D. Card and the cost to the attendant will be 50¢ (one ticket) per trip.

How do I apply for the service?

All potential riders of the HANDI-RIDE program must fill out an application and have it signed by the applicant's physician before he or she can use the service. Applications can be obtained at 3400 Victoria Boulevard, Hampton, VA. 23661 or by calling 722-2837.

The eligibility of each applicant will be determined by the EASY-RIDE/ HANDI-RIDE staff based upon the submitted verification. A list of qualified individuals will be delivered to the contracted agency or business. The eligible applicants will be issued HANDI-RIDE identification cards to be used on each trip. Escort I.D. Cards are also available for those individuals who assist a rider during their trip.

SPECIAL SERVICES AND RESTRICTIONS

1. Your comfort and safety are our first concern. The drivers will assist you to get to the vehicle and will place your wheelchair or walker in the trunk of the car when necessary.
2. Please be ready to leave at the scheduled time and have your ticket and I.D. Card ready.
3. If you have to cancel a trip, please call the Peninsula Agency on Aging immediately.
4. A ticket is good for only ONE trip and several stops along the way to your destination are not permitted.
5. We cannot take you down a flight of stairs, but we can assist you down a ramp or walkway to the vehicle.
6. The drivers cannot handle bags or other baggage for the rider.

FOR INFORMATION CALL:

838-ride

TO SCHEDULE YOUR TRIP CALL:

722-2837

3400 Victoria Boulevard
Hampton, Virginia 23661

APPENDIX K

CONTRACT OF AGREEMENT BETWEEN THE PENINSULA TRANSPORTATION DISTRICT COMMISSION AND LANGLEY CABS, INC.

CONTRACT OF AGREEMENT
BETWEEN THE
PENINSULA TRANSPORTATION DISTRICT COMMISSION
AND
LANGLEY CABS, INC.
FOR A
HANDI-RIDE
DEMONSTRATION PROJECT

THIS AGREEMENT is made this 1st day of August, 1980, between the Peninsula Transportation District Commission (PTDC), a public corporation under the laws of the State of Virginia (hereinafter called the Party of the First Part) and Langley Cabs, Inc., a Hampton based company (hereinafter called the Party of the Second Part).

WHEREAS, PTDC wishes to comply with the basic minimum requirements under Section 5 and 16 of the Urban Mass Transportation Act and to implement regulations of the Urban Mass Transportation Administration, as set forth in the Federal Register, dated May 31, 1979; and,

WHEREAS, PTDC desires to provide transportation service at a reduced cost to those handicapped persons who cannot readily use the conventional mass transportation system owned and operated by PTDC.

WHEREAS, PTDC represents that is has the legal power and authority to enter into contracts for the services designated herein; and,

WHEREAS, PTDC has authorized the Executive Director to enter into contractual negotiations for the provision of service to the handicapped citizens of the Peninsula.

WHEREAS, PTDC desires to engage the Party of the Second Part to provide the particular services herein described;

NOW, THEREFORE, in consideration of the foregoing, the following terms and conditions, and the mutual covenants herein contained, the parties hereto agree as follows:

1. SCOPE OF WORK
   The Party of the Second Part agrees to perform the services specified in the Work Plan, Appendix A, of this contract which is attached and expressly made a part of this contract, and in accordance with the instructions of PTDC's Executive Director. The Party of the Second Part agrees to deliver the services as specified in the Scope of Work contingent upon the availability of an acceptable level of petroleum.
2. HOLIDAYS
   This contract excludes service on the following PTDC observed holidays: July 4th, Labor Day, Thanksgiving, Friday after Thanksgiving, Christmas, New Year's Day, and Memorial Day.
3. TERM
   The term of this contract shall commence on August 1, 1980 and be renewable with mutually agreed on changes every January 1 and July 1 hereinafter.

4. COST OF SERVICES

The Party of the First Part shall provide funds to the Party of the Second Part for reimbursement of actual expenditures during the term of this contract. All reimbursements to the Party of the Second Part are contingent upon the adherence of the taxi company to the accounting and monitoring policies set forth by PTDC. The taxi rate that the Party of the Second Part will charge will be in conformance with the rates authorized by the Hampton City Code.

5. METHOD OF PAYMENT

Subject to receipt of Federal funds, the Party of the First Part agrees to pay the Party of the Second Part for the incurred actual expenditures. Post expenditure reimbursements will be made for operating costs provided that such expenditures are supported by vouchers submitted in accordance with the instructions and in the form prescribed by the PTDC Executive Director. Each reimbursement period shall cover one calendar month.

6. DISCOUNTS

The Party of the Second Part agrees to permit the Party of the First Part to deduct a discount from the total reimbursement amount as follows, determined by the number of mutually agreed upon trips and providing reimbursement is made within 15 days of receipt of supporting vouchers.

200 mutually agreed upon trips	3% discount
350 mutually agreed upon trips	5% discount
450 mutually agreed upon trips	7% discount

7. FINANCIAL RECORDS AND AUDITS

Financial records shall be kept in accordance with reasonable accounting practices set forth by the Party of the First Part to safeguard funds provided and to provide required financial reporting to the Party of the First Part. All accounting records, supporting documents, and all other records pertinent to this contract are to be kept readily available for examination by the Party of the First Part. The Party of the Second Part shall provide the Party of the First Part with monthly financial statements pertaining to the contract and will provide the Party of the First Part with a final financial audit prepared by an accredited accountant at the termination of this agreement.

8. REPORTS, MONITORING AND EVALUATION

The Party of the First Part shall monitor, evaluate and provide guidance to the Party of the Second Part in conduct of activities covered by this contract. The Party of the Second Part agrees to submit to the Party of the First Part such monitoring and evaluation reports as set forth by PTDC as may be required by

directives of the Urban Mass Transportation Administration.

9. MODIFICATIONS

Any alterations or waivers of the provisions of this contract, in the Work Plan, shall only be valid when they have been reduced to writing duly signed by all parties hereto and attached to the original of this contract. No other understandings, oral or otherwise, regarding the subject matter of this contract shall be deemed to exist or to bind any of the parties hereto. All provisions of this contract are made on the basis of anticipated Federal funding and in the event the amount of such Federal funding is changed, PTDC may modify its obligations under the contract.

10. PERSONNEL

The Party of the Second Part represents that it has, or will secure, at its expense, all personnel required to perform the services under this contract. Consideration should be given to persons 60 years of age and over, or handicapped, for full-time or part-time positions for which such persons qualify.

11. ASSIGNMENT AND SUBCONTRACTS

The Party of the Second Part shall not assign any interest in this contract or its rights and responsibilities hereinunder. The work and services covered by this contract shall not be subcontracted or assigned without prior written approval by PTDC.

12. COMPLIANCE WITH LOCAL LAWS AND LICENSURE REQUIREMENTS

The Party of the Second Part shall comply with all applicable laws, ordinances and codes of the state and local government, including licensing requirements, if required, for provision of any activities under this contract.

13. WAIVER

The failure of PTDC to enforce at any time any of the provisions of this contract, or to exercise any option which is herein provided, or to require at any time performance by the Party of the Second Part of any of the provisions hereof, shall in no way affect the validity of this contract or any part thereof, or the right of PTDC to thereafter enforce each and every provision. All remedies afforded in this contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided or by law.

14. INDEMNIFICATION

The Party of the Second Part agrees that it will protect, indemnify and hold harmless PTDC, its agents and employees against any and all liability loss, damages, costs, expenses, or claims which may be asserted against PTDC or which PTDC may sustain, incur, or be required to pay:
(1) by reason of any participant or employee, agent, or representative of the Party of the Second Part suffering

bodily injury, death, or property loss or damage, either while participating in or receiving from the Party of the Second Part under this contract, or while on premises owned, leased, chartered, or otherwise contracted by the Party of the Second Part under this contract, or while on premises owned, leased, chartered, or otherwise contracted by the Party of the Second Part or any officer, agent or employee thereof, or (2) by reason of any participant or employee, agent, or representative of the Party of the Second Part causing injury to or damage to the property of another person during any time when the Party of the Second Part or any officer, agent or employee thereof has undertaken or is furnishing the care and services called for under this contract, prov vided, however, that the provisions of this paragraph shall not apply to liabilities, losses, charges, costs or expenses caused by or resulting from the acts of omissions of PTDC or any of its officers, employees, agents, or representatives; (3) by reason of the dismissal, termination, displacement, placing in a worse position, rearrangement, relocation, or the loss of benefits or employee protective arrangements (whether granted by Federal, state or local law, or by contract) of any employee, agent or representative or the Party of the Second Part.

15. CIVIL RIGHTS

The Party of the Second Part agrees to complete an Assurance of Compliance with Title VI of the Civil Rights Act of 1964 (HEW Form 441, attached), which shall be made a part hereof.

16. PUBLIC INFORMATION

The Virginia Freedom of Information Act, Chapter 21 of Title 2.1, of the Code of Virginia, shall apply to the services and activities provided pursuant to this contract.

17. CONFIDENTIALITY

The use or disclosure by the Party of the Second Part of any information concerning a participant of services for any purpose not directly connected with the Party of the Second Part's responsibilities as specified in this contract is prohibited except on written consent of the participant or his authorized representative.

18. TERMINATION

PTDC may, by giving reasonable written notice, terminate this contract in whole or in part for cause, which shall include but not be limited to: (1) failure, for any reason, to fulfill in a timely and proper manner, the Party of the Second Part's obligations under this contract; (2) submission by the Party of the Second Part to PTDC reports that are incorrect or incomplete in any material respect; (3) ineffective or improper use of funds provided under this contract; or (4) suspension, reduction, or termination of the grant to PTDC of funds supporting this contract or of the funds provided by the Urban Mass Transportation Administration to PTDC to support the contract. If the Party of the Second Part is unable to comply with such additional conditions as may be lawfully applied to this agreement as a consequence of changes in

regulations, policies, or procedures of the Urban Mass Transportation Administration, or PTDC, the Party of the Second Part shall terminate the contract by giving reasonable written notice, not less than thirty (30) days, to PTDC signifying the effective date thereof and the reasons therefore. In such event, PTDC may require the Party of the Second Part to ensure that adequate arrangements have been made for the transfer of contractual activities to another agency subject to the approval of PTDC. In the event of termination, all unused or unobligated funds in the possession of the Party of the Second Part shall be returned to PTDC; and all property and finished or unfinished documents, data, studies and reports purchased or prepared by the Party of the Second Part under this contract shall become the property of PTDC, provided that any termination of this contract shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination. In the event of termination of this contract by PTDC due to breach of any of its provisions by the Party of the Second Part, PTDC may withhold reimbursement to the Party of the Second Part for purposes of set-off until such time as the exact amount of damages due PTDC or the Urban Mass Transportation Administration is agreed upon or otherwise determined.

19. RECOUPMENT UPON FEDERAL DISALLOWANCE OF FUNDING

Any disallownace of funding by a Federal or state agency as the result of an audit is the responsibility of the Party of the Second Part and any advances may be recouped, or monthly past-expenditure reimbursements as provided decreased, by PTDC in an amount equivalent to the audit disallowance.

20. CONTRIBUTIONS FOR SERVICES

All recipients of services provided under this contract shall be required to purchase HANDI-RIDE tickets for the cost of such services. PTDC will not be held responsible for service rendered without a HANDI-RIDE ticket. Each ticket shall be priced at 50¢ and the cost per trip ranges from 50¢ to $1.00 per one-way trip. The Party of the First Part shall retain these tickets, and revenues as a result of sales, shall go toward offsetting the total PTDC deficit.

IN WITNESS WHEREOF the parties hereto have caused their names to be signed hereto and ~~their~~ seals affixed and attested by their duly authorized officers all as of the date first above written.

WITNESS:

Suzanne E. Carrera

LANGLEY CABS, INC.

Sandra A. White
President

WITNESS:

K. Kay LaVine

PENINSULA TRANSPORTATION DISTRICT COMMISSION

Thomas J. Leach
Executive Director

HANDI-RIDE DEMONSTRATION PROGRAM

Scope of Work

The Peninsula Transportation District Commission, supported by the Peninsula Association of Special Service Agencies, has proposed a demonstration program for the operation of service to the handicapped citizens of the Peninsula. The HANDI-RIDE Program described below will commence on August 1, 1980, and will be renewable every January and July.

Description of Service

The HANDI-RIDE Demonstration Program is a service for the physically and mentally handicapped (ambulatory or semi-ambulatory) persons who are unable, without special facilities or special planning or design to utilize mass transportation facilities and services as effectively as persons who are not as affected. (Federal Register, April 30, 1976, D.O.T. Regulations)

The service will be provided door-to-door by one local cab company, supplemented by PTDC vehicles, and will operate only PTDC's service area of Hampton and Newport News. The Peninsula Transportation District Commission will perform all scheduling and dispatching and will notify the participating cab company of the needed requests.

The company under contract will be reimbursed by PTDC for each ride provided to a qualified applicant. All reimbursements to the taxicab company are contingent upon the adherence to the accounting and monitoring policies set forth by PTDC.

Type of Service

HANDI-RIDE will operate on a "subscription basis" in which the service will be provided according to a fixed regular schedule such as routine work, education, or medical trips, etc.

Subscription service is arranged for trips repeated at least three times a week and is prescheduled when a user joins the program. Any deviations from the normal pattern, such as a temporary cancellation of a subscription trip, should be called into the designated taxicab company which is handling the individual's subscription requests or PTDC. Otherwise, the rider need not contact the operating agency and the service will be provided.

The service will also be provided on a "reservation basis" to accommodate trips made on relatively short notice that are non-recurring such as medical or shopping trips. All reservations must be made at least 24 hours in advance, and should be called into the Peninsula Transportation District Commission for scheduling and dispatching.

Hours of Operation

The hours of operation are from 6:00 a.m. to 6:00 p.m. weekdays and Saturdays dependent upon demand. No service will be provided on Sundays and PTDC observed holidays. The hours of operation for receiving reservations at the Peninsula Transportation District Commission are from 8:00 a.m. to 5:00 p.m. weekdays.

Scheduling and Trip Priorities

The taxicab company will schedule the requests which it will receive from the Peninsula Transportation District Commission. Attempts will be made by the participating taxi company to "pool" or coordinate HANDI-RIDE requests so that duplication of service to a particular area does not occur. After a HANDI-RIDE trip has been completed, the taxi is immediately available for regular taxi service or another HANDI-RIDE request.

Fare Structure

The fare structure for the HANDI-RIDE service is as follows:

1) $.50 (one 50¢ ticket) for a one way trip when two or more passengers can be pooled together.

2) $1.00 (two 50¢ tickets) for each one way trip when the passenger is riding alone and cannot be pooled.

Tickets for the $.50 amount must be used and can be purchased from local hospitals, social service agencies and/or the Peninsula Transportation District Commission. No service will be provided to individuals without the proper PTDC HANDI-RIDE tickets.

Applicant Eligibility

All HANDI-RIDE passengers must apply for the service through the PTDC office. The attached form must be filled out and signed by the designated physician and returned to 3400 Victoria Boulevard, Hampton, Virginia 23661, before the rider can use the service.

The eligibility of each applicant will be determined by PTDC staff based upon the submitted verification. A list of qualified individuals will be delivered to the contracted agency or business. The eligible applicants will be issued HANDI-RIDE identification cards to be used on each trip.

Accounting and Monitoring Procedures

The participating taxicab company must abide by the following accounting and monitoring procedures in order to be reimbursed for the service delivered.

1. Only riders equipped with a HANDI-RIDE I.D. Card and a HANDI-RIDE ticket are eligible for the service.

2. At the end of each ride, the driver will fill out the amount of the trip on the ticket and have the passenger or assistant sign the ticket to verify the amount. The driver will retain the ticket and turn it into the taxi office at the end of the day. It is from this ticket that the taxi company will be reimbursed by PTDC.

3. At the end of each day, the taxicab driver will turn in the HANDI-RIDE tickets to the taxi company's main office.

4. From the driver's manifest, the cab company will record:

   a. Name of cab company
   b. Date
   c. Name of driver
   d. Name of passenger(s)
   e. Address
   f. Destination
   g. Pick-up time
   h. Drop-off time
   i. Cost of trip
   j. Mileage

5. The taxicab company will bill PTDC monthly for the period of the first day of the month to the last day of the month. All billing must be submitted to PTDC for reimbursement by the fifth day of every month.

Standards for Taxicab Operators

The participating taxicab company must abide by the City Code of either Hampton or Newport News and the Code of Virginia. Failure to adhere to the rules and regulations set forth shall cause the termination of the attached contract.

The participating taxicab company must provide the PTDC with a copy of the respective company's Certificate of Public Convenience and Necessity issued by the State.

All fares recorded by the taxicab company must be registered on approved taximeters using rates determined on a "per mile" basis.

Approved taximeters using rates determined on a "per minute" basis may be turned on for special conditions as authorized by the EASYRIDE Director or the Special Services Administrator. Only those fares which have been authorized will be paid for by PTDC.

Every taxicab must be insured with a reputable insurance company for any liability incurred on account of any injury to persons or damage to property resulting from the operation of such taxicabs in the following amounts.

Injury to one person in any one accident	$ 50,000
For injury to two or more persons in any one accident	$100,000
Property damage in any one accident	$ 10,000

Limitations on Service

No one-way trip by one person will exceed $12.00 on the meter. If more than one person rides in the cab, there will be no additional charge. In addition, the limitations on mileage will be $12.00 per passenger riding in the cab.

Assignment of Trips

The trips assigned exclusively to Langley Cabs, Inc., for the delivery of service shall be mutually agreed upon by both Langley Cabs and PTDC.

APPENDIX L

REPORT OF NEW TECHNOLOGY

No new innovations or techniques were used in this evaluation. All methodologies employed are available in the open literature.

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