



U.S. Department
of Transportation

**Federal Highway
Administration**

Introduction to Ridesharing

A Manual for New Ridesharing Coordinators

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

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FOREWORD

This manual is designed to serve as an orientation for new ridesharing coordinators. As such, it will be of interest to personnel working for State and local ridesharing agencies, particularly those who are new and relatively inexperienced.

Ridesharing is essentially two or more persons traveling by any mode of transportation, including but not limited to: carpooling, vanpooling, buspooling, and public transit. Its benefits are many--less traffic congestion, less air pollution, reduced parking demand, energy savings, etc. Ridesharing draws from several widely differing disciplines, including planning, marketing, engineering, computer sciences, research, and even law. Hence, it is important for every ridesharing coordinator to become an informed generalist. This manual delves into these and other disciplines and highlights things new ridesharing coordinators need to know.

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This manual does not constitute a standard, specification, or regulation.

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FHPM 6-8-2-3, Carpool And Vanpool Projects.

FHPM 6-3-4, Mass Transit And Special Use Highway Projects.

Dec. 19, 1986, Memorandum, Traffic Management Activities During Major Highway Reconstruction.

RIDESHARING

- Carpools
- Vanpools
- Buses





INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 0

INTRODUCTION

OBJECTIVE

This module will introduce the user to the content and structure of INTRODUCTION TO RIDESHARING, A MANUAL FOR NEW RIDESHARING COORDINATORS. After reading the material found in this module, you should know how to use the rest of the manual.

This manual is designed to serve as an orientation for new ridesharing coordinators. As such, it can be reviewed in its entirety or selectively. It can also be used as a general desk reference for individuals with ridesharing responsibilities. Its principal focus, however, is on ridesharing coordinators working for State or local ridesharing agencies, particularly those who are new to the role.

CONTENTS OF THE MANUAL

This manual is divided into ten self contained modules:

0. INTRODUCTION
1. RIDESHARING OVERVIEW
2. DATA PROCESSING AND APPLICANT PLACEMENT
3. WORKING WITH EMPLOYERS
4. MARKETING RIDESHARING
5. RIDESHARING DURING MAJOR HIGHWAY RECONSTRUCTION
6. MODEL LAWS AND CODE

7. FUNDING
8. EVALUATION
9. NETWORKING

The following is a brief description of the contents of each module:

MODULE 1: RIDESHARING OVERVIEW

This module briefly discusses goals and benefits of ridesharing, commuter characteristics, motivations of commuters, early problems, current issues, and conditions for success.

MODULE 2: DATA PROCESSING AND APPLICANT PLACEMENT

This module describes the need for data processing in a ridesharing agency and the use of data processing to place applicants in ridesharing arrangements.

MODULE 3: WORKING WITH EMPLOYERS

This module discusses dealings with employers and incentives employers may provide to encourage ridesharing among employees. It also presents two case studies--one describing an employer's ridesharing program, another describing the role of an employer's ridesharing coordinator.

MODULE 4: MARKETING RIDESHARING

This module describes the planning framework used to guide marketing activities, the various elements of marketing, and the development of an actual marketing plan.

MODULE 5: RIDESHARING DURING MAJOR HIGHWAY
RECONSTRUCTION

This module discusses the role transportation systems management (TSM) strategies, particularly ridesharing, can play during major highway reconstruction.

MODULE 6: MODEL LAWS AND CODE

This module describes a model State law to remove legal impediments to ridesharing arrangements, a model State ridesharing incentives law, and a model parking code to encourage ridesharing.

MODULE 7: FUNDING

This module briefly outlines possible sources of funds for ridesharing programs and processes to be followed to obtain these funds.

MODULE 8: EVALUATION

This module discusses the need for good ridesharing evaluations and suggested evaluation techniques, including data collection.

MODULE 9: NETWORKING

This module sets forth recommended procedures for establishing and utilizing networks of ridesharing practitioners.

IF YOU HAVE NOT YET EXAMINED THE TABLE OF CONTENTS FOR THIS MANUAL YOU SHOULD DO SO NOW TO GET A GENERAL IDEA OF WHAT EACH MODULE CONTAINS.

ORGANIZATION OF A MODULE

The typical format for each module will consist of:

- 1.0 OBJECTIVE
- 2.0 KEY REFERENCES
- 3.0 DEFINITIONS
- 4.0 CONTENTS OF EACH MODULE
- 5.0 SUMMARY

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 1

RIDESHARING OVERVIEW



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 1

RIDESHARING OVERVIEW

1.0 OBJECTIVE

Ridesharing draws from several widely differing disciplines, including planning, engineering, marketing, computer sciences, research, and even law. Hence, it is important for every ridesharing coordinator to become an informed generalist. This module sets the stage for the remainder of the manual. It delves into many disciplines highlighting things new ridesharing coordinators need to know, and briefly discusses goals and benefits of ridesharing, commuter characteristics and motivations, early problems, current issues, and conditions for success.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, NCHRP Report 241, Transportation Research Board, Prepared by M.R. Misch, J.B. Margolin, D.A. Curry, L.J. Glazer, and G. Shearin, December 1981.
- o Ridesharing: Meeting the Challenges of the '80s, The Report of the National Task Force on Ridesharing, October 1980.

3.0 DEFINITIONS

You will frequently encounter the following terms relative to ridesharing. Definitions for these terms were established by the Transportation Research Board and/or the National Task Force on Ridesharing.

- o Ridesharing--two or more persons traveling by any mode of transportation, including but not limited to: carpooling, vanpooling, buspooling, and public transit. In its most familiar form ridesharing refers to the commuter work trip, although ridesharing for nonwork trips (such as travel to recreational and shopping areas) is increasingly common.
- o Carpooling--an arrangement for the transportation of at least two persons utilizing a motor vehicle of the private passenger or station wagon type. This normally refers to rides shared by two or more people in private automobiles, on a continuous basis, regardless of their relationship to each other or cost-sharing agreements.
- o Vanpooling--an arrangement for the transportation of at least two persons utilizing motor vehicles other than a private passenger or station wagon type, manufactured and equipped primarily for use in transporting between 8 and 15 passengers, on which operating costs for such vehicles are paid by those people utilizing such arrangements and in some cases by their employers. This normally involves prearranged membership in a group whose members are picked up at specific points (possibly their homes) to be taken to common or nearby employment sites, then returned to the pickup points at the end of each workday. The van in which they ride may be driven (a) by an appointed group member who normally has responsibility for vehicle upkeep and use of the van at all times, or (b) by a vanpool agency driver.
- o Buspooling--an arrangement for the transportation of persons utilizing motor vehicles other than a private passenger or station wagon type, manufactured and equipped primarily for use in transporting more than 15 persons. This refers to express bus service with limited pickup and destination stops, guaranteed seats, and advance ticket purchases.
- o Public Transit--an arrangement for the transportation of persons on public vehicles, normally buses or trains. These vehicles adhere to formal schedules with regular pickup and destination stops, open seating, and on-board ticket sales.
- o Nonprofit--as applied to carpools, vanpools, or buspools, motor vehicle transportation provided for purposes other than pecuniary gain, where such transportation is incidental to another purpose of the driver.

4.0 RIDESHARING OVERVIEW

4.1 What Is Ridesharing?

There are many ways to share the ride to work or to social and recreational activities. Some people do not even know what ridesharing is or that they are already participating in a ridesharing arrangement. Many people have concerns about getting into or remaining in a ridesharing arrangement, while others find it to be a very enjoyable experience.

Simply put, however, ridesharing is just two or more people sharing a ride in a car, van, or bus. In this manual we will concentrate primarily on carpooling and vanpooling, and their relationship with transit.

4.2 Goals And Benefits Of Ridesharing

According to the U.S. Bureau of the Census data for 1980, about 20 percent of the commuters pooled to work (carpool and vanpool), about 6.5 percent used public transportation (bus, subway, railroad, and taxicab), and another 7.3 percent used bicycles, motorcycles, or walked. The remaining 66 percent were solo automobile drivers, whether by preference, necessity, or habit.

Increases in commuter ridesharing can produce such benefits as:

- o Lower commuting costs, reduced automobile dependence, reduced traffic congestion, and reduced auto maintenance "hassles" for commuters themselves.
- o Reduced parking demand and improved resistance to the disruptive effects of fuel shortages for employers.
- o Community and societal savings such as reduced air pollution, less traffic congestion, less demand for new highways, and energy conservation.

The ultimate goal of most local ridesharing programs is to realize these types of benefits, at acceptable costs, by making available a variety of ridesharing services to commuters, principally carpooling, vanpooling, buspooling, and transit information.

Of course, these individual commuter and community benefits of ridesharing don't mean much to most employers who have a business to run and a payroll to meet. But

many employers are finding that a ridesharing program pays for itself, through (a) a reduction in parking needs and worker fatigue, (b) access to a greatly expanded labor pool; and (c) preparation for continued operation during transportation emergencies such as fuel shortages and transit strikes. These benefits can translate into better employee morale and productivity.

4.2.1 Conference Board Study

A 1983 study conducted by The Conference Board, a research organization funded by member employers, found that 68 percent of the 235 companies surveyed across the country operated carpools, 57 percent ran vanpools, 29 percent subsidized employees' mass transit fares, 12 percent provided management aid to local transit agencies, and 9 percent ran charter or subscription buses.

The study further reported that economics was the primary reason for the growth of employers' transportation programs. These programs can cost thousands of dollars a year, but a company's actual expenses are often little or nothing. The study found that 65 percent of the firms recouped 76 to 100 percent of their costs through cash fares, payroll deductions, depreciation of vehicles, and tax credits. More than 35 percent of the surveyed companies recovered all their costs.

4.2.2 Commuter Goals

It must be realized that concepts which motivate ridesharing coordinators and employers to become involved in ridesharing may not motivate individual consumers. Such policy goals as reducing traffic congestion or minimizing air pollution have not, in the past, motivated great numbers of solo drivers to rideshare. Neither has the lower cost of ridesharing. As citizens, people may be interested in such issues. In the day-to-day business of getting to and from work, however, most have far different priorities. These daily priorities are shaped by personal, family, and workplace demands. Furthermore, many feel that nothing an individual can do will help meet such broad goals as reducing traffic congestion or conserving the fossil fuel supply effectively. Finally, the large majority of commuters have not yet had experience with truly debilitating traffic congestion, gas shortages, severe parking restrictions, or fuel costs escalating beyond budgets.

Understanding commuter goals, therefore, requires understanding and working with what is often a split between societal, employer, and individual transportation goals. Even within commuter groups, successful ridesharing programs must offer alternatives to solo driving that suit the goals (needs and priorities) of the people to be served.

4.3 Commuter Characteristics

During the past few years a new body of knowledge has been evolving around the choice of travel mode in terms of human attitudes and behavior. Some of the findings are to be expected.

- o Commuters who rideshare travel long distances and work regular hours.
- o There is a hard core of dedicated solo drivers.
- o People who rideshare to work really like it.

On the other hand, some of the findings are less obvious and more thought provoking:

- o Personalized matching is the key to the stimulation of more ridesharing.
- o White collar women constitute a commute group which is extremely concerned about running errands on the trip home.
- o Non-poolers are concerned about storage room for packages.

While these studies do not presume to offer solutions to better promote ridesharing, they do provide additional information about the potential rideshare market. They also point out the fact that individual attitudes must be considered in taking actions to stimulate more ridesharing. They are another step in helping us answer the question "If ridesharing is such a beneficial mode, why is it so difficult to attract more solo drivers to it?"

4.4 Similarities Among Modes

Let's now look at a few of the similarities among ridesharing modes, primarily carpool and vanpool. This is not to discount buspools as a ridesharing mode, but

there is little documentation of buspool service or user characteristics.

To begin, let's look at the growth of vanpools. In 1982 the National Association of Vanpool Operators (NAVPO), an organization that has now merged into the Association for Commuter Transportation (ACT), determined that even though vanpooling had captured only a very small percentage of the commute trips, the number of vanpools had grown dramatically between 1973 and 1982. It all began with a well documented employer program at the 3M Company in Minneapolis in 1973. This pilot project put 6 vanpools on the road. Since that small beginning, major employer programs, federally funded programs, State energy programs, private sector vendor programs, and individual owner/operator vanpools have blossomed across the country. As of November 1982, NAVPO had identified 18,000 vanpools of all types across the country. A number of experts believe the number may be closer to 20,000.

It is harder to document the growth of carpooling as a commute mode because of its relative size and lack of data. However, according to the 1980 Census, 20 percent of all workers who commuted by vehicle were in carpools or vanpools. That included more than 19 million commuters. Referring to a 1975 sample census, there were 3.5 million more carpoolers/vanpoolers in 1980 than in 1975. Of course, the number of workers commuting also increased, by more than 16 million, during the same 5 years.

Typically, external conditions that encourage one ridesharing mode will encourage another. For example, congestion will encourage pooling and transit ridership, provided the opportunities are there to carpool or take the bus. According to the census data, public transportation showed an increase in ridership of almost 1.3 million between 1975 and 1980. Recent trends, however, seem to indicate carpooling and vanpooling have held their own since 1980, percentagewise, but transit ridership has declined slightly.

Two studies, at Commuter Computer in Los Angeles and at Golden Gate Transit in San Francisco, suggested that both carpoolers and vanpoolers rideshare just 80 percent of the time--that is, they do not pool one out of five days, for personal reasons.

There are also some differences in service characteristics between carpools and vanpools. In vanpools, one person serves as driver. In carpools, the majority of the poolers share the driving function.

Comparing one-way trip distances, vanpools generally fall in the longer 20-40 mile range, while carpools fall in the 15-25 mile range. (Buspools fall into the 20-60 mile range).

4.5 Motivation Of Commuters

Now that we have reviewed some characteristics of vanpoolers and carpoolers, let's look at what motivates commuters.

J.B. Margolin and M.R. Misch performed a behavioral study in 1978 to develop ways to increase the level of ridesharing. They sampled 800 commuters in the Washington, D.C. area, one-half carpoolers, the other half solo drivers. They concluded that by understanding attitudes we can better plan and promote rideshare programs.

4.5.1 Types Of Commuters

Based upon observations of commuters' demographics and attitudes, the Margolin/Misch study created a system whereby commuters are divided into five types:

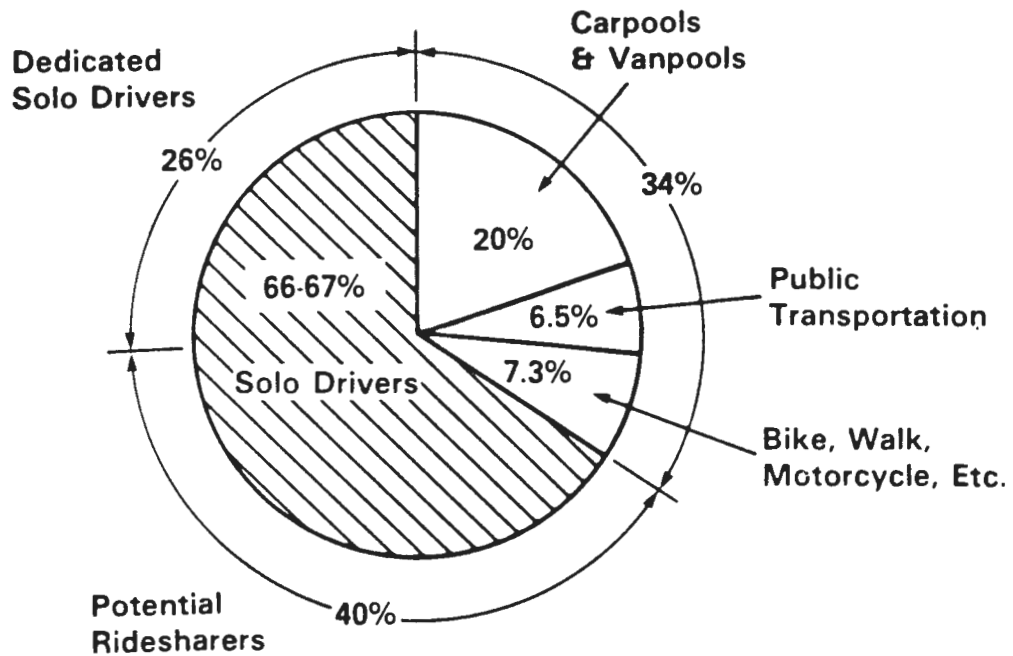
- o The dedicated poolers. The believers who can be used to recruit other poolers.
- o The marginal present poolers. Those commuters who may dropout easily or go in and out. This group poses a challenge to good pool matching and maintenance.
- o The uninformed or passive potential poolers. Those commuters who are interested, but do not know how to become involved or who are too passive to initiate the effort.
- o The marginal anti-poolers. Those who need either to have greater incentives provided or particular disincentives removed.
- o The dedicated solo drivers. Those who for either subjective or objective reasons are unlikely to rideshare at all.

It would be extremely helpful if we knew the percentage of commuters that fell within the above categories. However, the only figures available relate to the dedicated solo drivers. Sixty-seven (67) percent of all commuters drive alone. Of that number 40 percent are

dedicated solo drivers who are unlikely ever to switch. That works out to at least 26% of all commuters. The remaining solo drivers represent approximately 40% of all commuters and are the persons in the 3rd and 4th type groups above. These are the commuters that may switch to ridesharing.

The above statistics on commuting to work are illustrated below.

Commuting to Work



4.5.2 Movement Into And Out Of Modes

As part of an evaluation of the National Ridesharing Discretionary Program, the U.S. Department of Transportation conducted an analysis of commuter ridesharing behavior in five cities--Atlanta, Cincinnati, Houston, Portland, and Seattle. The analysis was based on the results of a workplace survey administered to over

800 employers and more than 11,000 employees. The survey asked respondents to identify their primary current (1982) means of transportation to work, and also the mode they used 2 years prior to the survey (1980).

The results of the survey were as follows:

- o There was no significant change in the mode split for commuters from 1980 to 1982. (Ridesharing went from 21 to 20 percent, drive alone from 64 to 66 percent, public transit (including subscription bus) stayed at 12 percent, and other means dropped from 3 to 2 percent).
- o There was a considerable amount of movement into and out of carpools and other modes. (For example, of those who were driving alone to work in 1980, 85 percent were still driving alone in 1982. By contrast, the percentage of employees carpooling, vanpooling, or riding transit in 1980 who were still using the same modes in 1982 was much lower, 58 percent).
- o Over 70 percent of new carpoolers/vanpoolers formerly drove alone, and nearly 20 percent formerly used transit. Conversely, about 65 percent of those new to the drive-alone mode were carpooling/vanpooling two years before, while 24 percent were using transit.

It can be seen that, because the drive-alone mode is so large, even a small increase in the percentage of newcomers to this mode can represent a substantial drain on ridesharing and transit mode shares. In light of this finding, there is a need to not only increase the number of new ridesharers, but also to focus on retaining current ridesharers.

4.6 Early Problems

There have been at least five types of problems with early ridesharing programs. Some of them are still with us.

- o The first problem was that of planning and starting a new enterprise, with little guidance from previous experience, plus difficulty in finding trained staff, or training new staff.
- o A limited view of its role persists for many ridesharing agencies, who are hampered by extremely tight budgets and pressure by their supervising

agencies to show quick results. Some symptoms are overemphasis on media advertising, concentration on getting people into pools without concern for how long they last, and promotion of carpooling to the exclusion of vanpooling and transit.

- o Public apathy is still a problem, and the common fear of making commuting arrangements with strangers is still a real obstacle, though not without remedy.
- o Employer fears are also a serious problem, especially considering the importance of the employer market.
- o State and Federal financial support is no longer quite so limited in most States, but technical support is still scarce. New or growing ridesharing agencies look mostly to their colleagues for advice, and the possible number of known contacts is limited.

4.7 Current Issues

Of the current issues in ridesharing, there are four basic needs that stand out above the rest. These needs are as follows:

- o The need for sustained growth.
- o The need to understand the conditions that favor ridesharing
- o The need for clarity and understanding of the following elements of a successful ridesharing program:
 - Personalized service in the placement of potential poolers.
 - Effective marketing to employers, employees, and the general public.
- o The need for a better understanding of commuter characteristics and motivations (i.e., what makes a solo driver become a ridesharer, and what doesn't).

4.8 Conditions For Success

There are some conditions that foster ridesharing but are normally beyond the control of most ridesharing

coordinators. Let's look at these conditions briefly.

- o Traffic congestion, limited long-distance transit service, and long commute distances are obvious incentives to ridesharing, especially when time can be saved by pools on HOV lanes or by preferential parking.
- o Parking costs and scarcity of parking have consistently shown up among the prime incentives to carpooling and vanpooling. Surveys have shown that (a) employers cite parking as the main motivation in starting vanpool programs and (b) the majority of solo drivers would switch to carpooling if it were the only way to get guaranteed parking at work. However, at present most employees have free parking at work.
- o Fuel shortages or sudden price increases seem to have much more effect on ridesharing applications than gradual price increases.
- o Large employers or employment centers anchor one end of the commute trip, and hence provide better matching prospects for the workers, plus a concentrated marketing target.
- o Regular working hours enable employees to come and go with their pools. Flexible hours help poolers make pooling arrangements both within and outside their firms.
- o Favorable regulatory and political settings mean tangible and intangible support from State and local public officials. A favorable social setting means similar support from the general public and local press.

The removal of any of these conditions by themselves may not incapacitate a ridesharing program, but the nature of these conditions in a community should influence how a ridesharing program is designed.

5.0 SUMMARY

To sum up this overview:

- o Ridesharing is two or more people traveling together by any mode of transportation, but predominantly by car, van, or bus.

- o According to the 1980 Census:
 - 34 percent of the commuters rideshare, cycle, or walk to work.
 - 66 percent of the commuters are solo drivers.
- o The benefits of ridesharing are enormous: less traffic congestion, less air pollution, and energy conservation, just to name a few.
- o The success of a ridesharing program will depend on community conditions and how well ridesharing coordinators are able to respond to these conditions in the design of their programs.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 2

DATA PROCESSING AND APPLICANT PLACEMENT



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 2

DATA PROCESSING AND APPLICANT PLACEMENT

1.0 OBJECTIVE

Placing applicants in carpools, vanpools, and buspools, and providing transit information are major activities for most ridesharing agencies. Such activities involve much record keeping. This module discusses processes for storing and manipulating applicant data and procedures for matching applicants.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, Sections 4.7 and 6.6, NCHRP Report 241, Transportation Research Board, December 1981.

3.0 DEFINITIONS

Some terms are common to data processing and applicant placement. You should be aware of their definitions.

- o Data Processing--the repetitive manipulation of similar information to produce some standard result.
- o Ridesharing Agency (RSA)--an areawide public or private organization that markets ridesharing and assists the general public, employers, and others with ridesharing arrangements.
- o Applications--written or telephone requests from ridesharing prospects for names and business telephone numbers of prospective other ridesharers who have common origins, destinations, and working hours. Most RSAs have standardized forms available which can be used for these requests.

4.0 DATA PROCESSING AND APPLICANT PLACEMENT

4.1 The Need For Data Processing

What is data processing? As defined above, data processing is the repetitive manipulation of similar information to produce some standard result.

Data processing can be automated or done manually. Hence, it does not necessarily have to be done by computer, but most often is.

For ridesharing, data processing may involve any of a number of things. It may involve carpool matching (the first and probably most important thing for ridesharing people). It may also involve vanpool matching and support, and there is even the possibility of processing public transit information at several levels of quality.

There is a need for a RSA to keep all information in its files up to date and reasonably correct. This is very important.

There is also a need to capture and manipulate statistics for evaluation purposes. In some large agencies, the financial, accounting, and payroll data involve a fair amount of data processing, often enough to require computer support. The list of computer users could be expanded to include ridesharing very easily.

Here is the big question: Is computerized data processing necessary for ridesharing? The answer is both Yes and No.

Yes, because rideshare matching involves taking information on a large number of applicants, processing the information, and turning out lists of people with common origins, destinations, and working hours. This is a very laborious task and the best way to approach it is to have a computer do it.

No, because the ultimate objective is not to produce match lists. It is to help people in single occupant vehicles get into ridesharing. There are some ways of doing this that conceivably involve little or no computerized data processing.

So let's keep our objectives clear. RSAs do not exist merely to produce match lists. They exist to produce ridesharing.

Ridesharing doesn't necessarily require match lists or computerized data processing. It may, and it commonly

does, but let's keep in mind the important point, which is that data processing should support, not create, a RSAs marketing strategy.

Let's look at some case studies of different types of ridesharing operations:

Let's start with manual data processing. A good example of that is the Minneapolis Ridesharing Program, Minnesota Rideshare, which has been in existence since 1976. Up until about 1979, they did not have a computer. They only obtained one after they had been in operation for almost 3 years. At that time they had processed something like ten or fifteen thousand applications with a staff of two persons who were involved not only in matching but in other activities of running the RSA. They were a fairly sizable RSA, and they were doing quite well with a card index file, preparing their carpool match lists and doing their vanpool planning by hand. Totally by hand. They felt this was the best way to start.

Then there is the other extreme: A very large RSA which relies heavily on computerized data processing. This is Commuter Computer in Los Angeles, which is the largest RSA in terms of volume of applications and transactions handled in the United States. To them, computerized data processing is an absolute necessity, both because of the volume of data and because of the wide range of activities they perform. To Commuter Computer, becoming computerized from day one was essential.

Here is another case study: no data processing. There probably isn't such a case, but let's engage in a little thought experiment. Let's begin with a company-based rideshare program, then extrapolate to a small urban area. Let's suppose we have a successful ridesharing coordinator who performs his or her duties in the company manually, on an informal basis, using card files and whatever other paper is needed. Perhaps the ridesharing coordinator is not even doing those things, but instead is using "carpool wanted" notices on bulletin boards as developed by Portland Tri-Met. Or perhaps he or she is decentralized to the point of just giving people who are interested in carpooling the tools to find their own carpools (posters for company bulletin boards, shopping center bulletin boards, etc.) . That is, helping people form and maintain carpools without the data processing part.

At least 20 percent of all commuters are carpooling

already, and most of them got started without the help of a RSA. So the process is going on without the help of data processing. It can definitely be done. Data processing, especially computerized data processing, may be, and commonly is used, but it must be seen as support to the operating plan for any RSA.

4.2 Data Processing Operations

Let's now discuss data processing operations. There are five basic steps that take place in any RSA data processing operation.

- o Applications for matching information are received from some source.
- o The applications are processed in any of a number of ways, manually or by computer.
- o Information is distributed to the people who requested it.
- o Personalization and/or follow-up procedures are initiated (this step is generally not performed, except in a few RSAs).
- o Obsolete data is periodically purged in order to keep the names on file and the information being distributed correct, accurate, and up-to-date.

Let's take a look at these five steps in order.

4.2.1 Receiving Applications

Applications are received from people who are interested in sharing a ride with others who have the same origins, destinations, and working hours. These applications come in on the telephone or by mail. Often, they come in from employers, usually in large batches, as opposed to single requests coming in by mail or phone. No matter how they come in, they should be logged in. This is particularly true for batches from employers in order to keep up with when they were received from a particular company, what day, and how many there were.

There is also a need to scan for errors, to make corrections, note missing addresses, telephone numbers, etc. This is a manual operation. It sometimes involves calling people back to obtain missing or difficult to understand information. Upon completing this task, RSAs will then have, hopefully, a correct application and can

go on to the next step, which is to process the applications.

4.2.2 Processing Applications

Whether applications are processed by computer or by hand, the process is similar.

- o The first step involves geocoding. Geocoding is a process of locating a person's home and work addresses on some sort of coordinate system, such as a map of X's and Y's. (Road maps, which normally use letter and number coordinates to locate cities, are a good example). The geocoding procedure produces an X and Y coordinate for each person's home address and work address.
- o The next step involves some sort of data entry operation. This may require some sort of manual entry on a card. More common, however, is computer "keypunching," "keying," or "key entry", whatever you want to call it.
- o The final step involves processing the data using established manual or computerized procedures to obtain a match list and perhaps other ridesharing information, such as vanpool opportunities, public transit information, etc.

4.2.3 Distributing Information

Processed information (i.e., match lists, personalized transit information, etc.) should be sorted in some manner prior to mailing or delivering. A zip code sort expedites mailing directly to applicants. Sorting by employer identification numbers enables a RSA to easily bundle the information in a box and ship it back to a company so it can be distributed internally. If the company is large enough, a RSA might also sort by some internal code number (like the mail stop or room number). Whether done by hand or by computer, a sorting mechanism should be built into the system.

4.2.4 Personalization And Follow-Up

Once the match lists, transit information, or whatever are distributed, the next step, which is optional but highly recommended, is personalization and follow-up. This can take two forms: face-to-face or by telephone. It involves breaking down the barriers that prevent

people from making use of their match lists. One way of doing this is by arranging meetings between prospective carpool or vanpool partners to break the ice, so to speak, to take away the element of "that's a stranger, just a name on a list." Another way is by telephone, either by conference calls to prospective pool partners or by individual calls to give new ridesharers encouragement.

People are apprehensive about riding with others. They want to meet possible pool members before they make a decision to pool with them. People are also reluctant to call a "stranger" on a match list to set up a meeting. This is where a RSA or employer coordinator can play an important role in helping people on match lists form ridesharing arrangements with persons they feel comfortable being with.

Several approaches can be taken to personalize the placement of persons in ridesharing arrangements. Some ridesharing coordinators routinely telephone people who have recently received match lists to see if they have made any ridesharing arrangements. If an arrangement has been made, the coordinator tracks the new pool or the addition to an existing pool. If not, they offer encouragement and ask the unsuccessful prospects if they would like someone on the list to call them. In some cases, the coordinator discovers that the match list is in error and offers to send a corrected one. At some RSAs, the coordinators have set up conference calls between potential poolers and acted as intermediaries in introducing the potential poolers to each other. This can be a very expensive process if done on a large scale.

A much less costly and more personal approach is the face-to-face group meeting in an informal setting. A RSA or employer coordinator can set these meetings up during coffee breaks or lunch. Possibly 10 to 15 people from one general geographic home location might be invited to each meeting to discuss common commuting needs and to try to work out ridesharing arrangements. This concept can also be used at the home end through neighborhood coordinators.

4.2.5 Purging Obsolete Data

The final step in the data processing operation is to purge obsolete data. This is done in order to make sure the information being distributed to people is correct and does not include names of people who have changed jobs, or who in some cases may even have died.

There are at least seven different techniques for purging data files.

- o The first technique is to do nothing. A RSA relies on applicants calling and saying "I moved," or "I changed hours" or "I changed jobs." It is not a very good technique, but it is a simple and a cheap one.
- o The next technique is to let people age until they have not been heard from in, say, a year. Then they are just automatically deleted. A RSA could perhaps send letters, telling them they are being deleted because they haven't been heard from, but that they can reapply if they wish.
- o Another technique is the mailed purge letter. This is probably the most common technique in use around the country. At the end of 6 months or a year, a RSA might pull out the names of everybody in the files from whom they have not heard and send them a letter, saying: "We haven't heard from you. Is this information correct? Let us know." This technique will normally get about a 25 to 35 percent response. Low response to mail is a very common problem. Most people are apparently in that great silent majority that we sometimes talk about. You just don't hear from them. So what should a RSA assume? That their information is correct? Or wrong? If a RSA leaves the information in the file, on the assumption that it is correct, it is doing what is called a "soft" purge. The information is probably less correct, but the RSA will have a bigger file. On the other hand, a RSA could do a "hard" purge. That is, if a RSA doesn't hear from people, it deletes them. In this case, the information is probably more correct, but the file will be a lot smaller. In truth, some of the people not heard from probably are current and some are not, so either way the RSA makes a trade-off, giving up either quality or quantity of information.
- o Another approach is the employer purge letter. The burden of gaining a good response is placed on the employer and his or her ridesharing coordinator. If a RSA is working with a cooperative employer who has given a very high response rate to their initial survey, it can probably get a much higher purge rate than the 30 percent it might get in its own mail purge. This may be a very good technique when a RSA has a very cooperative employer. If it has an uncooperative employer to deal with, it

would be better off doing its own mailing or something else.

- o The next technique is employer re-registration. Employees registered from a company are deleted and re-registered, say, once a year. They are periodically asked to fill out an entirely new registration form. In some cases, this may be easier to do than distributing letters through channels and recollecting them, as would be required by the employer purge letter technique.

- o Then there is the telephone call purge. A RSA takes the information given to it, whether on the home phone or work phone, and calls everyone who has applied for ridesharing assistance. If they reach them, they can verify the data. If they can't reach them, for whatever reason, they can assume the information is wrong. Period. Applicants receiving such names on match lists would also be unable to reach them. In this way a RSA can get virtually a 100 percent response rate. Sounds good, but it can be very time consuming and expensive.

- o There is a seventh technique which is quite different; that is, ranking by age on a match list. In this method a RSA doesn't bother purging at all. It leaves everybody in the files, but when it prints match lists, it prints the most recent entries into the file first. What happens here? One of two things. If a RSA is matching somebody and has lots of people to match with, it is probably going to print out only about ten names even though there may be a choice of thirty names to print. What it is doing is sending out the ten best names in terms of their probability of being correct. So what is happening is that "older" people fall off the bottom of the match list and don't appear. On the other hand if there is a scarcity of names, say, only two or three, the RSA will probably print them all, even if they are three years old, because there is some chance they may be correct.

Each technique has its pros and cons--they are not mutually exclusive. One "best" solution to data purging does not exist. Combinations may be the best bet.

This covers what might be called the day-to-day data processing operations.

4.3 Data Processing Planning

Let's now take a look at data processing planning. There are two basic steps that take place when a new RSA or one that is going to make substantial changes begin planning for data processing.

- o It is necessary to choose desired functions.
- o An implementation plan must be developed.

Let's take a closer look at these steps.

4.3.1 Choosing Desired Functions

The first thing a RSA has to do if planning for new or expanded data processing is to decide what is needed.

What is the function it wants to perform? What services will it offer? What is it trying to do?

It could do carpool matching, vanpool matching and support, public transit information, purge procedures, evaluation statistics, market research analysis, etc. There is a long list of possible things to do.

The other question a RSA has to ask is, "When do we want to do these things?" Do we want to do all of this on day one, or do we want to start with carpool matching and move into vanpool matching and support a year from now when we bring the vanpool program in-house? Do we want to do public transit information now, or later? A new RSA doesn't have to worry about purge procedures for at least a year. It should be aware of them, however, and prepare for purging. The key is to decide not only what it wants to do, but when it wants to do it.

The next step for a RSA is to choose whether it wants manual or computerized data processing, or a combination of the two. The things to think about are the size of the data base and, possibly more important, the transaction rate. How many transactions per day, per week, per month, or however often it is going to be doing the processing.

The data base will tell a RSA how much computer storage it will need, or how big a file cabinet. The transaction rate and the number of functions to be performed will tell it whether it needs a computer or just a file cabinet.

The availability of computer support is an important

related issue. If a RSA doesn't have both hardware and people available--especially people--it should avoid computerized data processing. Good people are hard to get, especially for a small RSA that can't afford to hire a full-time person.

A RSA may have to get a loaned person part-time or hire someone part-time. This is very difficult to do. The computer market is definitely a seller's market. Someone willing to work under unusual circumstances is not likely to be found..

Where else can a RSA get support? It might be able to get a company to donate a staff person part-time. This can work well if the company will give a real commitment to this priority. A RSA could also hire an outside consultant and, since it would be paying for the service, its priority would be better.

The privacy of applicant information and maintaining it in a secure storage place also need to be considered in choosing a data processing system.

4.3.2 Developing An Implementation Plan

The next step for a RSA after choosing desired functions would be to develop a written implementation plan.

For manual processing, developing an implementation plan is relatively simple, as shown in the following three steps.

- o The first step involves choosing a geocoding method. Typical choices are zip codes and map squares on a pre-gridded map. The issues are area type and size, and data sources. Zip codes are easy to use, but their size can vary greatly and they can have funny shapes. Grid squares are more uniform, but they are harder to use because someone has to look up each address on a grid map. Other, less-likely geocoding possibilities include telephone prefixes, community names, etc. If zip codes or phone prefixes are used, there must be a procedure for keeping the RSA up-to-date when changes are made.
- o The second step is to define all procedures. This is often done in terms of inputs, processing, and outputs. For example, the "input" might be an application form, the "processing" might be a visual check for the presence of certain essential items, and the "output" might be two stacks of

application forms. Every procedure would be defined in detail.

- o The last step is to determine the staffing required to perform the defined procedures. This would be based upon how long each procedure would take and how many times it would be performed each week. It would usually take the form of job descriptions, a budget, and perhaps an organization chart (if required).

For computerized processing, it's not so easy to develop an implementation plan. It requires six steps.

- o The first step is to choose on-line or batch processing. Of course, this is a simplification because a RSA can also choose a combination of the two, as you will soon see. The major issues are: response time, cost, data quality, and security. Let's look at these issues in turn.
 - Response time is quite fast for an on-line system, typically one minute, as compared to one-day to one-month for batch processing, depending on how often a RSA wants to process.
 - The cost for an on-line system will be relatively high compared to a batch system. It's not realistic to give numbers, because they vary greatly by locality, but the relative comparison will usually hold.
 - Quality of data can be better with an on-line system because the computer can error-check the data as it is being entered and request corrections. This is especially valuable if the application is being taken over the telephone or in person, since immediate clarification can be requested. But for the typical bundle of application forms that come from an employer, there will be little difference in data quality.
 - Finally, security can be a big problem for on-line processing if a RSA is using telephone lines to the computer. You have probably heard horror stories about clever college students or crooks who have "broken into" computer systems via remote terminals over telephone lines. It is possible to guard against this, but such security measures are very expensive if they are any good. Data security in batch processing, on the other hand, is usually no problem because most computer centers maintain security

procedures in excess of what would normally be required for ridesharing data.

The major issue of these four is: What is "good" response time? If marketing is heavily employer-based, a one-week response time may be just fine, considering that an application might take at least a week from the time it is filled out to the time it reaches the RSA office, and may take another week to reach the applicant after it leaves the RSA office. But if marketing is heavily oriented to dial-in applications, there can be a noticeable difference between a one-minute and a one-week response time.

- o The second step in developing an implementation plan for computerized data processing involves choosing an in-house or outside computer system. If a batch system is chosen, the RSA will most certainly use an outside computer. If an on-line system is chosen, the RSA will have to choose between an in-house computer (a "minicomputer" or "microcomputer") or an outside computer (usually a "mainframe").

The basic issue in this choice is autonomy versus responsibility. With an in-house computer a RSA has complete control, and will never be "bumped" by a higher-priority job such as a payroll. But the price it pays is responsibility. The RSA becomes the caretaker of the system and has to tend to all its ills. This responsibility may be excessive for a RSA lacking personnel with technical backgrounds. Good technical support is essential for an in-house computer.

- o The third step is to choose the type of geocoding to be used. Geocoding is usually done manually but can be computerized. Possible geocoding units are zip codes, telephone prefixes, map grids, nearest major intersections, census tracts, voter precincts, landmarks, etc. Map grids are most commonly used.

Major problems are updating and rejects. As new streets are built in major developments, and as changes take place in zip codes, census tracts, etc., a RSA must have a mechanism for updating its geocoding system -- whether it be manual or automated. If it is using computerized geocoding, it must have some procedure for handling rejects (i.e., applicants that cannot be handled automatically). Rejects typically consist of about

10 to 35 percent of all applicants. A backup procedure for dealing with rejects usually involves manual geocoding. So manual geocoding to some degree is almost always required.

Computerized geocoding is a major technical undertaking. A RSA normally should not attempt automated geocoding unless someone else in its locality has already developed it and is using it. If there are other users, and if they are willing to share their system and subsequent updates, it is feasible to consider computerized geocoding for ridesharing. Even then, a RSA should have a workable manual system in place as a backup procedure. Some examples of local organizations that may already be using computerized geocoding systems are utility companies, police and fire departments, and ambulance and rescue services.

- o The fourth step in developing an implementation plan for computerized processing is perhaps the most fun--choosing an existing system or developing a new package. Choosing an existing system is probably the most feasible alternative. A large number of computer software packages are available at a much lower cost than the cost of developing a new package.
- o The fifth step is to define all procedures. There are usually more computerized procedures than with manual processing. A typical set of procedures might be:
 - Log in applications.
 - Scan for and correct errors.
 - Log out and send to keypunch.
 - Receive from keypunch and log in.
 - Log out and send to computer.
 - Receive printouts from computer and log in.
 - Prepare for distribution (separate by employer, etc.).
 - Log out and distribute.
- o Having defined all procedures, the sixth and final step in developing an implementation plan for computerized data processing is to define staffing requirements. As was true for manual processing, this would consist of job descriptions, an organization chart, and a budget.

Looking back over these last six steps, you can see that developing an implementation plan for computerized data processing is a substantial undertaking, requiring

perhaps one person-month of a ridesharing coordinator's time plus a comparable amount of time by someone with a data processing background. Actual implementation will require more time yet, depending upon which software package is chosen. The more sophisticated packages will probably require from 3 to 12 person-months for installation, testing, and training staff, and possibly even much more time than that before it is truly satisfactory.

Some good advice, particularly to new ridesharing agencies, is to keep it as simple as possible. Devote your resources to increasing ridesharing, not to computer tinkering.

5.0 SUMMARY

Data processing may include many functions. It may be manual and/or computerized.

But it must support the marketing strategy, which should be developed before any data processing actions are taken.

The data processing operating steps are:

- o Receive applications.
- o Process applications.
- o Distribute ridesharing information.
- o Personalize and follow-up activities.
- o Periodically purge old data.

The data processing planning steps are:

- o Choose desired functions (as dictated by the marketing plan).
- o Develop an implementation plan.

In the development of an implementation plan, it is necessary to determine whether to process data manually or by computer, or possibly both.

- o Steps for manual processing are:
 - Choose a geocoding method.

- Define all procedures.
- Determine staffing requirements.
- o Steps for computerized processing are:
 - Choose on-line or batch processing.
 - Choose an in-house or outside computer system.
 - Choose a geocoding method.
 - Choose an existing or new software package.
 - Define all processing procedures.
 - Define staffing requirements.

Always remember: KEEP IT AS SIMPLE AS POSSIBLE.

INTRODUCTION TO RIDESHARING
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MODULE 3

WORKING WITH EMPLOYERS



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 3

WORKING WITH EMPLOYERS

1.0 OBJECTIVE

Most ridesharing coordinators spend a great deal of time working with employers. This module describes dealings with employers and incentives employers may provide to encourage employees to rideshare. It also provides two case studies--one describing an employer's ridesharing program, the other describing the role of an employer's ridesharing coordinator.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, Section 6.2 and 6.5, NCHRP Report 241, Transportation Research Board, December 1981.

3.0 DEFINITIONS

- o Employer Ridesharing Program--any company, public agency, or institution (such as a school) that promotes ridesharing among its employees, members, or students.

4.0 WORKING WITH EMPLOYERS

4.1 Introduction

Across the country, companies are finding that it pays to establish an active transportation management program, both in congested urban areas and in the industrial bands lining our highways. The range of activities varies from company to company, but promotion of ridesharing is the common thread.

4.2 Why Employers Get Involved In Employee Transportation

Hundreds of companies have chosen to implement ridesharing programs. Why?

- o To reduce parking requirements.
 - Many companies have decided to institute ridesharing as an economical solution to overcrowded parking facilities.
 - With employees driving alone, more and more land must be devoted to parking as a company grows. The need for parking can be reduced when employees share the ride.
 - Children's Hospital in San Francisco deferred construction of a new \$800,000 parking facility by instituting an active ridesharing program.
 - Devoting less land to parking frees up space for better use, such as building expansion or open-space activities.
- o To reduce congestion.
 - Traffic congestion around work sites and on surrounding streets has prompted many employers to look to ridesharing as an effective traffic management solution.
- o To remain competitive in the labor market.
 - An effective ridesharing program is an employee benefit which can aid recruitment of personnel, and expand a company's geographic recruiting area. It can also help a company achieve equal employment opportunity goals.
 - A successful ridesharing program can help companies retain skilled labor in the face of ever-rising commuting costs.
 - If companies must use isolated work sites or relocate, as Erving Paper Company did from Erving, Massachusetts, to Brattleboro, Vermont, ridesharing can help retain their work force.
- o To ensure employee transportation.
 - Contingency planning for gas shortages and other emergencies makes good business sense because employee transportation is an economic necessity for business.

- o To improve productivity.
 - Companies report that a good ridesharing program can minimize tardiness and absenteeism.
 - Without the strain of daily commuting, employees arrive at work more productive.
- o To promote the company image.
 - Ridesharing can make a company a good neighbor to the community at large.

4.3 What Employers Can Do

Once a company decides to implement a program, what can it do?

- o Provide an in-house transportation management service. Many companies have found this to be the most effective way to implement a ridesharing program.
 - This service is frequently established within an existing company department, such as Employee Services or Personnel.
 - Program managers act as transportation brokers providing information and assistance about ridesharing to employees.
- o Encourage carpooling. A comprehensive ridesharing program tailors the full range of available alternatives to a company's specific needs. Perhaps the simplest option to implement is carpooling.
 - Carpooling was popular even before organized ridesharing programs began.
 - The number of carpoolers can be determined through a commuter survey and this information can be used to develop an initial match list.
 - Matching can be done quite simply by manual methods, by an in-house computer, or by the local ridesharing agency.
- o Promote Vanpooling. Vanpooling, in which 10-15 people share the ride and the costs, is becoming increasingly popular, both with companies and employees.

- Nationally, some 500 company programs currently provide approximately 8,500 vans.
 - At some locations, employees use their own vehicles for vanpooling, often relying on established matching programs to provide lists of prospective passengers.
 - Alternatively, companies sometimes find it advantageous to acquire the vehicles themselves or arrange for them through third-party vanpool programs, such as RIDES for Bay Area Commuters in San Francisco.
 - Vans can also make reverse commutes, servicing urban residents who work in the suburbs, such as Caravan's Boston to Concord route.
- o Support Public Transit. Public transit systems provide efficient service for companies that are located convenient to existing stations or bus routes.
- Few people realize that large employers can often negotiate with transit operators for improved services.
 - Some companies subsidize transit fares.
 - Chartered buses can be very successful when many employees come from the same area or when several neighboring companies coordinate their efforts. The drivers may be commuting employees or paid professionals.
 - Commuter rail serves some locations well, but shuttle service between the rail line and work site can expand its usefulness to many employers. Digital Equipment Corporation in Maynard, Massachusetts, for example, runs a shuttle van between its offices and the commuter rail station four miles away.
 - Other options, such as the shared use of taxicabs, can be used occasionally,
- o Work With Communities. Numerous communities offer programs which encourage commuters to rideshare.
- The Shirley Highway project, carrying commuters from northern Virginia into and later out of Washington, D.C., set the pace for demonstrating the benefits of special high occupancy vehicle lanes for carpools, vanpools, and buses.

- At the San Francisco-Oakland Bay Bridge, ridesharers pay lower tolls than those who drive alone.
- Many States now maintain easily accessible park-and-ride lots around the fringes of the cities where commuters can meet and leave their cars in order to rideshare.

4.4 How Employers Motivate Employees To Rideshare

Once a program is established, how can employers motivate employees to rideshare?

- o Develop a marketing strategy.
 - Typically, a ridesharing program has low start-up costs and marketing strategies can be developed which utilize in-house resources.
- o Provide Matching Services.
 - A commuter survey can help determine employee transportation patterns and desires. It may be a simple insert with a paycheck or other communications.
 - Transportation managers can make full use of local public assistance to business, such as the computer matching services provided by many ridesharing agencies.
 - Once a program's potential has been assessed, transportation managers can put together creative programs which offer employees better choices than commuting alone.
- o Advertise.
 - Company newspapers can carry ads and articles about ridesharing and can publicize special ridesharing events.
- o Make Personal Contacts.
 - New employees can be told about program options during company orientation procedures.
 - Personalized meeting techniques, such as coffee hours, for both new and old employees, can be very effective.

- o Provide Preferential Parking.
 - A popular incentive for ridesharing is preferential or free parking for pools.
- o Provide Flexible Working Hours.
 - Flexible working hours encourages ridesharing.
 - "No late meetings" rules are helpful.
 - Ohio Bell in Cleveland offers "taxi pools" to employees who miss their regular pools due to late meetings.
 - Other companies use midday shuttles, company cars, and transit passes to make ridesharing a more attractive commuting alternative.
- o Offer Prizes.
 - Some companies have instituted raffles and prizes for ridesharers.

A much more comprehensive look at incentives for employees to rideshare is contained in the next section.

4.5 Incentives

An employer is in a position to provide ridesharing incentives to employees and thus provide direct support to an employee ridesharing program. Realizing this, many ridesharing coordinators direct much of their efforts toward employers. In so doing, however, it is important (a) to know what sort of support through incentives an employer can give employees to induce them to rideshare, and (b) to persuade the employer to provide these incentives.

Incentives are essentially those things, both big and small, that respond to the question: What's in it for me?

People generally dream of--not work--but vacations. At base, they are not constitutionally disposed to work. They need incentives.

As for ridesharing, incentives take a variety of forms, as discussed below.

- o A ridesharing incentive can be something which replaces something an employee gives up. For

example, an employee who takes the bus may be allowed to leave work a few minutes early since it takes longer to walk to and from a bus stop and ride the bus than to drive a car. The employee gives up the need for a parking space and receives time in return.

- o A ridesharing incentive can provide a substitute for lost flexibility. For example, an employer can provide a company vehicle for carpoolers, vanpoolers, and bus riders to use should an emergency require them to leave work during the day.
- o A ridesharing incentive can make accommodations for the willingness to rideshare. For example, employees might be allowed to shift their work schedules by 15 minutes to better accommodate transit arrival/departure times.
- o A ridesharing incentive can take the form of a pass-through benefit that the company realizes from an employee's willingness to rideshare. For example, the company might provide each ridesharing employee with a free parking sticker for the company parking lot or an extra \$10 a month in the employees' paycheck.
- o A ridesharing incentive can also simply be a recognition of and commendation for sacrificing the convenience of driving alone. For example, periodic letters of commendation can be given to employees who rideshare.

Incentives commonly provided by employers with successful ridesharing programs include, but are not limited to, the following:

- o Appointment of a ridesharing coordinator and establishment of a ridesharing office.
- o Vigorous promotion of ridesharing.
- o Preferential parking in the form of reserved spaces when lots are crowded, or assigned spaces close to building entrances when lots are large. Even if the entire parking lot is close to the plant entrance, an area set aside for vanpools and carpools is a highly visible expression of management commitment and an effective promotional tool. Parking spaces could even be assigned to poolers with name tags or numbers for prestige value as well as for control.

- o Flexible working hours to allow for the formation of ridesharing arrangements with persons having different working hours.
- o Use of company vehicles during the workday for errands, lunch, and emergencies, and during the evening when rides are missed due to overtime or late meetings.
- o Advance notice of overtime so an employee can make alternate commuting arrangements or even obtain relief from overtime demands.
- o Priority access to low-cost fuel through bulk purchases.
- o Special drop off routes and stops at the work site for high occupancy vehicles.
- o Free physical exams for vanpool or buspool drivers' licenses.
- o Free vanpool fleet administrative services.
- o Free extra mileage to vanpool drivers.
- o Free insurance for vanpools under the company's self-insured policy
- o Free defensive driving classes.
- o Subsidies for buspool or vanpool passengers.
- o Empty seat subsidies to vanpool operators when starting up a company sponsored vanpool.
- o Cash bonuses to vanpool drivers.
- o Payment of employee van fares while on business elsewhere or traveling.
- o Company ownership of buses or vans.
- o Company owned back up vans for use when a regular van is in for repairs or normal maintenance.
- o Time off from work to attend vanpool or carpool organizational meetings.
- o Van shuttle service to nearby service stations for vanpool or carpool repairs or maintenance.

This is an impressive list. A word of caution, however. Incentives offered by employers may present unexpected problems of fairness, if not carefully considered. For example, when employer incentives for vanpools are compared against those for carpoolers, management often seems to be biased in favor of vanpoolers. Why?

- o Carpools have been around a long time. They are not as exciting a concept as vanpooling to many managers.
- o Vanpools involve uniform, identifiable vehicles, while carpools have many dissimilar and unidentifiable vehicles.
- o Carpools are harder to validate and present some ticklish distinctions. Are a husband and wife driving together a carpool?

Consider this situation:

The Biotz Widget Company obtained a special gasoline allocation for its vanpool fleet. Because the gas was delivered in volume to company tanks, the gas came at bulk prices, about 15 cents a gallon lower than retail pump prices. This exclusive benefit to vanpoolers made the company's carpoolers furious. Some even wrote their Congressman.

Why were the carpoolers upset?

- o The company saw this as a simple incentive, providing convenience and a certainty of future supplies, especially during fuel shortages, to vanpool drivers.
- o The carpoolers saw it as calculated threat, an attempt to either break up remaining carpools and force them into vanpools against their wishes or at best, to give preference to vanpools.

The company responded that:

- o It was merely "passing on" a vanpool incentive made available at a higher level--the State Energy Office.
- o Any attempt to fuel all carpools in rotation would be unmanageable from a number-of-vehicles standpoint and also from a validation standpoint.

The moral to this situation is:

How an incentive is perceived by employees is crucial to its success.

What about the equivalent treatment of transit riders, cyclists, and pedestrians?

An increasingly popular solution is to offer both preferential parking (or other incentives) to pools and discounted or free transit passes to transit riders. A more innovative but compatible proposal is to use parking revenues to finance a ridesharing and transit pass program. Another is to offer a free parking sticker to all employees, which can be redeemed for cash if not used.

A further step in transportation equity is to facilitate the complementary energy-efficient modes of bicycling and walking. Working with local governments to provide safe bicycle and pedestrian access may be important in suburban locations. Provision of showers and dressing rooms is appreciated by bicyclists, and at least one employer, Lawrence Livermore Laboratory, goes even further by offering free repair of bicycle flats and other minor problems during working hours.

4.6 Case Study: An Employer's Ridesharing Program

This case study documents one company's comprehensive approach to ridesharing. It is intended to provide some insight into the process of designing and implementing an employer program.

We have selected Aetna Life and Casualty as our ridesharing case study because of the range of ridesharing options it offers and because of the enthusiasm and imagination of their program staff.

We will look at how Aetna developed its program, why it is successful, and what its benefits have been.

Located in downtown Hartford, Connecticut, the home office of Aetna Life and Casualty employs 16,000 people. It is one of the largest employers in Hartford.

Aetna first initiated its program in response to the 1973 oil embargo. At that time the company was poorly served by public transit and there were no ridesharing agencies or third-party operators to assist with program development.

Like other companies, Aetna's employees faced many commuting problems. The first step was to assess the potential for solving them through ridesharing.

Employees were surveyed to determine how they got to work and to ascertain their general interest in ridesharing alternatives. The result provided a good indication of which alternatives might appeal to employees. Aetna used this information to implement an active ridesharing program.

We will follow the Aetna case study using the same order of activities that any company might follow in developing a ridesharing program.

The Manager of Corporate Services was given overall responsibility for the transportation management program. His first step was to establish program objectives and obtain top management approval.

The decision was made to actively promote ridesharing and to run the program through the Employee Services Department, a unit of Corporate Services.

The day-to-day administration of the program was estimated to utilize the equivalent of two full-time persons.

In addition to the Employee Services Department staff, other offices and departments provided support services to the program. The Fleet Administrator assisted in the purchase of vans. Help was also provided by others, such as the cashier's office and the security department.

The first element to be implemented was a carpooling program.

Today the carpool program serves 4,500 employees or more than a quarter of their staff in some 1,800 carpools.

Aetna has devised an unusual but effective concept for categorizing carpools as mini-pools and maxi-pools.

Mini-pools, 2 person carpools, are the most prevalent.

Maxi-pools, 3 or more persons, are given special incentives, which will be discussed below.

Although many companies rely on their local public ridesharing agency for all matching services, Aetna (a) performs its own matching utilizing an in-house computer, and (b) updates its town-by-town listing twice a month.

The company also advertises carpool vacancies in its in-house publications and on bulletin boards, and makes its carpool computer listing available in Employer Services.

Aetna has also devised an innovative and personalized "instant match" to fill carpool vacancies and to promote other forms of ridesharing.

Instant Match calls together people from a particular geographic area in an informal setting where they can get to know each other, exchange information on carpooling, and hopefully, form a pool.

Aetna offers a number of incentives to their carpoolers and other ridesharers. They feel this is a critical component of their overall program.

Maxi-pools (3 or more persons) can park in the garage adjacent to the main building. The convenience of covered, close-by parking is an incentive for commuters to form carpools of 3 or more persons.

Preferential parking is also given to mini-pools (2 persons) in open lots near the building.

To control parking incentives, cars are visually checked upon entering both the garage and lots. A driver has the flexibility of parking in the covered garage on any day that he/she has 2 or more passengers.

For the drive-alone commuter, however, it's always a long, and sometimes wet, walk to the office.

Staggered work hours at Aetna spread arrivals every half hour to decrease peak-time congestion. Carpoolers have adjusted their individual schedules and ridesharing has continued to increase despite the staggered hours program.

Aetna provides shuttle bus and van service between company buildings so employees do not have to use their cars during the day.

In the early 1970s, Aetna began negotiating with the local bus company, which responded by extending bus routes to Aetna's facilities and by providing more frequent service.

The Employee Services Department encourages the use of public transit by serving as an information clearinghouse.

Aetna does not sell or subsidize the cost of public transit passes, but other companies have found this to be an effective employer incentive.

Buspools are an important commuting mode for companies in difficult to reach areas.

In 1974, Aetna coordinated with two neighboring employers to charter buses to 5 outlying areas which had poor public transit service.

To keep fares competitive with other modes, the company subsidized up to 65 percent of the actual cost of the subscription bus fares. They have now eliminated charter buses in favor of vanpools.

Company employees take advantage of the Connecticut Department of Transportation's system of park-and-ride lots.

The newest element of the program is vanpooling, which Aetna adopted after studying the success of similar programs around the country.

Aimed at employees with long commutes, Aetna's pilot program began in 1977 with 3 vans and has grown to over 200 vans, serving 2,000 employees.

Vanpools operate on a breakeven basis with fares adjusted to recover the fixed and operating costs.

Organizational assistance is provided by Employee Services, which interviews and screens potential drivers and also arranges for driver training.

Once a vanpool has been organized, Employee Services arranges for the purchase or lease of vans and also for financing with Fleet Administration. Other companies have chosen to work with third-party vanpool lessors who supply both vehicles and know how.

Vans receive preferential treatment in Aetna's covered garage, as well as the use of company owned gas pumps.

However, it is Aetna's vanpool drivers who do most of the work administering the program. In exchange each driver receives free transportation to and from work, use of the vehicle on weekends at a minimal charge, and first rights to purchase the van when it is taken out of Aetna's fleet.

Drivers work with Employee Services to keep vanpools full, collect fares, and complete a monthly report. Drivers meet periodically to share ideas about how to improve vanpool service.

Van servicing is arranged by the drivers at dealerships or local service stations.

Aetna has found that enthusiastic promotion of all commuting options helps build an effective program.

Articles and ads are published in the Good Word, a weekly in-house news publication.

The ridesharing program gets top management endorsement.

Posters and special events promote ridesharing.

Bulletin boards present ridesharing information to all employees.

New employees receive information on the full range of commuting options.

Monitoring program results and maintaining enthusiastic support are key steps in achieving continuing success.

Aetna's staff keeps aware of current program participation and interest through employee surveys.

At Aetna, over 50 percent of the employees currently rideshare.

Despite an increase of 5,000 employees at its Hartford complex over the past 6 years, Aetna's parking requirements have remained the same. Without the ridesharing program, it has been estimated that 1,500 new parking spaces would have been required at an annual operating and maintenance cost of at least \$850,000.

Incentives, such as shuttle buses and vans for downtown lunchtime trips, instant matches, and personalized service help to maintain interest in ridesharing.

But it is the enthusiasm and innovation of company management that makes ridesharing continue to grow.

4.7 Case Study: An Employer's Ridesharing Coordinator

In this case study we will look at an employer's onsite ridesharing coordinator. This coordinator can help reduce the work of a RSA at a work site, while providing day to day services.

We have selected a case study of a unique program developed in the period 1977-80 at Lawrence Livermore Laboratory in Livermore, California. This case study is presented not so much as an example of a model program-- it is also that--but as an appropriate vehicle to talk about ridesharing coordinators.

Lawrence Livermore Laboratory is like a small town. It has about 200 buildings on a campus-like setting of about

a square mile, with its own street network. As far as ridesharing goes, it is not one common destination.

Prior to 1977, the Lab's involvement in ridesharing might be characterized as one of benign neglect. About the only active thing undertaken was during the gas crisis of 1973, when the Lab used files to match people into carpools. But when the gas crisis went away, so did the carpools. And a few buspools that had been formed.

In 1977, before the appearance of a ridesharing coordinator, Lawrence Livermore had (a) one regional transit bus, (b) a feeder bus which carried employees to the nearest BART train station, an hour's ride away, and (c) about nine old buses which one energetic employee had purchased during the gas crisis and induced friends and neighbors to ride. And there were some carpools left. All told, about 12 percent of the people at the Lab were involved in ridesharing in 1977.

By 1980, the Lab had over 42 percent of all employees involved in ridesharing and, if you include bikers, the figure exceeded 50 percent. The work force also increased during this period from 6,200 to 6,800. The solo drivers were the minority by 1980. In three short years, a dramatic turnaround had taken place. How did they do it?

The first thing they did was set up a new in-house ridesharing department called Lab Trans, short for Laboratory Transportation Coordination office.

Lab Trans came about through an employee suggestion program. Some employees wanted help with ridesharing arrangements. The Lab, in response, formed a committee to study the problem. After about six meetings of the committee, the chairman threw up his hands and conceded. "I think we had better get somebody to help us."

That is how the position of Transportation Coordinator or On-Site Ridesharing Coordinator came into being. The Lab chose a former State Department of Transportation planner to head Lab Trans. It was a choice they did not live to regret.

For if you were to walk out across the grounds of the Lab and watch how the people arrive for work, you would observe many different modes:

- o Bicycles.
- o Regional transit.
- o Local city buses.

- o The Lab's own commuter buses.
- o Carpools.
- o Motorbike pools.
- o Vanpools.
- o And, of course, the fellow who has to drive alone.

Here's how it was accomplished.

The new ridesharing coordinator developed some publications to find out what all the parts of the ridesharing picture at the Lab totaled up to be.

One publication, "The Lab Trans Brochure" was sent to prospective employees. They were seen as exceptional targets. If they could be marketed before they formed drive-alone arrangements, many could be encouraged to rideshare. The brochure said, in a very nice way, that the Lab encouraged ridesharing and did not owe employees a parking space.

The Lab wanted to establish the perception with new employees that provision of a parking space was not a condition of their employment.

Parking, in fact, was not a problem at Livermore. There were enough spaces, but they were not always in the right place. Some employees had to walk a half-mile from the parking lot to the offices where they worked.

We'll come back to the parking problem in a moment. Let's now, however, look at the growth of ridesharing at the Lab from a short time after the coordinator began working to about a year later.

Vanpool usage shot up after the vanpool program was established. Carpooling increased as well, indicating a complementary system was at work. Bike commuting also improved. Commuter bus lines suffered a decline of a couple of buses, but the use of public transit increased. The coordinator had done a good job. What was it he did?

At the time the employer's ridesharing coordinator was assigned, the city and county were at an impasse over a right-of-way issue that was impeding construction of a bike path. So the Lab brought the public, the media, and city and county officials together at the company site. Meetings held in the offices of the areas' largest employer obviously carried some weight.

The issue was resolved and the Lab got a good city bike path program. And the Lab, with 800 bike commuters, needed decent bike facilities, including bike traffic signals for crossing busy streets and bike crosswalks.

As part of the project, it also got some very good motorbike parking.

Another thing the ridesharing coordinator did was contact the local transit agency about putting in bus shelters. They agreed to put them up if the Lab poured the concrete pads. The Lab did, and the transit people did as they promised.

The point is, the ridesharing coordinator got the Lab involved with the community, with the decisionmaking process, instead of just trying to solve every problem with the Lab's own resources.

As part of that extended involvement, the coordinator improved the information dissemination process at the Lab. As an example, he found that the regional transit schedules had several pages of complicated time tables for a reader to sift through. The passively interested pooler will give about 8 microseconds of his/her time to reading stuff like that. So the coordinator designed and distributed "tailored" bus schedules with only the commute lines and commute times of interest to the employees living in the bus service area. This was enough to fill up the one "token" regional bus. He then went back to the transit company and convinced them that they could fill additional buses just by rearranging the transit district schedules from the Lab's perspective. The transit company eventually increased service to 7 buses by virtue of the coordinator's work in providing information about Lab work schedules, where workers lived, etc. The transit people have no way of knowing some of these things unless somebody starts a dialogue.

Another improvement in the information process resulted in the elimination of some bus stops in the parking lots. It took forever for transit buses to wind through the lots and get off the site. Three bus stops were eliminated. The Lab acquired 900 bicycles to get people from their work stations to the remaining bus stops.

About those bikes. They solved the problem of travel delay in the lots, but they created a new problem. Men's bikes, women's bikes, seats too high, seats too low. People would come out and there would be only three bikes available, and they'd say, "Gee, I can't use any of those." So the Lab designed a unisex bike with an adjustable seat so anybody could use it. It was not an expensive operation.

The Lab registers carpools as a system. It does not do matching in the usual manner, partly because it is a contained facility and does not have opportunities to rideshare with other companies in the area.

Each carpool selects a captain who fills out the front and back of a computer sized card which gives enough information to know which carpools have openings. Space for carpool and vanpool applicants is first sought in existing pools rather than by forming new ones. Applicants who cannot be placed in operating pools are added to the carpool data base as a carpool with a current occupancy of one. Although close-in parking privileges are not extended to this pool, it is otherwise treated like larger pools for placement of prospective riders. In this way, Livermore shifts from the normally passive placement approach (exchange of match lists) to an active approach (referral of prospective riders.) Three-quarters of Livermore ridesharing applicants are placed within a week.

The Lab ridesharing coordinator did experience one failure. He knew that if he wanted to get people from very short distances to carpool, he would need to find some substitute for the flexibility of having a car at work. Many employees brought cars and ran out to the bank, the Post Office, etc. on all sorts of errands. Moreover, the commuter buses were parked at the site all day. With volunteer bus drivers he felt he could use the buses to run downtown at noon and thereby provide a shuttle to the bank, the stores, etc. It didn't work because the lunch hour was very tight and people wouldn't wait even 5 minutes for the bus.

One successful part of the idea, however, was the contact the coordinator made with the downtown merchants. They agreed to give people a coupon for a return ride if people used the shuttle service. They put signs in their windows and gave free ride coupons which the Lab sold to them for 25 cents each to help pay for renting the buses.

Vanpooling is the program that saw the most dramatic growth and most of it must be attributed to employee acceptance. It filled a niche that wasn't filled before. The Lab put as many vanpools on the road in just May and June of 1979 as it had in the entire preceding 18 months.

The third-party vanpool option was a very easy way for the Lab to begin. Employees were not familiar with vanpooling and there was a convenient third-party operator, RIDES for Bay Area Commuters, in the area.

So the Lab publicized the new venture. And got some very interested volunteer drivers.

Strangely enough, the transit company helped to initiate the vanpool program. Two of the commuter buses were

carrying only 25 people, one serving a 30-mile one way trip. The bus company asked the coordinator to work with them to put the riders in vanpools instead. So a system was worked out whereby the bus operator would service the major employee concentrations and the vanpools would pick up the smaller pockets.

The project began with a vanpool formation evening meeting at the potential vanpool operator's house. The 25 bus riders were invited, as well as anyone else they knew to be interested. Seventy-five (75) people showed up and all joined, translating one 25-passenger bus into five 15-passenger vanpools.

Today, vanpools spread out and cover most of the area with walk-to-stop service where before, most people had to drive to the old bus pickup points.

Soon after, the Lab announced a plan for drivers to purchase their own vans. It published information about costs and benefits, including a cost comparison between the third-party program and the driver-owned programs where it was found there was a 20 percent cost advantage to the driver-owned program for the average 75 mile per day trips the vanpools were making.

Once the vanpool program was up and running, a voluntary vanpool operators association was formed.

With the association, vanpool operators could start solving their own problems without calling on the Lab coordinator. This provided the coordinator needed time to concentrate resources on getting new vanpools formed.

The Lab ridesharing coordinator provided monumental personal services in getting the vans on the road and keeping them there.

There were, first of all, many evening meetings, the vanpool equivalents of Tupperware parties.

There was also the analysis of options, of perceiving benefits and selling people on them.

Then there were details connected with financing, and with maintenance and gas availability.

For instance, the ridesharing coordinator went to the local banks and invited them to participate as part of a community involvement. The Lab was supporting the project in terms of rider placement and other support services. Would the banks provide financing?

Several banks responded. The best offer was 5-year financing at 11 3/4 percent, an offer that at the time could not be refused.

The banks asked only that the Lab not recommend drivers who did not have a solid group of riders or who were believed to have little chance to succeed.

The ridesharing coordinator approached the area van dealers and wound up with a best-offer of \$125 over list price, special arrangements for maintenance, and a 25 percent discount on parts.

The Lab feels that more than anything else it is the personalization of service, initiated and continued by the ridesharing coordinator, which has made the difference at Livermore. Employees have been convinced the Lab is in ridesharing to stay. So have the banks, merchants, automobile dealers, and the transit company. The Lab is providing a service and is going to be there to provide continued service and support.

5.0 SUMMARY

Most ridesharing coordinators spend a great deal of their time working with employers.

Consequently, hundreds of companies have chosen to implement ridesharing programs in order:

- o To reduce parking requirements.
- o To reduce congestion.
- o To remain competitive in the labor market.
- o To ensure employee transportation.
- o To improve productivity.
- o To promote the company image.

Once a company decides to implement a program, employers can:

- o Provide an in-house transportation management service.
- o Encourage carpooling.
- o Promote vanpooling.

- o Support public transit.
- o Work with communities.

An employer is in a position to provide ridesharing incentives to employees and thus provide direct support to an employee ridesharing program. Once a ridesharing program is established, they can motivate employees to rideshare by:

- o Developing a marketing strategy.
- o Appointing a ridesharing coordinator and establishing a ridesharing office.
- o Providing matching services.
- o Advertising.
- o Making personal contacts.
- o Providing preferential parking.
- o Providing flexible working hours.
- o Offering prizes.

There are many things employers can do to promote and encourage ridesharing among employees. Conceivably, no two employers will have the same needs, resources, or inclinations to support the rideshare enterprise. Hence, the resourcefulness of the ridesharing coordinator may be the key element in determining precisely what can be accomplished.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 4

MARKETING RIDESHARING



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 4

MARKETING RIDESHARING

1.0 OBJECTIVE

Marketing is a process which, relative to ridesharing, seeks to determine the types of products and services that should be offered, how to offer them, and to whom. Marketing activities help make ridesharing programs more cost-effective by helping coordinators (a) select responsive customers, (b) decide when and how to change an existing product, its price, promotional methods, or distribution channels based on changing market needs, and (c) replace trial-and-error marketing decisions with more effective marketing methods. This module will provide a brief overview of the various aspects and elements of marketing, provide an outline for a market plan, and discuss techniques for marketing to employers, employees, and the general public.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, Sections 3.5, 4.6, 6.1, 6.2, and 6.3, NCHRP Report 241, Transportation Research Board, December 1981.
- o Strategic Marketing for Ridesharing Professionals, FHWA Training Course, May 1984.

3.0 DEFINITIONS

- o Marketing--a process which seeks a clear understanding of a given market to determine the type of products and services that should be offered, how to offer them, and to whom.

o Products--transportation offerings such as:

- Vanpool vehicles (of any capacity or configuration, leased or purchased).
- Motor pool vehicles (worksite-based fleet vehicles).
- Transit passes.
- Park and ride facilities.

Services--transportation offerings such as:

- Carpool matching, formation and/or placement.
- Vanpool matching, formation and/or placement.
- Transit schedule assistance or referral.
- Commuter "clubs" and associated benefits.
- Shuttle service information.
- Moped, motorcycle, or bicycle information.

4.0 MARKETING RIDESHARING

4.1 Ridesharing As A Business

A ridesharing program is a business which markets various products and services, as defined above, to commuters. For the business to be successful, it must satisfy the following conditions:

- o Each service or product offered must be clearly defined and understandable to the commuter.
- o The benefits of using each service or product must be easily discernible by the consumer, and clearly shown to exceed their cost.
- o There must be consumers with an identifiable need for each service or product offered.
- o Services and products must be delivered reliably by a credible organization.

4.2 What Is Marketing?

There are some common misconceptions about the field of

marketing. Let's first dispel these misunderstandings. For example:

- o Marketing isn't just advertising. Probably since advertising is such a visible part of our everyday lives, we come to assume that advertising is the only, or at least the main, activity that makes up marketing. As we shall see shortly, this is not the case.
- o Marketing isn't just selling, either. The salesperson is probably the other most familiar part of the marketing world that we see every day. Selling is a large part of marketing, but again, isn't the whole ball game.
- o Perhaps something even more important to understand is that marketing isn't just for the private sector. It is needed in the public sector, too, whenever programs sponsored by the public sector are to be utilized by the public. In fact, the public sector employs marketing all the time, but often doesn't know it. Sometimes marketing is cloaked in phrases such as "outreach", usually because public sector personnel aren't quite sure that "marketing" is "okay" to use in their efforts to establish public acceptance for some new public program. Ridesharing has been an excellent example of this. Early reluctance to use marketing skills has slowly evolved to a better understanding of, and acceptance of, marketing used by RSAs.

In essence, marketing is an entire range of activities employed by any organization involved in the voluntary exchange of values.

Like many other organized disciplines, such as urban planning or civil engineering, marketing requires an orderly process of analysis, planning, implementation, and control.

The document used to organize this approach is called the market plan.

4.3 The Market Plan

Most RSAs develop a market plan on an annual basis. This gives them an opportunity to establish goals and objectives for the coming year and provides performance standards which can be used to evaluate their program both during and at the end of each year. Such management by "objective" is far superior to managing by "trial and error."

The design of any market plan incorporates two essential elements--an overall "program strategy" and a "product or service strategy."

Developing a program strategy is basically a matter of "policy" analysis and planning. There are six steps:

- o Establish Program Goals: State overall goals (i.e., broad statements of a program's purpose or mission) at the onset of a new program and review periodically thereafter in order to define the type of transportation improvements the ridesharing program intends to yield (e.g., reduce pollution and congestion through increased vehicle occupancy rates).
- o Define The Program: Determine the business the ridesharing program has entered by describing the scope of services offered, the customers to be served, and the ways the program differs from other transportation services in the area. It is surprisingly easy for a ridesharing program to evolve with no careful forethought. Once introduced, it is difficult to withdraw a product or service. Hence, a stated program definition is essential to assure there are no misunderstandings as to what is being offered and to whom.
- o State Program Objectives: Decide what share of the selected target market the RSA will capture or maintain, or the rate of program growth desired, at some acceptable cost-to-benefit ratio.
- o List And Describe Products And Services: Carefully define each product and service offered and determine their value to commuters that have been chosen.
- o Identify Target Markets: Determine the groups of commuters that present the best marketing opportunities.
- o State Product Marketing Objectives: For each product and service, decide the market share or program growth to be obtained by the RSA.

Developing a product strategy is essentially "market" analysis and planning. There are four steps:

- o Assess The Market Situation: Analyze consumer demand for each product or service to establish its marketing objectives and identify specific problems and opportunities to be addressed by the marketing strategy.

- o Design Marketing Strategies: For each product or service, establish or revise its features, price, distribution channels, and promotional methods.
- o Develop An Implementation Plan: Select tactics to carry out the strategies efficiently and effectively and outline a work plan which specifies task assignments, budget, and timetable.
- o Evaluate Marketing Results: Assess product marketing accomplishments and draw conclusions upon which to base recommendations for the next marketing cycle.

Constructing a market plan is a major task. It is unlikely that a detailed plan will evolve in a RSAs first or even second year of operation. But the development of such a plan should be an early organizational goal--the sooner one is started, the better off the RSA will be.

A sample outline for a ridesharing program market plan is shown on the next page.

Sample Outline: RIDESHARING PROGRAM MARKET PLAN
For the Period _____ to _____ (e.g., Fiscal Year)

PROGRAM STRATEGY

1. Program Goals
2. Program Definition
 - a. Scope
 - b. Segments (Primary/Secondary)
 - c. Differentiation from Competition
 - d. Strategy
3. Program Objectives
4. Product Portfolio
 - a. Product Descriptions
 - b. Product Target Markets
 - c. Product Marketing Objectives

PRODUCT STRATEGY (Develop for Each Product or Service)

- I. MARKET SITUATION ASSESSMENT
 1. Marketing Environment Analysis
 - a. Market Size and Share
 - b. Competing Products and Marketing Activity
 - c. Customer Attitudes and Preferences
 - d. Internal Capabilities and Constraints
 - e. Current Marketing Activity
 2. Problems and Opportunities
- II. MARKETING STRATEGY DESIGN
 1. Marketing Strategies
 - a. Product Strategy (Including Packaging)
 - b. Pricing Strategy (Including Incentives)
 - c. Distribution Strategy ("Pipeline")
 - d. Promotion Strategy (Including Advertising, Publicity, and Personal Selling)
- III. IMPLEMENTATION PLAN
 1. Tactics
 - a. Product
 - b. Pricing
 - c. Distribution
 - d. Promotion
 2. Work Plan
 - a. Timetable
 - b. Budget
 - c. Task Assignments
 3. Monitoring and Reporting
- IV. EVALUATION PLAN
 1. Historical Evaluation
 - a. Rideshare Yield (Results)
 - b. Direct and Indirect Effects
 - c. Production Activity
 - d. Cost To Benefit Ratios
 2. Formative Evaluation
 - a. Conclusions
 - b. Recommendations
 3. Reporting

4.4 Basic Marketing Concepts

There are some important concepts that are useful in developing an effective market plan and in understanding ridesharing marketing in general. These concepts are discussed below:

- o Marketing is a dynamic process and conditions are rarely ideal. Consumer demand fluctuates, external constraints change, and marketing resources vary from period to period. In effect, when anything is marketed, aim is taken at a moving target. The constant challenge of marketing is to locate and aim through a "strategic window," which is that fleeting point in time when customers' needs and the abilities of the ridesharing program are well matched. At that point the greatest results will be obtained with the least resources.
- o Goals and objectives differ. Goals are broad statements of a program purpose or mission. Objectives are measurable, quantified statements of performance, bounded by time and money. Let's look at two examples:

Example 1: Establish as many carpools as possible, as soon as possible, at as low a cost as possible.

Example 2: Establish 250 carpools carrying an average of 2.4 passengers each by December 31, at an average cost not to exceed \$60 per pooler.

The first example is, of course, a goal. The second example meets the criteria for an objective. Quantity is specified (250), a time deadline is established (year end), and a cost ceiling is set (\$60 per pooler). The time constraint is usually the normal marketing cycle (e.g., fiscal year). The budget constraint is usually based on the total operating budget for the RSA. Objectives may be set rather arbitrarily at first and revised at mid-year if necessary.

- o Marketing efforts should be focused on target markets (i.e., groups of commuter prospects identifiable as having a high potential to purchase ridesharing products and services). This is far more cost-effective than marketing to the entire population as a whole or even to the entire commuter population.

- o Products and services, both those of a RSA and its competitors, should be analyzed from the consumer's point of view. Economic, political, legal and regulatory, and social trends which may be changing the marketing environment should be studied and understood. The purposes of these activities are to (a) identify opportunities which could facilitate success, and (b) identify specific barriers which may impede marketing efforts.
- o Once opportunities and problems have been identified, the next task is to change one or more of the following "four P's" to take advantage of the opportunity or alleviate the problem:

Product denotes the basic elements or characteristics of a ridesharing product or service offered to a selected customer. The vanpool product can consist of 15-passenger bench-type vans. This product may appeal to a blue-collar customer, but a white collar customer might prefer a 10-passenger luxury van with reclining seats.

Price denotes the total cost of the product or service to the customer and the way in which payment is made. For example, one van owner may charge riders a flat monthly rate, without allowing for vacations or other lost days. The rationale applied may be that everything averages out in the end. Another van owner may elect to have more passengers than the van can carry on a total rider list, and allow several of them to ride on a daily basis, as space may permit, in order to allow maximum flexibility to the other riders while maintaining van revenues at a break-even level.

Pipeline is a convenient "P" word to denote distribution. The way in which materials, messages, and even vehicles are distributed is at the heart of the marketing effort. Simply put, if nobody sees a RSAs brochure because it's still sitting in cartons in the basement, then the distribution part of the marketing job just isn't being done. The money invested in developing and printing the brochure is wasted unless an appropriate investment is also made in distributing it.

Promotion is the most visible range of marketing activities. It includes advertising, publicity, displays, presentations, and the like. These are the activities which provide the spark to a good marketing campaign, as well as convey the important customer information and persuasion needed to sell ridesharing's services and products.

- o Facts rather than assumptions should be used to yield reliable conclusions for use in marketing decisions. Data should be gathered from libraries, local agencies, or other sources or performed by the RSA whenever possible to provide factual support for decisionmaking.
- o Efforts should be made to provide what the consumers want. Rather than developing a marketing strategy from the perspective of the provider, RSAs should seek a thorough understanding of how well consumers like the present product, what additional features and benefits they might need, and why.

4.5 Marketing To Employers

Almost all RSAs rely heavily on employer marketing. There are at least four reasons for this:

- o It is more effective and usually less expensive to use existing company channels for distributing promotional materials, application forms, and other materials.
- o People respond more readily to employment site approaches than to mass appeals.
- o Applications received from employment sites have common destinations; whereas, applications received from throughout the region have widely dispersed origins and destinations. Having common destinations typically increases the number of matches available for an average applicant by a factor of five to ten.
- o Market segments at an employment site are easier to study, understand, and tailor matches for than are segments from the general public.

Employer-based ridesharing efforts are handicapped from the outset if the upper management of a company does not actively support those efforts. Successful RSA experience has shown that in dealing with management, as

with consumers, the key element is to offer them a service that will be of real benefit to them as well as their employees, and to make certain they realize the benefit.

Implementing a successful employer-based marketing program requires five essential steps: "commitment, capability, procedures, coordination, and diligence."

o Commitment: It is imperative to gain an employer's commitment to:

- Implement ridesharing policy.
- Appoint staff.
- Set a budget.
- Design the operation.
- Establish administrative procedures.
- Offer incentives.
- Provide ridesharing/commute services.

An employer can shape his/her commitment into an effective ridesharing program by implementing these seven activities.

Policy: An employer's ridesharing policy should, as a minimum, (a) recognize ridesharing as an employee benefit, with company time made available for matching and promotions and (b) establish that company resources will be made available on a permanent basis for employee commute assistance at a sufficient level to enable setting and meeting annual participation goals. The policy should also make provision for specific products and services. Finally, and most important, the policy must be strongly supported by management both in word and deed. Management sets an example through both policy and the commuting behavior of its own executives.

Staff: As a minimum, a part-time commute coordinator should be provided for each facility of 500 or more employees. Additional support staff, especially a matching clerk, may be needed if the firm is actively assisting rideshare formation. It is also extremely important to provide a management liaison which

will enable the coordinator to foster communications and maintain visibility for the ridesharing program with the top decisionmaker.

Budget: Employers provide budgets for commute alternatives which range from stolen time from other administrative duties to annual line item budgets. A first step in ridesharing budget planning is the recognition by an employer of the costs of employee transportation which are already being experienced by the firm, including construction and maintenance of parking facilities, rental parking costs, access roads, transit pass subsidies and sales, and the like. Once these true costs are quantified, ridesharing alternatives often appear much more cost-effective and attractive.

Operation: Ridesharing programs at employment sites vary widely in their operation, and include any or all of the following activities: creation of annual participation goals; registration drives and surveys; carpool/vanpool formation assistance; updating of employee data; recordkeeping and monitoring; preferential or permit parking; fleet operations; and coordination with the local RSA, neighboring companies, and transportation providers.

Administrative Procedures: As a minimum, administrative activities should include supportive actions, such as new employee orientations and program coverage in the company newsletter. Even more significant support may be provided in the form of payroll deductions of mode fares or transit passes, or in the use of internal distribution mechanisms (e.g., internal mail, paycheck stuffers) to communicate with employees about the ridesharing program.

Incentives: Cash and/or non-cash incentives should be created. Cash incentives might include cash allowances for commuting by selected modes or the underwriting of van purchases through a local bank or the firm's credit union. Non-cash incentives, which seem to provide important psychic benefits, might include employee recognition for using energy-efficient commuting methods. Also possible are visible perks such as preferential or reserved parking for vans and carpools and lockup facilities for bicycles and motorcycles. Some firms have found that the institution of

flextime can stimulate ridesharing by allowing employees to flex to accommodate commute arrangements.

Services: The most common ridesharing services being provided by employers are vanpool programs and inter-facility shuttle services at multi-site companies. Less common, but apparently effective where in use, are the use of company fleet vehicles for pooling, the provision of on-site fuel, and van maintenance.

- o Capability: Returning to the five critical steps necessary for a RSA to implement a successful employer program, the RSA must be able to deliver the necessary support services.

Just as the employer integrates ridesharing into the fiber of his/her organization, so must the RSA in implementing its employer strategy. The RSA must develop the necessary policy, planning, staffing, training, budgeting, operation, administration, and materials to do the job.

This effort, while not easy, does not require staff or resources beyond what is already at hand. A RSA with very limited staff and budget should execute very basic employer support programs, and only to as many employers as it can handle comfortably. Since all employers in the community do not participate at once, it is possible to schedule appointments and outreach to accommodate available RSA resources.

The success of the employer-based program depends on the person who is selected to carry the ball. Many RSAs who are engaged in employer outreach find that, with the low salaries they are able to pay, their best candidates sometimes are recent college graduates who have some business or sales experience and want an opportunity for on-the-job training. Other RSAs utilize program managers, often senior persons who can more easily contact and relate to employer management. A few RSAs have utilized retired executives from the community to open the door to key employers, and then revert to younger staff personnel for implementation and follow-through with worksite coordinators. In any event, effective RSA and employer coordinators seem universally to exhibit the characteristics of enthusiasm, flexibility, goal orientation, sales orientation, and concern for the environment.

- o Procedures: RSAs must adopt some basic marketing procedures. These will shape the day-to-day relationship with the employer client. The most important marketing procedures are those which help the RSA gain entry to the client in order to conduct an exploratory interview, and then to obtain and confirm the employer's commitment. Some RSAs use company record forms to guide the interviews when pertinent information concerning an employer's situation can be obtained. Confirming an employer's commitment can be done using a simple letter of understanding which clarifies the expectations between the two parties, and makes the RSAs presence and assistance seem more business like.

Registration/survey/application forms and procedures can also make a major difference in the effectiveness of the RSAs assistance to the employer. If the RSA uses a survey form to gather employee transportation data on a strictly voluntary basis, the yield of completed surveys is likely to be low, in the range of 5 to 10 percent of total employees. If the RSA adopts registration procedures which involve the employer in requesting compliance, returns as high as 100 percent can be obtained. While high returns can mean that the RSA will generate many more ridesharing matchlists, this need not be the case. As most of the transportation surveys are currently designed, their purpose is to gather data for the employer's use in learning about the travel origins of company employees. Matchlists can be generated for just those who request them.

Procedures for matchlist delivery also vary by RSA. Some RSAs mail the matchlists directly to employees' homes, at public expense for postage and labor. Others have cultivated employer cooperation in distributing matchlists via the company internal mail system. The latter alternative requires the RSA to manage the delivery, in the sense that the matchlist does the commuter no good if it does not reach him. In this instance the RSA outreach person must stay in close contact with the worksite coordinator until the matchlists are delivered safely.

The on-going maintenance of ridesharing records and commuter registrations can fall to the company or to the RSA. In many cases, it can be done more efficiently by the company, if sufficient resources have been committed by the employer to the program to maintain active matching.

- o Coordination: Coordination is essentially a continuation of the marketing procedures discussed previously. At this point we are trying to coordinate the operation efficiently. Just who, the RSA or the employer, does what? Who is responsible for which functions of the ridesharing program?

There are probably no "right" answers to where the responsibility for various functions should rest. Some employers are highly capable and provide most or all of their own services. Others, especially those with low-level management commitment, require the RSA to handle most details of the program.

- o Diligence: RSAs experienced in employer outreach have found that the key ingredient to their success is diligence. Making progress with employers requires "recontact, renewal, and recommitment." A basic rule of client marketing is to recontact clients as often as there is something new to say or offer. This keeps the program fresh in the client's mind. The new information renews the employer's interest. This factor is especially important for the worksite coordinator, who is often hungry for new information which will make the program, and him/her, more visible. Obtaining periodic employer recommitment to the concept of ridesharing is also necessary. This reinfuses energy from management to employees, which results in replenishing pools and lost riders as employee turnover takes its toll. A strong new employee registration and placement program is also critical to maintaining the vitality of the company rideshare program.

4.6 Employer Marketing Tools

Tactical tools used to gain entree to and sell the employer include some of the following, all of which can be effective if used in the appropriate way.

- o Initial Contact: Most often the telephone can be used to contact an employer directly to set up an appointment for a personal meeting. Occasionally a mailing is used to alert several employers at once, usually when a new service is being added or when a special situation is imminent, such as major highway reconstruction. In this case the telephone is still the follow-up tool to the mailing to set up an appointment for a personal meeting. A third technique, peer contact, is extremely effective as

a ground-breaking device in advance of the telephone appointment for a presentation meeting. At no time should mailers, brochures, or peer contact replace the personal presentation made by the RSAs outreach representative.

- o Presentation To Management: At times an individual management presentation can be augmented by a group management presentation, if all the parties who will participate in the employer's decision process have been identified and can be gathered together. Spending money to produce a film or slide show to make this presentation is not necessary, but can be useful if kept short and professional. Brochures and handouts are not good presentation tools. They are useful only as leave-behind pieces for management to look at and pass on to the staff person who will be in charge of handling the program. Using them to guide a one-on-one conversation could be distracting.
- o Follow-Up and Follow-Through: Once management has committed to a ridesharing program, a supervisor workshop and coordinator training are commonly used as techniques to initiate implementation. The supervisor workshop is a critical step for the RSA in assuring that management's agreement to provide ridesharing assistance to employees actually carries thorough to the lowest levels in the organization. RSAs who meet with first-line supervisors in the presence of a management representative consistently get better cooperation. This also lays the groundwork for a stronger program over time. Several RSAs train the employers' coordinators. This is beneficial since most coordinators have been pulled from another activity, usually administrative, and have never been taught the sales and promotion techniques which will be required to form carpools and vanpools. By training the coordinators, the RSAs ensure that common procedures are adopted from company to company.
- o Additional Support: Some RSAs produce newsletters for employers which provide information on progress being made throughout the area. This establishes the RSAs as information brokers and stimulates employer networking. The resulting information sharing helps to speed up the transfer of ridesharing knowledge.
- o Deliverables: Two important computer products useful to management are the "density analysis" and

the "commute statistics" printouts. The density analysis usually is a crude computer picture of the origins of the firm's employees. It is invaluable in determining whether clusters of employees are dense enough to support vanpooling or club bus service. The commute statistics sheet can be a useful management tool to analyze employees' current commute distances and modes as input to deciding which transportation support services to provide. It also sets up the ability to track employee mode shifts over time.

4.7 Marketing To The General Public

It is important to increase the public's readiness to accept ridesharing. In this regard, let's take a look at the marketing of ridesharing directly to the public.

The purposes of marketing ridesharing to the general public, typically by mass media techniques, are (a) to reach solo drivers who are ready to rideshare and cause them to act, either by calling the RSA or by finding their own ridesharing arrangement; (b) to inform the public of the availability and importance of ridesharing; and (c) to make it clear that ridesharing is widespread, not just a unique activity practiced by only a few.

RSAs should not rely on mass media for attitude changes because they generally do not have the budget or the technical expertise to mount an effective attitude changing campaign. Such campaigns normally require not only sophisticated media approaches, but complementary community activities.

4.8 Advertising Strategies

Advertising can be used to promote ridesharing generically or to promote a particular mode, such as carpooling or transit. It can also be used to develop or reinforce community support. It must, however, be developed carefully to accomplish one or more of the following communications objectives:

- o Increase awareness.
- o Create interest.
- o Increase the rate of commuter inquiry.
- o Increase the trial of products and services.
- o Reinforce regular use of that mode.

Advertising involves both the "message" given consumers about the product and the "media" used to project that message.

- o A range of messages can be used to advertise products from different perspectives. Thus, ridesharing can take on a different "look" or "personality" based on copy changes, to appeal to selected commuter segments who could be motivated to rideshare for very different reasons. If earlier marketing efforts or product changes have left commuters with incorrect information, advertising can be used to correct misperceptions about the product, its price, or how it is used. From time to time a product needs to be entirely repositioned in the market in order to make it or keep it viable. Advertising copy is a primary tool to quickly generate commuter awareness about such changes.

- o Media strategies determine how to effectively use an advertising budget to achieve the desired coverage. A media plan may call for broad coverage, targeting all commuters in a service area or within a firm. If a RSA has no advertising budget, and is relying on public service access to specific media time and space, broad coverage may be the only practical option. It may be possible to target media efforts to the largest segments of commuters, such as auto drivers, through the careful use of media such as drive-time radio, billboards, and parking lot flyers. This strategy narrows expenditures more efficiently to those commuters whose current commute patterns place them within the target market. A third media strategy which is especially useful for programs with small budgets or specialty products like vanpooling is to target only prime prospects. This strategy would employ more direct media methods such as direct mailings to van owners, door hangers to homes along selected bus routes, or handbills to auto drivers on selected freeway entrances.

There are good and bad times to begin ridesharing campaigns.

- o Good times to begin a campaign may be (a) when an industry opens a new plant, (b) when a new shopping area is opened, (c) after a vacation or a job relocation period, (d) during major highway reconstruction, (e) following cutbacks in transit routes, (f) when there are fuel shortages, (g) after paying taxes or after Christmas when people

are short of funds, and (h) any other time there seems to be a need to conserve.

- o A poor time would be just before vacation season or Christmas when continuity will be broken or a high degree of mobility is needed for shopping.

4.9 Choice Of Media

In marketing to the general public, the first step is to establish communications. Communications must be credible because the public is deluged with a broad spectrum of sales and media publicity. Communications must also be conveyed through the correct channels at the right time to capture the imagination of the commuter and to awaken the possibility that ridesharing may be economical, convenient, and pleasurable.

Let's look briefly at some examples of why (a) radio, TV, newspapers, and billboards are used, (b) publicity tends to be cheaper and more credible than paid advertising (though it requires more effort), and (c) a RSAs choice of media depends on its situation and budget.

First, which medium? Media analysts would tell us that radio and billboards are the most effective media to use for ridesharing. Why? Because in order to penetrate the many conflicting messages seen and heard everyday, the best way is to arrange for the message to be seen and heard in its most favorable context. In the case of ridesharing, commuters are thinking about their commute trip most intensely while they are actually in their vehicles making the trip. Radio and outdoor messages are heard and seen most often at these times, too. Both media are therefore more favorable for ridesharing messages than are television or newspapers.

Freeway and parking lot signs, which many departments of transportation have made available to RSAs in their communities, are probably the most common form of public ridesharing marketing. These signs are very cost-effective because the only costs incurred are for manufacturing and installation, and there are no recurring "space" costs charged to the RSA. The signs also have a long field life, providing a steady trickle of response to the public telephone line at the RSA. It should be noted, however, that using these signs as the only form of public marketing would be ineffective. The signs cannot provide the more detailed information needed by many commuters before their interest is piqued sufficiently to take some kind of action.

When choosing the location of a highway sign or a billboard that provides a telephone number for commuters to call for more information on ridesharing, it is important to remember that a person is more likely to make that call at work than at home. Also, unless the RSA has a message recorder or a coordinator who works late, calls made in the evening are likely to be missed. This situation also applies to radio announcements that provide a telephone number.

A RSA should try to obtain a telephone number that is easy to remember because most people commuting to work, especially solo drivers, will be unable to write it down. Many RSAs have used the telephone number "XXX-POOL" because it is easy to remember, but it can be dialed wrong. The number "zero" is sometimes dialed for the letter "0". The telephone number "XXX-RIDE" is also commonly used.

Nearly all RSAs have made some use of paid or donated public service announcements (PSAs) on television and radio, in addition to editorials, news, or special programs. This is generally a very expensive promotional technique, even if donated time is used, because broadcast material should be professionally prepared. The cost to prepare a 30-second television program might be in the range of \$5,000 to \$10,000, and a 30-second radio program might run from \$1,500 to \$5,000. Pre-packaged PSAs may be available, but these should be evaluated to assure they are appropriate. It is often necessary to deliver each PSA personally to each station to ensure that it gets air time. The air time they do get is seldom prime time and rarely even commuting time. Special programs, editorials, and news programs are far more desirable, but are generally hard to obtain except during transportation crises such as fuel shortages, major reconstruction, bus strikes, and the like. At such times, these opportunities should be exploited.

Next, let's distinguish between "publicity" and "paid advertising." Both involve mass media. Publicity, however, is free. It consists primarily of public service announcements, news spots, editorials, and special events such as segments on local talk shows or feature newspaper articles. The advantages of publicity over paid advertising are (a) it is free; and (b) it tends to be more credible because it is perceived as more objective. The disadvantage is that RSAs have less control over the content. Hence, RSAs must make every effort to get the media interested enough in ridesharing to promote it. These efforts will have two effects.

- o They will convince the media that ridesharing is important; and
- o They will provide opportunities to "suggest" to the media what they might say about ridesharing.

If a RSA is successful in obtaining media support (and this will take some work), the media will begin to come to it regularly in their efforts to keep the public informed about transportation issues. This "turnaround" helps to make the job easier as time goes on.

Print advertising is another interesting, usually pictorial, way to express a ridesharing message. The problem with using print ads for most RSAs is that they will not yield a strong direct action response. Also they are normally so expensive that a campaign using print advertising might not be realistic within the budget. The ideal print advertiser for ridesharing is a community sponsor.

Substantial free coverage in newspapers, particularly feature articles and editorials rather than advertisements, is possible for most RSAs. This is much less expensive than radio and TV marketing. Print marketing has some advantages. It is not time bound and will be encountered whenever the reader picks up the newspaper or other material. In addition, if it catches the readers interest, it can be borrowed or clipped and referred to later.

Still the best basic tool for marketing ridesharing to the general public is the brochure. The biggest advantage the brochure has over other mass media is the amount of information that can be put in it. There is no other good way, for example, to go through a detailed and convincing set of calculations showing the true costs of solo driving and the savings ridesharing offers than the "do-it-yourself driving cost calculator" in many brochures.

Other print advertising methods include bumper stickers; leaflets and information displays at banks, stores, and other public places; and mass mailings. These sometimes accompany utility bills or other noncommercial mass mailings. Special promotional events such as "pool parties" have sometimes been staged, primarily for their value in getting news coverage and also to provide the opportunity for a personalized approach to answering inquiries on ridesharing.

5.0 SUMMARY:

- o Marketing is an entire range of activities requiring analysis, planning, implementation, and control.
- o All ridesharing organizations should have a written market plan which is updated annually or as significant market or budget changes occur. This plan is the basis for the evaluation of products and services offered and for future funding.
- o The design of a market plan incorporates two essential elements: a program strategy and a product strategy.
 - A program strategy involves policy analysis and planning. It has six basic steps: establish program goals, define the program, state program objectives, list and describe products and services, identify target markets, and state product marketing objectives.
 - A product strategy involves market analysis and planning. It has four basic steps: assess the market situation, design marketing strategies, develop an implementation plan, and evaluate marketing results.
- o A successful employer program requires commitment, capability, procedures, coordination and diligence.
- o Advertising must be developed carefully to accomplish one or more of five communications objectives: increase awareness, create interest, increase the rate of commuter inquiry, increase the product trial, and reinforce regular use of the mode.
- o Advantages of advertising are quick results, high visibility, and increased public acceptance of ridesharing. Disadvantages are that it cannot tightly differentiate its market, those reached exhibit diverse origins and destinations, and public marketing can come at a prohibitively high cost.
- o Radio, TV, newspapers, and billboards are the most often used media. Radio and billboards are the most effective media to use for ridesharing.
- o Publicity is cheaper and more credible than paid advertising because it is perceived as more objective, but it does require more effort because RSAs have less control over the content.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 5

RIDESHARING DURING MAJOR HIGHWAY RECONSTRUCTION



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INTRODUCTION TO RIDESHARING

A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 5

RIDESHARING DURING MAJOR HIGHWAY RECONSTRUCTION

1.0 OBJECTIVE

Transportation systems management (TSM) strategies, including ridesharing, are being used in a number of cities around the country to alleviate traffic congestion in transportation corridors where major reconstruction activities are underway. This module discusses the role these strategies are playing, particularly the ridesharing and ridesharing related strategies.

2.0 KEY REFERENCES

- o Traffic Management During Major Urban Highway Reconstruction, Compendium of Technical Papers, Institute of Transportation Engineers, S.G. Strickland and C.P. Scott, August 1987.

3.0 DEFINITIONS

You will frequently run across the following terms in this module.

- o Transportation System Management (TSM)--a program to provide low-cost, easily implementable, transportation improvements or actions that reduce traffic congestion and/or increase the capacity of highways.

4.0 RIDESHARING DURING MAJOR HIGHWAY RECONSTRUCTION

4.1 Introduction

During the mid 1970's we began to realize our Interstate

highways were wearing out or were soon going to wear out. This was alarming at first because the Interstate System wasn't even finished. Upon reflection, however, it was realized that it was time for many of the earlier built and/or heavily used highways to wear out.

Congress authorized work to designate a 40,000 mile Interstate System (later increased to 42,500 miles) in 1944. The intent, as it finally evolved, was to provide a connected network of freeways designed to the latest and safest standards and to meet anticipated traffic needs 20 years into the future. Many years of study followed the 1944 authorization during which time a few Interstate highways were constructed using Federal-aid Primary or Urban System funds. In 1952, \$25 million were authorized for Interstate construction for each of two years. In 1954, \$175 million were authorized for each of fiscal years 1956 and 1957. It was not until 1956, however, that the Interstate program began to accelerate to its present prominence. The Federal-aid Highway Act of 1956 added \$1-billion to the 1957 authorization and made sufficient additional authorizations available for subsequent years to finance the System's estimated completion by 1972. The late 1950's and the 1960's were years of aggressive highway construction, not only interstate highways, but also other major freeway type facilities.

By the mid 1970's, as many of the earlier built highways reached or approached their 20 year service lives, they began to wear out. To compound the problem, enormously heavy traffic volumes, including greater numbers of heavy trucks than ever imagined, were reducing the service lives of many highways to less, sometimes much less, than 20 years.

Reacting to the problem of deteriorating highways, Congress redefined the term "construction" in the Federal-aid Highway Act of 1976 to include resurfacing, restoration, and rehabilitation (the 3Rs) and made a small amount of money available for these activities. The Federal-aid Highway Act of 1981 greatly expanded the definition by adding a fourth R, reconstruction, and made large sums of money available for the work. The Surface Transportation Assistance Act (STAA) of 1982 authorized \$1.95 billion for fiscal year 1984 with the amount increasing each year to \$3.15 billion in fiscal year 1987. As a result, the Interstate 4R Program is now the second largest Federal-aid highway program. In addition, the STAA of 1982 required that at least 40 percent of the Primary, Secondary, and Urban System funds be used for 4R type activities. All this reflects a changing emphasis in the Federal-aid highway program. Initially, the

emphasis was on new construction. Now, it is on preserving what we already have by means of resurfacing, restoring, and rehabilitating, or if that is not enough, reconstructing.

There are many problems associated with preservation and reconstruction activities, of which traffic management may be foremost. Unlike most new construction which takes place on new locations, preservation and reconstruction activities impact existing facilities, not only within the project limits but often within entire transportation corridors. Often, particularly in urban and suburban areas, these transportation corridors are already heavily congested. A recent Federal Highway Administration (FHWA) report to Congress indicated that urban freeway travel is expected to grow by nearly 49 percent by the year 2005. During this time, hours of delay, gallons of wasted fuel, and user costs, which are already excessive, are expected to increase more than 400 percent.

Hence, as efforts to preserve and reconstruct heavily congested highways are accelerated, highway professionals are faced with a monumental challenge, that of moving people through and around work zone areas in a timely manner.

4.2 TSM Strategies

Efforts to manage traffic during urban highway reconstruction, rather than just deal with whatever might occur, were employed in Chicago in 1978 during reconstruction of the Edens Expressway (I-94). What was an innovative move at the time, but has since been employed in conjunction with many urban highway reconstruction projects, was the establishment of a task force to assist in the development of a traffic control plan. The task force consisted of representatives from many divisions within the Illinois Department of Transportation. Meetings were held with representatives from other affected agencies. From these meetings came several innovative suggestions that were incorporated into the project, such as special highway signing and radio informational alerts. It was concluded when the project was completed that planning and implementation of the overall traffic program prevented predicted traffic chaos from occurring.

A few years later, in Pittsburgh, during reconstruction of the Parkway East (I-376), a model effort was undertaken to move people rather than vehicles. With support from the FHWA, on an experimental basis, the

Pennsylvania Department of Transportation effectively managed traffic demand through comprehensive advance planning, public involvement, public information, and a series of innovative strategies including traffic engineering and operational improvements on alternate routes, ridesharing, and various ridesharing incentives. The result, as one newspaper reporter wrote, "They held a traffic jam here today--and nobody came."

In recent years a number of cities have built upon the Chicago and Pittsburgh experiences. TSM strategies that have been used include the following:

- o Public Information and Relations
 - Public Involvement (Task Forces, Meetings, Etc.).
 - Public Awareness (Media Campaigns, Brochures, Signs, Etc.).

- o Traffic Control in Work Zones
 - Standard Traffic Control Devices and Practices As Set Forth in Part VI of the Manual on Uniform Traffic Control Devices (MUTCD).
 - Incident Detection and Management (Surveillance, Police Assistance, Tow Trucks, Etc.).
 - Reversible Lanes.
 - Ramp Metering.
 - Changeable Message Signs.
 - Glare Screens or Other Devices to Shield Work Activities.

- o Traffic Engineering and Operational Improvements on Alternate Routes
 - Physical Improvements (Turn Lanes, Channelization, Etc.).
 - Traffic Control Signalization (Timing, Coordination, Etc.)
 - Traffic Control Officers

- o Ridesharing
 - Carpools and Vanpools
 - Buses

- o Ridesharing Incentives
 - High Occupancy Vehicle (HOV) Lanes and Ramps.
 - Park-and-Ride Lots.
 - Preferential Parking.

- o Contract Items
 - Incentives/Disincentives.
 - Scheduling.
 - Nighttime and Off-Peak Hours.

4.3 Public Information And Relations

Involvement and awareness are essential elements of successful TSM programs. Efforts should be made to involve representatives from highway agencies, police agencies, municipal governments, legislative delegations, the business community, metropolitan planning commissions, automobile clubs, trucking associations, ridesharing agencies, transit authorities, and any other interested parties. The result of all this involvement is up-front support for finalized projects. Efforts should also be made to inform the public as to the need for the reconstruction, anticipated problems, and proposed solutions, including actions the public might take to help alleviate the problems. This can be done through public meetings, media campaigns, brochures, slide presentations, posters, highway signs, hot-line telephone numbers, and other means.

The Michigan Department of Transportation, in a model effort, is spending \$610,000 for community liaison and public information activities in conjunction with reconstruction of the Lodge Freeway (US-10) in Detroit. This effort includes employment of a full-time public relations expert, daily contacts with media representatives, presentations to community groups, meetings with community leaders, public service announcements, posters, brochures, a 24-hour traffic information hotline, and even an ombudsman to work with community organizations and individuals on problems perceived to have been caused by the reconstruction.

4.4 Traffic Control In Work Zones

Much can be done in work zones to reduce congestion. For starters, traffic control devices should be planned, designed, and installed in accordance with the MUTCD. Improperly utilized signs, markings, and channelizing devices often confuse motorists, which in turn leads to slow downs, erratic maneuvers, and accidents.

Incident detection and management activities can also be very helpful in reducing congestion. Breakdowns and accidents in work zones are significant events which result in delays. Procedures to swiftly detect incidents and remove disabled vehicles should be established. A project site communications center was established in Boston in conjunction with reconstruction of the Southeast Expressway (I-93) to coordinate work zone activities. Police personnel and tow trucks were also available around the clock to control traffic and remove disabled vehicles. Similar police and/or tow truck

arrangements were provided in Detroit and also in conjunction with reconstruction in Des Moines (MacVicar Freeway, I-235), Washington (I-95), Philadelphia (Schuylkill Expressway, I-76), Phoenix (I-17), and Syracuse (I-81).

The use of reversible express lanes during peak hours was found to be an effective means of minimizing travel disruption in Boston and New York (East River Bridges). Ramps leading into work zones have been closed in a number of cities in an effort to restrict local access for trips which might as easily be made using local streets. Ramp metering was used in Detroit during peak periods. The ramp meters were tied into a surveillance system which surveys traffic throughout Detroit's freeway system. Brochures were distributed to motorists explaining how to use the ramp meters and why they are so effective. Special signs, including changeable message signs, have been placed in advance of work zones in a number of cities to provide information relative to conditions in the work zone. Glare screens were used in Boston and other cities to prevent motorist distractions.

4.5 Improvements On Alternate Routes

Many motorists, when confronted with traffic congestion on their route of choice, look for alternate routes to and from their destinations. This approach is often successful. It has often proved to be successful in conjunction with major highway reconstruction, particularly when motorists are informed of good alternate routes via aggressive media efforts and when traffic engineering and operational improvements are provided on the alternate routes.

Traffic engineering improvements consist of physical changes to the roadway to improve capacity. Intersections were widened in Pittsburgh. Signs, pavement markings, and/or channelization were provided in Boston, New York, Minneapolis (I-394), and Pittsburgh. Alternate routes were resurfaced in Detroit and Hartford (I-91). Pavement and shoulder widening improvements were made in Minneapolis and New York. Turning lanes were added at intersections in Philadelphia and Phoenix. Parking restrictions were established in Chicago (Lake Shore Drive), Philadelphia, and Pittsburgh.

Traffic operational improvements consist primarily of enhancements to traffic control signals, such as improved timing or coordination of signals. Such improvements were made on alternate routes in conjunction with reconstruction projects in Boston, Chicago, Detroit,

Hartford, Minneapolis, New York, Philadelphia, Phoenix, Pittsburgh, Seattle (Ship Canal Bridge), and Syracuse.

Police officers were used to control traffic at critical alternate route intersections in Boston, Chicago, New York, Philadelphia, Pittsburgh, and Syracuse. In addition, school crossing guards were utilized in Philadelphia.

4.6 Ridesharing

Carpools, vanpools, and buses provide an alternative to driving alone and have the potential to move many people during major urban highway reconstruction. Ridesharing agencies exist in all major cities. There are about 250 around the country. Their purpose is to help commuters utilize existing highways more efficiently. Carpool and vanpool activities can be initiated very inexpensively. Bus activities are more expensive but can be cost-effective if carefully planned and utilized where demands exist.

Ridesharing agencies have played a key role in many recent reconstruction projects. Personnel from these agencies have participated in the planning process and have played a major role in encouraging large employers to promote not only ridesharing, but also flexible working hours.

During the Pittsburgh reconstruction, a third-party coordinator was hired to organize vanpools in the Parkway East corridor. This included the promotion, marketing, and organization of vanpools, as well as the arrangement of leasing and maintenance agreements. Ridesharing did not make a major impact during the Pittsburgh reconstruction due to the success of other strategies in providing sufficient capacity. It was considered to have been worthwhile, however, because it provided several attractive alternatives for motorists to choose from. Also, many of the vanpools and a few of the better utilized bus routes remained in existence after the reconstruction.

In Minneapolis, carpooling and vanpooling, expanded bus service, HOV lanes, park-and-ride lots, and a number of other traffic management strategies are being used in conjunction with the construction of I-394 virtually on top of an existing arterial route leading to the downtown area. While construction is underway, the local ridesharing agency, Minnesota Rideshare, is providing expanded services in the corridor with emphasis on an employer outreach program, computerized matching

services, and a classified ads newsletter. By the year 2005, half the users of Minneapolis' I-394 are expected to be riding buses or using carpools and vanpools.

In Detroit, The Southeast Michigan Council of Governments' ridesharing program, RideShare, has expanded its activities, particularly its employer outreach program, in conjunction with reconstruction of the Lodge Freeway. Their activities are expected to be essential to the planned reconstruction of other freeways in the Detroit area.

There are many other examples of expanded, and even new, ridesharing activities in conjunction with major highway reconstruction.

Reconstruction has provided many new opportunities for ridesharing agencies. In addition to the activities already discussed, (a) local ridesharing agencies have become involved in beneficial dialog with State highway officials, (b) Federal-aid highway construction funds have participated in new and expanded ridesharing programs within affected corridors, and (c) ridesharing has been heavily promoted in aggressive media campaigns as an important means of reducing congestion.

To take full advantage of ridesharing opportunities during major highway reconstruction, ridesharing coordinators must:

- o Stay aware of planned reconstruction activities in their areas.
- o Get involved in reconstruction activities during the early planning stages. This may be done by offering assistance and/or requesting to be involved.
- o Evaluating ongoing and completed ridesharing activities during the reconstruction. This is essential. Even small successes should be documented and publicized.

4.7 Ridesharing Incentives

Motorists are generally reluctant to give up the comfort of driving their own cars. But under the right conditions many will. The prospect of long delays in work zones, or even on alternate routes, can cause many to consider other modes of transportation. If these other modes can provide savings in time, money, or other considerations, they can be very attractive. In order to

provide incentives to ridesharing, HOV bypass ramps were utilized in Phoenix, Pittsburgh, and Seattle. These ramps provided ready access to the mainline route; whereas, single occupant vehicles were prohibited entirely or required to wait in long lines. Safe, convenient park-and-ride lots were provided in Boston, Minneapolis, New Jersey (I-80), Philadelphia, Phoenix, Pittsburgh, and Syracuse. These lots were capable of being serviced by buses and were centrally located to best serve commuters who wanted to rideshare. In many cities, major employers were urged to provide preferential parking in their lots for employees who were riding together. The whole concept of ridesharing was widely publicized in Detroit, Phoenix, Boston, Pittsburgh, and most other cities.

4.8 Contract Items

Some congestion reducing strategies can be included in contracts. In an attempt to speed up the work and get completed projects open to traffic, incentive and disincentive clauses were placed in reconstruction contracts in Boston, Des Moines, New Jersey, Seattle, Washington, and other places. In nearly every documented instance the contractor finished early. In fact, some cities have had to place caps on the amounts of incentives to be paid and others have been forced to take a closer look at the methods used for estimating working days needed to complete a project. Scheduling and/or phasing of work has been used for many years but has become more critical in relation to major urban reconstruction. Off-peak work has also been specified in contracts for some time to avoid tying up traffic during the peak hours, but the peaks on Washington's, D.C. Wilson Bridge (I-95) were so long it became necessary to perform the work at night and keep all lanes open during the day. Consultants were retained in Philadelphia and Washington to review design and traffic control plans from an operational standpoint.

5.0 SUMMARY

Carefully planned and implemented TSM strategies have been used in a number of cities during major urban highway reconstruction. These strategies have been successful in moving people through and around work zones. Capacity has been increased, traffic operations have been improved, and demands have been reduced on many highways and streets in affected corridors, not only during the reconstruction but often afterwards as well.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 6

MODEL RIDESHARING LAWS AND CODE



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 6

MODEL RIDESHARING LAWS AND CODE

1.0 OBJECTIVE

The Federal Highway Administration (FHWA) contracted in the late 1970's and early 1980's for the development of two model ridesharing laws and a model parking code. The purpose of these documents was to encourage people to rideshare. It was hoped that (a) States would use the model laws as a starting point for developing their own ridesharing legislation, and that (b) urban jurisdictions would include the model code into their zoning ordinances. In many instances these desires were fulfilled. The purpose of this module is to describe the model laws and code and the roles they played in encouraging people to share rides to work.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, Chapter 7, NCHRP Report 241, Transportation Research Board, December 1981.
- o Model State Law to Remove Legal Impediments to Ridesharing Arrangements, National Committee on Uniform Traffic Laws and Ordinances, September 1979.
- o Legal Impediments to Ridesharing Arrangements, National Committee on Uniform Traffic Laws and Ordinances, December 1979.
- o Legal Impediments to Ridesharing Arrangements -- An Update, National Committee on Uniform Traffic Laws and Ordinances, February 1981.

- o Model State Ridesharing Incentives Law, National Committee on Uniform Traffic Laws and Ordinances, June 1982.
- o Model Parking Code Provisions to Encourage Ridesharing and Transit Use (Including A Review of Experience), JHK & Associates, September 1983.

3.0 DEFINITIONS

You may find the following definitions to be helpful.

- o Model Law--a sample law which (a) can be used as a guide by State legislators, and (b) is normally developed by Federal, State, and local government, private industry, and other individuals interested in achieving sound, uniform laws to address emerging ideas or problems.
- o Model Code--a sample code, similar to a model law, but for use by local officials dealing with urban ordinances.

4.0 MODEL LAWS AND CODE

4.1. Introduction

The National Committee on Uniform Traffic Laws and Ordinances, under contract to FHWA, has developed two model ridesharing laws. Both laws have the input from many agencies and organizations around the country.

The first model law, Model State Law to Remove Legal Impediments to Ridesharing Arrangements, was introduced to the States in 1979. The purpose of this model law is to remove unnecessary legal obstacles for people who want to share rides to work.

The second model law, Model State Ridesharing Incentives Law, was introduced to the States in 1982. The purpose of this model law is to encourage people to rideshare.

Most States have used these models as a starting point for developing their own ridesharing legislation, selecting those provisions which were helpful and discarding those which were irrelevant.

JHK & Associates, under contract to FHWA, has developed a model parking code. This model parking code, Model Parking Code Provisions to Encourage Ridesharing and Transit Use, was introduced in 1983. Its purpose is to

describe and present model local parking code provisions designed to reduce parking requirements and promote the use of public transit and ridesharing.

4.2 Model State Law To Remove Legal Impediments To Ridesharing Arrangements

4.2.1 Purpose Of Model Law

People who want to rideshare, especially those who want to form vanpools, often face conflicting and outdated State and local regulations that are inconsistent and impede ridesharing arrangements.

The National Committee on Uniform Traffic Laws and Ordinances, under contract to FHWA, has produced three documents on this subject:

- o Model State Law to Remove Legal Impediments to Ridesharing Arrangements, September 1979.
- o Legal Impediments to Ridesharing Arrangements, December 1979.
- o Legal Impediments to Ridesharing Arrangements--An Update, February 1981.

The purpose of the model law is to serve as a guide that State legislatures can use for changing laws that unreasonably restrict forming carpools and vanpools.

Co-documents to this are the Legal Impediments to Ridesharing Arrangements reports that identify State laws that may impede ridesharing arrangements.

At least 35 States have passed legislation based on the model law to exempt ridesharing arrangements from regulation as motor carriers.

4.2.2 Description Of The Sections

The model law contains 9 sections:

Section 1 - Definition of Ridesharing

In this section a ridesharing arrangement is defined as the transportation of persons in a motor vehicle where such transportation is incidental to another purpose of the driver. These arrangements include carpools, vanpools, and buspools.

Section 2 - Motor Carrier Laws

This section states that motor carrier laws and regulations do not apply to ridesharing. The laws and regulations being referred to are those pertaining to: insurance requirements, laws imposing a greater care on motor carriers than that imposed on other drivers of motor vehicles, equipment requirements, and taxes on fuel.

Section 3 - Workmen's Compensation Laws

Workmen's compensation does not apply to a person injured while participating in a ridesharing arrangement between his or her place of residence and place of employment, if the employer owns, leases, or contracts for the vehicle used in such an arrangement.

Section 4 - Liability of Employer

This section explains the two conditions of an employer's liability:

- An employer shall not be liable for injuries to passengers and other persons resulting from the operation or use of motor vehicles not owned, leased, or contracted for by the employer in a ridesharing arrangement.
- An employer shall not be liable for injuries to passengers and other persons because he/she provides information, incentives, or otherwise encourages employees to participate in ridesharing arrangements.

Section 5 - Income Taxes

In the law, money and other benefits, other than salary received by the driver in a ridesharing arrangement using a motor vehicle with a seating capacity for not more than 15 persons, including the driver, shall not constitute income for the purpose of imposing taxes on income. (This eliminates the need for keeping records in smaller ridesharing arrangements).

Section 6 - Municipal Licenses and Taxes

This section states that no county, city, town, or other municipal corporation may impose a tax on or require a license for a ridesharing arrangement using a motor vehicle with a seating capacity for not more than 15 persons, including the driver.

Section 7 - Overtime and Minimum Wage Laws

The mere fact that an employee participates in any kind of ridesharing arrangement shall not result in the application of laws requiring payment of a minimum wage, overtime pay, or otherwise regulating the hours a person may work. (Commute time is not to be considered as part of the work day, even if the employer owns the vehicles).

Section 8 - Buses and State Vehicle Codes

This section states that motor vehicles used in a ridesharing arrangement that has a seating capacity for not more than 15 persons, including the driver, shall not be considered a bus or commercial vehicle under the laws relating to equipment requirements, rules of the road, or vehicle registration.

This section further states that the driver of a passenger car (seating capacity for not more than 10 persons, including the driver) used in a ridesharing arrangement is not a "chauffeur" nor is he/she transporting persons for compensation under the driver licensing section of the State vehicle code.

Section 9 - Use of Public Vehicles

Motor vehicles owned or operated by any State or local agency may be used in ridesharing arrangements for public employees. Anyone that participates in such an arrangement shall pay the actual total costs of using the vehicles.

4.3 Model State Ridesharing Incentives Law

4.3.1 Purpose Of Model Law

Since most workers commute to work in motor vehicles occupied by only one person, there are valid reasons for society to encourage sharing rides to work:

- o More efficient use of congested streets and highways.
- o Fuel conservation.
- o Air quality improvement.
- o Less land required for parking.

The purpose of this model law is to provide incentives

for commuters to use ridesharing arrangements. The appendix to the model law suggests that States may also wish to provide similar incentives for people who bicycle, jog, or motorcycle to work.

This model law presents a minimum governmental program to facilitate commuting to work other than by means of a motor vehicle occupied by one person. The emphasis is placed on tax and other incentives to encourage and reward people who use an alternative means of commuting.

4.3.2 Description Of The Articles

The model incentives law is composed of 13 articles:

Article I - Findings and Declaration of Policy

The Findings evolved from the examination of State laws and ridesharing research to gather all possible incentives for ridesharing. The Declaration of Policy is a simple statement encouraging commuting to and from work by means other than a motor vehicle occupied by one person. This declaration can be lifted straight from the model law and placed in a State's law.

Article II - Definitions

This section defines words and phrases used in the model law. Two of the more important definitions include:

- Ridesharing arrangement. -- Transportation of persons in a motor vehicle where such transportation is incidental to another purpose of the driver. The term shall include ridesharing arrangements known as carpools, vanpools, and buspools.
- Alternate means of commuting. -- Travel between a person's place of residence and place of employment, or termini near those places, other than in a car, van or pickup truck occupied by one person.

Article III - State Ridesharing Program

This section stresses the importance of a State Ridesharing Program.

The primary focus of the State ridesharing program should be to encourage, and cooperate with, local agencies in establishing and implementing programs to

enable participation of the public in alternate means of commuting and ridesharing arrangements.

The State Ridesharing Program which would be established by the Secretary of Transportation should:

- o Provide information about ridesharing.
- o Assist State and local agencies, employers, and citizens in developing and implementing projects.
- o Administer Federal and State ridesharing programs.
- o Develop standards to measure progress toward reducing the number of people who drive alone to work in a car.

The Secretary of Transportation (or other appropriate State official) may find it helpful to appoint a Task Force to provide advice on ways to improve State and local ridesharing programs as well as to identify problems and propose their solutions.

Article IV - Ridesharing Program for State Employees

This section encourages every department, agency, board or commission in a State to promote and encourage alternate means of commuting. The contents of such a program may include:

- o Providing ridesharing information.
- o Providing matching services.
- o Providing administrative and support services for a ridesharing program.
- o Providing preferential parking for ridesharing vehicles.
- o Providing for the altering of employee work hours for ridesharing.
- o Providing reasonable incentives to encourage ridesharing and other alternate means of commuting.

State employees who park on property that is owned, leased, or controlled by the State shall pay the prevailing local commercial rate or the actual cost of the space, whichever is less (government vehicles exempted).

The Department of General Services (or other appropriate State agency) will acquire the buses and vans used in a State employee program.

Article V - Local Ridesharing Program

The purpose of this section is to provide ridesharing and other alternate commuting programs in urbanized areas where there is substantial traffic congestion, concerns about air quality, or unique commuting situations.

Local program contents are similar to a State program. Some responsibilities includes:

- o Providing information.
- o Administering State and federally funded ridesharing programs.
- o Providing matching services.
- o Encouraging city and county employees to rideshare or use alternate means of commuting.
- o Working with local transit agencies to increase the use of ridesharing arrangements and mass transit.

In addition to adopting and implementing a ridesharing program, every city and county is also authorized to:

- o Reduce the number of parking spaces required under zoning and subdivision codes.
- o Establish park and ride lots on public or private property.
- o Prohibit or restrict parking on all or certain streets by commuters, or reserve parking on streets for ridesharing vehicles.

Article VI - Ridesharing Programs for Private Employers

This article provides the simple statement that all employers in the State should encourage their employees to rideshare. It also discusses which employers' costs are deductible tax credits. Some deductible items include the costs of promoting, organizing, administering, subsidizing, or operating a ridesharing program. Also an employer can depreciate any ridesharing vehicle acquired or leased as part of

an employee ridesharing program over a 3 year period. In addition, an employer can have a tax credit of 20 percent of the acquisition or lease cost against income taxes owed to the State in the year the vehicle was bought or leased.

Article VII - Ridesharing Tax Incentives for Commuters

This section discusses deductions from gross income (or from adjusted income). Any person who uses an alternate means of commuting may deduct:

- o Any fare paid to mass transit as part of commuting to or from work, provided the payment was for a multiride pass.
- o Any amount paid to participate in a commuter ridesharing arrangement using a bus, car, or van.

In regard to vans, if a person owns or leases a van or bus used for ridesharing he/she may deduct the acquisition cost, amortized over 3 years, or the cost of leasing it. A person may also reduce the taxes owed to the State by an amount equal to 20 percent of the taxes owed or by 20 percent of the cost of acquisition or leasing of a vanpool vehicle, whichever is less.

A transportation allowance or subsidy paid by an employer to encourage alternate means of commuting will not be considered taxable income to an employee.

Article VIII -- Special Tax Incentives

This section states that you do not have to pay a sales, excise, or title tax to the State if you buy or lease a van or bus to be used in a commuter ridesharing arrangement. Also the annual registration fee for any van used for ridesharing will be one half of the amount normally charged.

Article IX - Fuel Allocation

If we have another energy crunch and a fuel allocation plan is implemented, ridesharers will certainly benefit. Motor vehicles used in ridesharing arrangements will have priority over privately-owned cars, vans, and other vehicles that are not used in ridesharing arrangements.

Article X - Banks and Other Lending Institutions

In this article any bank, credit union, savings and loan, or other lending institution which loans money for the acquisition of vans used in a ridesharing arrangement may reduce the taxes owed to the State by a certain amount per loan provided it is a 100 percent loan with 5 years to pay back and the interest rate is below new car rates.

Article XI - Insurers

This article requires insurers of cars to notify policyholders of savings in annual insurance premiums that would result from (a) not using their cars to commute to work or (b) reducing the number of miles their cars are used to commute to and from work.

Article XII - Operational Considerations

Traffic control signals used at intersections and ramps may give preference to buses and high occupancy vehicles used in ridesharing arrangements.

This article also states that every agency having toll facilities where drivers have to stop to pay tolls has to implement a system to enable allocation of the toll without requiring the driver of the van or bus to stop. These agencies also have to do away with or reduce the tolls paid by buses and vans used for ridesharing. Consideration should also be given to reducing tolls for carpools.

Article XIII - Park and Ride Lots

This article would allow State and local agencies to acquire, by lease, purchase or exercise of the right of eminent domain, land for parking vehicles so their occupants can utilize an alternate means of commuting. This section does not give the right of eminent domain to any agency that does not already possess that right. It only indicates the right can be exercised to acquire land for park and ride lots.

Appendix - Other Alternate Means of Commuting

States should consider including people who commute to work by walking, jogging, bicycling, or motorcycling in laws encouraging people to cease driving alone in cars, vans or pickup trucks. The reason for this is because:

- o These methods are fuel efficient.

- o Inclusion of these modes will increase support for adoption of the incentives.
- o There is a precedent for their inclusion in ridesharing programs.
- o These commuters deserve to share in any tax incentives given to ridesharers.

It should, of course, be noted that these means of commuting are included in the definition of "alternate means of commuting" in Article II so that some of the benefits of this Model Law would be available to cyclists and walkers.

However, if a State wishes to include cyclists and walkers in the incentives parts of their laws, appropriate subsections could be added to (a) Article VI, "Ridesharing Programs for Private Employers," such as a special tax credit given to employers for showers, lockers, and bicycle parking, and/or to Article VII, "Ridesharing Tax Incentives for Commuters," such as a deduction of expenses by cyclists and walkers from income taxes.

4.4 Model Parking Code Provisions

4.4.1 Purpose Of Model Code

Parking requirements in local zoning ordinances have been developed over the years primarily to ensure that adequate parking is provided off public streets. This reflects local goals of enhancing access, improving traffic circulation, and preventing neighborhood parking problems and other potential traffic-related nuisances.

It is estimated that 95 percent of U.S. jurisdictions have minimum parking requirements in their zoning ordinances. Although it is still recognized that some minimum form of parking requirements is usually necessary, several localities have implemented options in their parking codes which allow reductions in parking when certain incentives are employed which encourage commuting in modes other than single occupant automobiles. Techniques to do this, such as carpooling, vanpooling, and public transit, are often referred to as transportation system management (TSM) actions. The term TSM has become a well-recognized transportation acronym for low-cost, rapidly implementable methods to relieve urban congestion and improve traffic flow. The term is used in the model code to indicate the specific types of transportation actions which the code is designed to encourage.

To date, major U.S. cities such as Sacramento and Dallas, have permitted reduced parking requirements for developer-provided TSM actions. Other locations such as Seattle and San Francisco mandate privately-sponsored ridesharing measures, while smaller, growing jurisdictions like Schaumburg, Illinois and Placer County, California have recently enacted ordinances that employ this approach. Typically, these incentives have permitted reductions in the amount of parking required for new development when the landowner, developer or employer make certain TSM commitments.

The enactment of TSM provisions into the local parking code could be expected to have significant benefits for both the private and public sectors. Some of these are:

- o Benefits to the private sector:
 - Reduced cost for parking construction. (Approximately \$1,000 per space for surface parking, \$5,000 per space for structured parking above grade, and \$10,000 or more per space for underground parking, not including land costs.)
 - Less land used for parking, thus leaving more land for development or open space.
 - Increased attractiveness of development locations with decreased congestion and more reliable site access.
- o Benefits to the public sector:
 - Reduced auto travel to participating sites. (This helps extend the person-carrying capacity of existing streets and highways, possibly reducing the need for expensive road improvements, reducing energy consumption and improving air quality.)
 - More development can be accommodated in the same land area without any additional traffic impact. (Usually, at least 10 percent more floor area can be accommodated without any additional traffic beyond what would occur without TSM actions being employed.)

4.4.2 Description Of The Articles

The model parking code is composed of 6 articles:

Article I - Findings and Purposes

This section sets forth the reasons for enactment of the ordinance. Should any legal test of the validity of ordinance provisions occur, this section is crucial in guiding judicial interpretation.

Article II - Definitions

This article contains a glossary of key terminology.

Article III - Parking Requirements Reduction Alternatives

The types of TSM actions which can be used, as well as the associated parking reductions are contained in this article. There are three alternative approaches offered:

- o Basic Incentives Option - permits a relatively small reduction in parking (10%) for landowners or employers providing several basic TSM incentives (primarily ridesharing related). The 10 percent allowable reduction is based on the typical effectiveness of small to moderate scale employer-based ridesharing and transit promotion efforts.
- o Trust Fund Option - permits a larger reduction in parking (15%) for a landowner who makes a one-time monetary contribution to a TSM trust fund. The trust fund would be administered by the public agency and used to implement TSM actions at participating sites. This approach still requires employer participation and cooperation, but the more time-consuming tasks (e.g., contacting individual employees, setting up vanpooling programs, coordinating surveys) are borne by personnel from the public agency. Public agency staff time is fully or partially financed from the trust fund.

The 15 percent parking reduction is slightly higher than the 10 percent reduction allowed for the incentives option approach because the public agency has more control over the type and operation of ridesharing and transit incentives employed and has additional funds to implement them. The public agency may also be able to more effectively implement certain actions than some developers, landowners or employers. A jurisdiction may wish to alter this reduction level in accordance with its own objectives.

- o Performance Standard Option - permits a larger reduction (30%) when a landowner commits to a transportation management program with more comprehensive TSM actions. Parking reductions are commensurate with expected increases in transit ridership and auto occupancy. The landowner is required to submit a Transportation Management Plan, specifying the techniques to be used and how that justifies the reduction in parking requested.

The maximum 30 percent reduction is based on the success of a growing number of employers in inducing their employees to rideshare or take public transit. Although higher reductions have been achieved (occasionally 50 percent or more), the reduction was held to 30 percent in recognition of the greater possibility of not sustaining such a reduction over the long term or when property is sold. Again, jurisdictions may make their own selection of parking reduction levels. In essence, the selection of any pertinent reduction is a policy decision, with lower percentages usually selected where it is desired to minimize the risk of parking shortages while sacrificing some of the code's potential attractiveness through more significant parking space savings.

The three options above embody the three basic approaches to TSM-related parking provisions that have been developed to date. They are written as options that landowners may select and are not mandatory. The model code is written in such a way that a jurisdiction could offer all three options, but if it preferred to offer only one or two, the other options could be dropped from the code.

Article IV - Administration

This article summarizes how key enforcement and monitoring responsibilities are allocated. Generally, the parking provisions will be administered and enforced by branches of the public agency normally charged with administration and enforcement of the zoning ordinance. Special assistance will usually be needed from transportation staff.

Enforcement is a major issue in the establishment of the code. The model parking code requires, for all options, the execution of a contract between the landowner and the responsible public agency specifying the commitments of each party. Jurisdictions may want

to negotiate their own penalties for breach of contract (such as a monthly dollar amount for liquidated damages), but care should be taken in setting penalties so as not to completely discourage landowners from initiating a TSM program.

For the performance standard option only, additional guarantees are recommended: execution of a performance bond, or contingency planning for additional parking spaces. A jurisdiction may elect to choose one of the two for exclusive use, allow the landowner to choose which one will apply, or develop some other method which the jurisdiction finds more feasible. Determination of non-compliance would be the responsibility of a designated person or department within the public agency. If the landowner should default on the performance bond, the money would be available to mitigate any adverse impacts resulting by constructing additional spaces nearby, initiating a residential parking permit program, purchasing transit passes, leasing vans, or other measures.

Article V - Interpretation

This article sets forth procedures for rulings where there is any ambiguity or dispute concerning the interpretation of articles in the code.

Article VI - Non-Compliance

This article sets forth provisions for the authority to make a determination of non-compliance.

5.0 SUMMARY

The Federal Highway Administration (FHWA) contracted in the late 1970's and early 1980's for the development of two model ridesharing laws and a model parking code.

They were: Model State Law To Remove Legal Impediments To Ridesharing Arrangements, Model State Ridesharing Incentives Law, and Model Parking Code Provisions to Encourage Ridesharing and Transit Use.

The purpose of these documents was to encourage people to rideshare. It was hoped that (a) States would use the model laws as a starting point for developing their own ridesharing legislation, and that (b) urban jurisdictions would include the model code into their zoning ordinances. In many instances these desires have been fulfilled.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 7

FUNDING



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 7

FUNDING

1.0 OBJECTIVE

Now that we have covered some of the major activities of a ridesharing agency (RSA), let's look at possible sources of support for them. Support can come in several forms, such as money, loaned personnel, donated services or equipment, endorsements, or indirect ridesharing incentives, such as high occupancy vehicle lanes or park-and-ride lots. The primary form of support, however, is money. The major sources of financial support for RSAs are Federal, State, and local agencies. Most RSAs are part of a local or State government and are funded largely by their parent agency, though often in part with funds from a higher level of government. Even many non-government RSAs derive most of their funding from government agencies. This module discusses possible sources of funds for ridesharing programs and sets forth processes for obtaining these funds.

2.0 KEY REFERENCES

- o Guidelines for Using Vanpools and Carpools as a TSM Technique, Section 4.5, NCHRP Report 241, Transportation Research Board, December 1981.
- o Federal-aid Highway Construction Funds for Ridesharing, Prepared by Paul Scott, Federal Highway Administration, September 1987.

3.0 DEFINITIONS

The following definitions may be helpful in understanding sources of funds and processes for obtaining them.

- o State--any one of the 50 States, the District of Columbia, or Puerto Rico.
- o Federal-aid Highway Program--a federally assisted, State-administered program that operates through the distribution of Federal funds to the States to construct and improve urban and rural highway systems. The \$15-billion per year program is administered by the FHWA.
- o Federal-aid Systems--designated routes upon which Federal funds may be used. There are four such systems--the Interstate, Primary, Secondary, and Urban Systems.
- o Federal-aid Interstate System--a 42,500 mile network of freeways, in both rural and urban areas, connecting most of the Nation's cities of 50,000 or more population, serving the needs of national defense, and connecting at suitable border points with key Canadian and Mexican highways. Interstate freeways have divided roadways normally with wide medians separating opposing lanes of traffic. Traffic lanes are 12 feet wide. They have no traffic lights or stop signs, no intersections at grade, and no sharp curves or steep grades. Access and egress are completely controlled.
- o Federal-aid Primary System--a 300,000 mile network of rural arterial routes and their urban extensions whose function is mainly to move large numbers of persons and vehicles quickly from one place to another.
- o Federal-aid Secondary System--a 400,000 mile network of the more important intracounty routes.
- o Federal-aid Urban System--a 129,000 mile network of important roads in cities with 5,000 or more population to serve local urban transportation needs.
- o State Funds--funds raised under the authority of a State or any political or other subdivision thereof, and made available for expenditure under the direct control of the State highway agency.

4.0 FUNDING

4.1 Introduction

Urban traffic congestion has become a major problem in the United States. In an effort to somehow reduce the congestion on our streets and highways, transportation system management (TSM) actions have been employed in

many cities. These actions emphasize the coordination and efficient management of the existing transportation system using low-cost strategies, such as public information campaigns, traffic engineering and operational improvements, ridesharing, parking management, staggered work hours, and others. Emphasis has been placed on the movement of people rather than the movement of vehicles.

Ridesharing is only one of the many strategies being employed to reduce urban traffic congestion, but it provides many benefits at a very low relative cost. To help fund some of the ridesharing activities, Congress has made Federal-aid monies available for a number of eligible items. State and local funds and private sector funds are also available for ridesharing activities.

4.2 Sources Of Funds

4.2.1 FHWA Construction Funds

Federal-aid highway construction funds are available for a wide range of activities, including:

- o Ridesharing programs.
- o TSM actions that support and encourage ridesharing, such as park-and-ride lots and high occupancy vehicle (HOV) facilities.

When talking about Federal-aid highway construction funds, it is important to recognize that (a) funds are authorized by Congress for various program categories, (b) most of those sums are distributed (i.e., apportioned) among the States by the Federal Highway Administration (FHWA) according to formulas prescribed by law, and (c) once distributed, the funds are available for use (i.e., obligation) by the States. At the time funds are distributed the States do not receive any cash. What has been authorized, apportioned, and made available is the authority for States to incur obligations (i.e., to establish commitments by the Federal Government to pay the Federal share of the cost of approved projects). The States later receive cash for the Federal share as work on the projects is done.

Keeping this in mind, let's take a look at sources of funds and processes for obtaining them. The largest and most reliable source of Federal funds is a portion of the Federal-aid highway construction funds administered by

the Federal Highway Administration (FHWA). These are funds given to the States to build highways. There is no guarantee that one penny will be spent on ridesharing. At the same time, Federal law since 1974 has allowed and encouraged that construction funds be used to support ridesharing programs. Once convinced of the benefits to be gained, many States have allowed their Federal funds to be used for ridesharing.

Federal-aid Primary (FAP), Secondary (FAS), and Urban (FAU or FAUS) System funds can be used to fund the daily operations of a ridesharing program--marketing, matching, brokering, loans for vehicle acquisition, evaluation, computer hardware and software, personnel and administrative costs, etc. These funds cannot be used for projects which will encourage substantial numbers of transit users to switch to carpools or vanpools. They can, however, be used for ridesharing projects that serve any Federal-aid system. Commuter Computer in Los Angeles and Metropool in Stamford, Connecticut, are just two of many ridesharing agencies that have used FAP, FAS, and/or FAU funds to support their daily ridesharing activities.

When it comes to TSM actions to support ridesharing (e.g., park-and-ride lots and HOV facilities), the FAP, FAS, and FAU System funds can be used if proper conditions are met. Two of the key conditions to be met are that the funds must be used on the appropriate Federal-aid system and the work to be performed must meet the eligibility criteria set forth in Federal laws and regulations. California, New York, Washington, Florida, New Jersey, Maryland, Connecticut, Virginia, Michigan, Texas, and most of the other States have used FAP, FAS, and/or FAU funds for park-and-ride lots and/or HOV facilities.

Pertinent Federal laws and regulations relative to daily ridesharing operations and to TSM actions to support ridesharing are summarized in the following Federal-Aid Highway Program Manual transmittals and may be found in the Appendix:

- o FHPM 6-8-2-3 (Volume 6 Chapter 8 Section 2 Subsection 3), "Carpool And Vanpool Projects"
- o FHPM 6-3-4 (Volume 6 Chapter 3 Section 4), "Mass Transit And Special Use Highway Projects"

In addition to the FAP, FAS, and FAU funds, Interstate Resurfacing, Restoration, Rehabilitation, and Reconstruction (Interstate 4R) funds can be used, and are being used, for TSM actions, including ridesharing, in conjunction with major highway reconstruction. Many

cities have utilized these funds for TSM actions designed to reduce congestion during the reconstruction of major urban freeways. Ridesharing agencies that have been involved in these activities include Caravan in Boston and Syracuse, RideShare in Detroit, the Rideshare Company in Hartford, and Minnesota Rideshare in Minneapolis, just to name a few.

The normal matching ratio for FAP, FAS, and FAU funds is 75 percent Federal and 25 percent State or local. The normal matching ratio for Interstate 4R funds is 90 percent Federal and 10 percent State. However, if the States desire, they may request up to 100 percent Federal funding for commuter carpooling and vanpooling projects.

Over \$214-million of Federal-aid highway construction funds have been spent for ridesharing activities since January 1, 1974. A sample computer printout showing a State-by-State breakdown as of July 31, 1987, is on the next page.

4.2.2 FHWA Planning Funds

Federal-aid highway planning funds can also be used to support planning related ridesharing activities. These activities have been determined to be marketing, matching, brokering, evaluation, and personnel costs related to these activities, but no vehicle acquisition and no TSM support actions. Both Metropolitan Planning (PL) and Highway Planning and Research (HPR) funds can be used for ridesharing activities. There are, however, heavy demands on these funds for metropolitan planning activities (PL funds) and highway planning and research activities (HPR funds). Any decision to use these funds for ridesharing is made by the State with respect to HPR funds and by local officials through the metropolitan planning agency with respect to PL funds. The normal matching ratio for PL and HPR funds is 85 percent Federal and 15 percent State or local.

4.2.3 Other Federal Sources

The Urban Mass Transportation Administration (UMTA) has some Section 9 funds available for some ridesharing activities. RSAs should contact their UMTA Regional Office for details as to eligibility and grant procedures.

4.2.4 State And Local Funds

For a ridesharing program to survive and be effective, it

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

CARPOOL AND FRINGE PARKING PROJECTS FINANCED WITH
FEDERAL-AID PRIMARY, SECONDARY, URBAN EXTENSION,
URBAN SYSTEM AND INTERSTATE FUNDS
AUTHORIZED SINCE JANUARY 1, 1974

PAD-0250-11POM

AS OF JULY 31, 1987

LFO1M45A-1

STATE	FRINGE PARKING Y025 1/	CARPPOOL FACILITIES Y026 2/	VANPOOL ACQUISITION Y028 3/	COMPUTERIZED PROGRAMS Y036 4/	TOTAL
CONNECTICUT	5,351,232.39	1,858,620.48	2,109,018.51	5,626,362.36	14,945,233.74
MAINE		204,460.55	134,000.00	16,186.50	354,647.05
MASSACHUSETTS	409,217.80	580,536.59	1,169,596.00	1,144,230.00	3,303,580.39
NEW HAMPSHIRE	226,322.25	40,052.94	58,334.06	144,504.37	469,213.62
NEW JERSEY	10,598,197.17	1,497,852.64	816,898.74	2,500,399.27	15,613,347.82
NEW YORK	15,596,260.00	1,423,176.00	985,374.00	375,995.00	18,380,805.00
RHODE ISLAND	960,689.28	64,000.00	934,392.49	914,199.13	2,873,280.90
VERMONT			413,437.63	387,444.68	800,882.31
PUERTO RICO					
REGION TOTAL	33,141,918.89	5,868,699.20	6,621,051.43	11,109,321.31	56,740,990.83
DELAWARE	401,325.00	63,090.00	25,795.30	13,500.00	503,710.30
MARYLAND	4,605,849.00	3,061,649.00	75,000.00		7,742,498.00
PENNSYLVANIA	2,996,672.69	1,928,660.43	515,815.00	1,971,433.58	7,412,581.71
VIRGINIA	6,613,088.89	229,578.74	185,472.74		7,028,140.37
WEST VIRGINIA		88,031.00			88,031.00
DIST. OF COL.	58,110.75				58,110.75
REGION TOTAL	14,675,046.33	5,371,009.17	802,083.04	1,984,933.58	22,833,072.12
ALABAMA				692,429.53	692,429.53
FLORIDA	9,092,030.00	3,302,937.00		311,812.00	12,706,779.00
GEORGIA	392,735.82			83,987.15	476,722.97
KENTUCKY	262,592.57	651,005.84	37,428.80	1,851,346.71	2,802,373.92
MISSISSIPPI				2,841.00	2,841.00
NORTH CAROLINA				51,553.00	51,553.00
SOUTH CAROLINA	22,540.25				22,540.25
TENNESSEE				792,720.00	792,720.00
REGION TOTAL	9,769,898.64	3,953,942.84	37,428.80	3,786,689.39	17,547,959.67
ILLINOIS	5,368,040.05	22,543.51			5,390,583.56
INDIANA				179,958.45	179,958.45
MICHIGAN	4,069,940.62	1,801,711.96	25,499.92	279,272.88	6,176,425.38
MINNESOTA	1,298,769.23	3,838,488.00		2,602,366.34	7,739,625.57
OHIO	850,448.00		50,797.00	1,889,397.00	2,790,642.00
MISCONSIN	2,556,278.53	65,023.23	254,523.00	966,369.51	3,842,194.27
REGION TOTAL	14,143,476.43	5,727,766.70	330,819.92	5,917,366.18	26,119,429.23
ARKANSAS	241,446.00		330,000.00		571,446.00
LOUISIANA	352,997.18			301,767.98	654,765.16
NEW MEXICO			679,814.17	566,208.27	1,246,022.44
OKLAHOMA					
TEXAS	3,855,847.50	1,938,030.10		3,800,005.00	9,593,882.60
REGION TOTAL	4,450,290.68	1,938,030.10	1,009,814.17	4,667,981.25	12,066,116.20
IDAHO	42,788.02			31,383.60	74,171.62
KANSAS				12,231.43	12,231.43
MISSOURI		134,064.00	18,168.34		152,232.34
NEBRASKA				345,410.11	345,410.11
REGION TOTAL	42,788.02	134,064.00	18,168.34	389,025.14	584,045.50
COLORADO	451,908.58			603,363.49	1,055,272.07
MONTANA				3,211.92	3,211.92
NORTH DAKOTA		838.10		3,920.92	4,759.02
SOUTH DAKOTA			13,371.92		13,371.92
UTAH	239,020.04	258,277.92		332,877.78	830,175.74
WYOMING					
REGION TOTAL	690,928.62	259,116.02	13,371.92	943,374.11	1,906,790.67
ARIZONA				3,162,333.00	3,162,333.00
CALIFORNIA	13,583,985.52	18,450,664.91		19,696,375.81	51,731,026.24
HAWAII		471,691.00		125,000.00	596,691.00
NEVADA				38,274.00	38,274.00
REGION TOTAL	13,583,985.52	18,922,355.91		23,021,982.81	55,528,324.24
ALASKA			30,600.00	533,614.56	564,214.56
IDAHO		245,910.83		11,173.33	257,084.16
OREGON	289,646.00			1,818,747.17	2,108,393.17
WASHINGTON	3,164,408.05	12,023,672.98		2,748,625.26	17,936,706.29
REGION TOTAL	3,454,054.05	12,269,583.81	30,600.00	5,112,160.32	20,866,398.18
GRAND TOTAL	93,952,387.18	54,444,567.75	8,863,337.62	56,932,834.09	214,193,126.64

1/ INCLUDES ALL CHANGE OF MODE TRANSPORTATION FACILITIES INVOLVING PUBLIC TRANSPORTATION FACILITIES.

2/ PROJECTS NOT INVOLVING PUBLIC TRANSPORTATION MODES, E.G. DESIGNATION OF CARPOOL ONLY LANES, CARPOOL ONLY PARKING, VANPOOL DEMONSTRATION, ETC.

3/ PROJECTS FOR ACQUIRING OR PROVIDING 'ABURT' PROTECTION FOR VEHICLES USED IN A VANPOOL PROJECT

4/ PROJECTS FOR LOCATING AND INFORMING POTENTIAL CARPOOL RIDERS OF RIDESHARING OPPORTUNITIES

must have the support, both policy and monetary, of the State and local governments under which it operates. The development of non-Federal monetary support is an art unto itself. It requires learning who has the funds, what they can be used for, who to ask for the funds, how to ask for the funds, when to ask for the funds, how much to ask for from a particular source, and a general sensitivity to what each government wants. The best introduction a ridesharing agency can have is a level of credibility built upon previous performance for the government being asked for funds or for someone they know and trust. With these basics in mind, let's discuss specific State and local government sources of funds for ridesharing activities.

The most common source of funds for State ridesharing programs is State highway funds administered by the Department of Transportation (DOT) or the State Highway Agency (SHA). These funds are normally derived from State gas tax revenues and are usually dedicated for highway purposes--administration, planning, research, construction, maintenance. There are extremely heavy demands on these funds for the construction and maintenance of highways. The justification for using these funds to support ridesharing activities, including parking and HOV, is that these activities preserve and enhance the capacity of existing highways and therefore contribute to realizing the maximum return from the initial investment. These State funds are sometimes used to help support local ridesharing programs which benefit State highways. The contact for these funds is either the State Ridesharing Coordinator, if there is such a person, or the nearest office of the State DOT/SHA.

Some States have their own energy monies and/or oil overcharge monies. The availability for ridesharing varies and has to be checked out in each case. There usually is a State Energy Office which can answer such questions.

The Governor's Office often has funds for special activities and also authority over the use of some general State funds for administrative purposes. This could yield staff or monetary support or both for a State Ridesharing Task Force since such goals and policy setting activities are usually of interest to the Governor. The key is to involve the Governor's staff in establishing the State Ridesharing Task Force. It will pay off in implementing Task Force recommendations regardless of any monetary involvement.

County and City governments have considerable latitude in the use of their funds. The only real issue is for the

ridesharing agency to demonstrate enough benefits received to convince the County Board or City Council to spend money on ridesharing. Relocation or retention of businesses, downtown congestion, parking problems, and air pollution are of immediate concern to these levels of government. Cities and counties are also likely sources for donated services and other support since they have personnel, information, and facilities available to serve common needs.

Metropolitan Planning Organizations (MPO) and Metropolitan Transit Commissions (MTC) often act as the ridesharing agency. Even when there is a separate, independent ridesharing agency, they still have a vested interest in TSM and ridesharing. When they act as the ridesharing agency they normally use their own local tax dollars to match Federal funds. When they cooperate with another MPO or MTC acting as a ridesharing agency or with an independent ridesharing agency, they often can be persuaded to donate services and sometimes even Federal, State or local funds that have been made available to them. The ridesharing program must be coordinated with the overall TSM and transit programs in whatever way is best for each metropolitan area.

Ridesharing attracts the interest of all sorts of agencies, local and regional planning commissions, school districts, and social programs. Ridesharing agencies can obtain significant support from these sources. The ridesharing agency is basically a service agency and people will pay for a service which meets their needs.

4.2.5 Private Sector Funds

A final and very important source of support for ridesharing is the private sector. The size and shape of this support is limited only by the imagination and diversity of our private economy.

The most common kind of support received from a private company is the donation of the time of a company ridesharing coordinator. This will often include secretarial support and office supplies as well as "time on the clock" for employees attending ridesharing meetings.

In this day and age of costly financing, volume (same profit on a lower margin) and preferred clientele (lower risk) still make a difference to financial institutions. Depending on the situation, RSAs might be able to obtain 100 percent financing for ridesharing vehicles, reduced rates or other advantages. The savings in this case go

into the pockets of the riders but there is no question that the financial institution and the overall program will benefit from the helping image.

The same situation applies for insurance. Ridesharers are good risks and companies that have investigated offer competitive rates. It pays to shop around for good coverage at a good price. There may even still be some established group policies available. Vanpool insurance is presently difficult to obtain at a reasonable cost. But this may change as the insurance market resolves its problems.

The people of the United States have a tendency, once they sense a need or problem, to set up an organization to deal with it. Hence there are a multitude of private associations which were set up for a particular purpose and survive for many reasons.

One of the newer associations which is of particular interest to ridesharers is the Transportation Management Association (TMA). A TMA is an institutional arrangement among private companies to facilitate the implementation of transportation programs. Depending on local requirements, a TMA may assure responsibility for running shuttle buses to a nearby commuter rail station, managing a ridesharing program, administering shared parking, coordinating a staggered work hours program, or instituting a program of local traffic flow improvements. More than 20 TMA's are already in existence. Most are organized around a single activity center, such as a business park, a medical center, an airport, or a large office building.

Some older and more general purpose associations which also support ridesharing on occasion are the Chamber of Commerce (COC) and Civic Associations (such as the Lions and Rotary). In some communities these associations help publicize ridesharing and/or donate various services (copying, printing, distributing, volunteer staff).

An organization similar to a TMA is a nonprofit ridesharing corporation. The difference is the focus on ridesharing. The member or client companies are assessed a fee which provides a privately funded base to match other funds. A prime example of this type is Metropool of Stamford, Connecticut. Their stated aim is to develop a private financial base (fees and income from services) which allows them to be independent of government funds.

Public service announcements (PSAs) are valuable to a ridesharing program as a match for Federal funds. Free media time is often provided by local radio and TV

stations. Often, however, free time is not the best time to reach commuters. It has been found that the judicious purchase of some media time for PSAs often leads to a more generous provision of good free time.

Woven all throughout the previous examples of private support for ridesharing have been references to donated services, equipment, and materials. The most successful programs combine skill and luck. Ridesharing coordinators should (a) keep in contact with private sector clients and friends, (b) make needs known to them in as diplomatic a fashion as possible, (c) remain flexible and ready to make use of whatever is offered, and (d) try to give private contributors a generous return on their investment. Openness to opportunity can yield rich dividends in personnel, computer time, other equipment use, materials and forms, and even use of vehicles.

4.3 The Funding Process

Now that we have looked at possible sources of funds that may be available for ridesharing and related TSM activities, let's take a look at ways to obtain these funds. Let's begin with the Federal-aid highway construction funds.

Federal-aid highway construction funds are distributed to the States with certain portions of the FAU and FAS monies earmarked for cities and counties, respectively. This means that the first point of request for these funds for ridesharing purposes is the State, county, city, or metropolitan planning organization (MPO), depending on which source of construction funds is being considered. Let's discuss each one individually.

Federal-aid Primary (FAP) funds are under the control of the States and can be used for all types of highway construction projects. This includes parking and HOV facilities, as well as ridesharing program activities. Construction activities would normally be performed under a State contract. Salaries and expenses for a ridesharing program would usually be those of State personnel engaged in an overall State program. However, if a local program (a) benefits FAP highways or (b) substitutes for a State program, it might be financed all or in part with FAP funds passed through by the State.

Federal-aid Secondary (FAS) funds are also under the control of the States. Some States retain all the FAS funds. Other States distribute a large portion of the FAS funds to the counties for projects selected in

cooperation with local officials. Either way, FAS funds can be used for parking and HOV facilities related to ridesharing and for the administration and operation of a ridesharing program. Here again, if the State or county perceives a benefit, they may be persuaded to designate some of the their FAS funds to support a ridesharing program. Since FAS funds are intended for rural areas the ridesharing program would have to serve non-urban areas.

Federal-aid Urban (FAU) funds are apportioned to the States to serve urban transportation needs. Federal law requires that projects must be selected cooperatively by local officials and must be consistent with the urban transportation plan. The funds can be used for both construction activities (parking and HOV) and ridesharing program activities (administration and operation, including loans for vehicle acquisition). The key to obtaining these funds is for ridesharing coordinators to demonstrate the value of their programs to local officials so appropriate funds will be included in the city or MPO program of projects. Programs of projects will be discussed in more detail later. They are very important funding documents.

Federal-aid Interstate 4R funds are under the control of the States, who retain also select the projects. These funds are available for resurfacing, restoring, rehabilitating, and reconstructing existing highway segments on the Interstate System. Relative to ridesharing, Interstate 4R funds may be available for TSM actions deemed necessary to mitigate construction/reconstruction related congestion problems within affected transportation corridors. A detailed listing of possible TSM actions, including ridesharing and related actions, may be found in the Appendix in a FHWA memorandum dated December 19, 1986.

A ridesharing agency could provide some valuable input to the State concerning fringe and corridor parking facilities, HOV lanes, ridesharing alternatives for commuters, and other related activities. If the State accepted this input, funds might be forthcoming, not only for parking and HOV facilities, but also possibly for the administration and operation of a ridesharing program during the time the construction and/or reconstruction is underway. The key for ridesharing coordinators is to keep aware of upcoming highway construction and reconstruction and to become involved in the early planning activities.

There are several other types of Federal-aid highway construction funds (bridge replacement and

rehabilitation, safety improvements, rail-highway crossings, Interstate and Interstate substitutions, emergency relief, and Federal lands highways), but none of them can normally be used for ridesharing purposes.

As discussed previously, there are two sources of Federal-aid planning funds which can be used for planning related ridesharing activities. These funds are the State controlled HPR funds and the MPO controlled PL funds. The most common use of these funds for ridesharing is where the State or the MPO chooses to support their own staff efforts with planning funds rather than divert construction funds. Either way, State or MPO, the ridesharing activities will have to be included in an approved planning work program. This work program is another funding document which will be discussed later.

When it comes to State funds, and State controlled Federal funds, the State budget process more often than not controls both kinds of funds. This is because Federal-aid highway funds are cost reimbursable type funds which requires that the States initially pay 100 percent of the cost with their funds and then claim reimbursement, after the fact, for the Federal pro-rata share. Therefore, whether a ridesharing program is federally reimbursed or pure State funds, there must be State budget authority to spend State funds to allow the State supported portion of the ridesharing program to be implemented.

The same condition applies to county, city and other local funds (MPO and MTC) applied to a ridesharing program. No matter what the source of funds the total budget approved for the city, county, or MPO/MTC will control the expenditures for ridesharing and other activities.

Private sector funds are also controlled by annual budgets but they often have greater discretion to make changes. There is a growing trend of voluntary assessments which contribute hard cash to ridesharing programs above and beyond other contributed services and materials. If the perceived value of a ridesharing program is high, funds will be available.

4.4 Programs Of Projects

Let's discuss some of the more important project documents used by the Federal, State, and local agencies. Ridesharing coordinators need to understand the purpose and timing of these documents in order to keep their

requests for funds moving to approval and to use the funds within approved limits.

It is important to be aware, as discussed previously, that Federal-aid projects are cost reimbursable. This means that a RSA must first spend other available funds to pay for 100 percent of the cost of the ridesharing activities that are eligible for Federal reimbursement. After these costs have been incurred, and normally paid, a voucher is submitted by the State to the FHWA and whatever pro-rata share was agreed upon in advance is paid. This pro-rata share can be up to 100 percent depending on the circumstances.

For Federal-aid highway construction funds, ridesharing activities must be included in a program of projects which has been (a) prepared by the State and approved by the FHWA, and (b) discussed by the proper mix of local and State officials. For urbanized areas (over 50,000 population), this program of projects is the Transportation Improvement Program (TIP) produced by the MPO. For the statewide program (including urbanized areas), this program of projects is called the Section 105 Program (required by Section 105 of Title 23 of the U.S. Code). It is produced by the State. The Section 105 Program usually incorporates the TIP verbatim for urbanized area projects. There are many fine details of timing and format which vary from State to State and must be worked out for each situation. Programs of projects are not funding documents. However, projects subsequently selected and approved for Federal-aid funding must come from these programs. The keys to having ridesharing and related projects included in these programs and to eventually obtaining Federal-aid funds are (a) good communications with State and local counterparts, and (b) advance review and approval by State and local officials.

Federal-aid planning funds are slightly different in that their review and approval document is a planning work program rather than a project list. This is because there is just one planning project each year (one statewide, one for each MPO) which combines all planning activities, including planning related ridesharing activities. These planning activities are described in a planning work program (including cost). After review by local, State, and Federal officials, the work program is approved and this approval sets up funds for all the activities, including ridesharing. Again timing is critical. These work programs start being assembled 6-9 months prior to their starting date so requests for funds must be ready at this formative stage before other commitments are made.

4.5 Steps To Follow To Obtain Funds

The funding process sounds very complicated and is very complicated. But there are a few steps that can be followed to make it all much simpler. These steps are as follows:

- o Determine which funds are available for ridesharing programs and projects.
- o Find out who selects the projects. Since the State controls all the Federal-aid highway construction money, and most of the other money that might be available, the person who decides which projects are funded might be the Governor, the highway commissioner, a State financial manager, or some other State employee or group of employees. In some instances the person who decides which projects are selected might be a MPO director, or even a county engineer or judge. Every State is different, but it is crucial for a ridesharing coordinator to know who selects the projects. Local ridesharing coordinators may obtain help in finding out who selects the projects from State ridesharing contacts. State ridesharing coordinators may obtain help from FHWA ridesharing contacts. The FHWA has a division office in every State, usually in the capital city. Ridesharing responsibilities in the FHWA division offices are usually handled by the planning engineers. They will be most willing to help.
- o Get a verbal commitment from the person who selects projects for funding to make some funds available for ridesharing. Depending upon the organizational level of this person, a ridesharing coordinator may or may not be able to communicate with him/her directly. A local ridesharing coordinator may have to work through the State ridesharing contact, or possibly ask a highly respected employer or local elected official to intercede. However it is done, the person who selects the projects must be reached and convinced that ridesharing is a worthwhile activity which provides significant benefits at a low relative cost.
- o Find out what procedures are required to obtain available funds. These procedures vary from State to State. Sometimes they seem overwhelming. But the process can be very easy. The first time through is the hardest. The secret is to make contact with the people who need the required documents and who know what the procedures are.

Talk to them every day. Find out what they need and when they need it. Local ridesharing coordinators should work closely with State ridesharing contacts, or possibly MPO directors or county officials, depending upon whose requirements they have to satisfy to obtain desired funds. In States where these contacts are not very active, or even very visible, a visit should be made to the chief engineer or the chief planner in the State highway agency with a request for assistance. State ridesharing coordinators should work closely with FHWA ridesharing contacts. One of the major responsibilities of FHWA division office employees is to help the States spend Federal funds by guiding them through the procedures. They want to see the money spent for worthwhile projects. They will be most willing to help.

5.0 SUMMARY

Obtaining Federal, State, or local funds for ridesharing purposes is an art. Ridesharing coordinators must know which funds are available, who selects the projects, how to convince these decisionmakers to select some ridesharing projects, and possibly most difficult, how to expedite the paperwork. The key is good communications. The rewards can be ample funds to provide quality ridesharing programs.

INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 8

EVALUATION



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 8

EVALUATION

1.0 OBJECTIVE

There is a need to evaluate ridesharing programs, including individual products and services, to see how effective they have been. This module discusses the need for good evaluations and suggested evaluation techniques, with much emphasis on data collection.

2.0 KEY REFERENCES

Guidelines for Using Vanpools and Carpools as a TSM Technique, Sections 3.3 and 6.8, NCHRP Report 241, Transportation Research Board, December 1981.

Performance Standards for Ridesharing Projects, Volume I--Project Evaluation Program and Volume II--Project Evaluation Workbook, Prepared by Donald A. Maxwell, Harry C. Petersen, and Richard L. Peterson, January 1984.

3.0 DEFINITIONS

The following definition may be helpful in considering the concept of evaluation.

- o Evaluation--a statistical and economic assessment of the extent to which a program, product, or service achieves its goals and objectives. The ultimate goal of an evaluation is to improve a RSAs ability to make future decisions.

4.0 EVALUATION

4.1 Introduction

Local and State decisionmakers, whether they be elected officials or professional staff, are continually faced with making decisions on transportation problems. They are frequently called upon to compare alternative transportation programs such as ridesharing, signal improvements, and street construction, and to allocate available resources in support of selected programs. Unfortunately, much of the data needed to make these decisions is often fragmented, scattered, unevaluated, or in a form unusable in the decisionmaking process. Evaluations can help alleviate this problem by aiding ridesharing managers in (a) demonstrating the effectiveness of their programs to State and local decisionmakers and (b) monitoring and improving the internal operations of their programs.

There is almost universal agreement among its supporters that ridesharing is a very cost-effective way to move people, reduce traffic congestion, abate air pollution, save energy, and reduce parking demand. But convincing decisionmakers of ridesharing's obvious virtues has not always been so easy. They typically want to "see some numbers."

For many ridesharing managers the ability to prove the cost-effectiveness of their programs is a matter of survival. This means that for ridesharing to flourish in a competitive atmosphere, they must arm themselves to compete with other programs for available funds. This may be difficult because (a) there is no standard reporting system and (b) ridesharing personnel are typically "people oriented" rather than "number oriented" individuals. As a result, concerted efforts often have not been made to collect the kinds of numerical data required for the development of meaningful evaluations.

Ridesharing managers must ask themselves:

- o What kind of evidence do we need?
- o Do we use easily obtained financial data, off-the-shelf models, and national averages, or do we design elaborate data collection systems, research all parameters, and make each evaluation totally unique?
- o And finally, how do we organize the information to our best advantage?

To begin to answer these questions, the following rules-of-thumb should be kept in mind:

- o The data used must be timely. It is necessary to recognize that evaluation is a continuous process, not a one-shot effort conducted just before budget time. The evaluation should be part of the administrative process and data collection should take place on a regular and continuous basis.
- o The evaluation must be localized. Every ridesharing program has several unique features which are usually a function of the local situation. Hence, any off-the-shelf plans or models must be tailored to retain the local personality of the program being evaluated.
- o The ridesharing program must be evaluated internally as well as externally. The following questions address some internal and external areas of concern:
 - How effective is the areawide ridesharing program?
 - How well are the employees doing their jobs?
 - How cost-effective is the program relative to actually forming pools and putting vehicles into service?
 - How cost-effective is the program in reducing vehicle miles traveled (VMT) and vehicle trips (VT)?
 - How does the ridesharing program compare with other competing programs?
- o Both evaluation and data collection processes must be, and must be perceived to be, useful and easy to use. They must fit unobtrusively into the program's administrative processes and not consume an inappropriate amount of project resources.

4.2 Pre-Evaluation Tasks

Before beginning evaluations of ridesharing programs there are two preliminary tasks which must be completed. The first task is to establish goals and objectives, sometimes referred to as performance standards. The second task is to collect data.

o Goals and Objectives

- A goal is a general direction or purpose. For example, to save gasoline, reduce pollution, or improve traffic flow.
- An objective is more specific. For example, to place 500 people into carpools this year, contact 20 employers each month, or create 10 vanpools each quarter.

o Data Collection

Meaningful evaluations must be based on data collected before, during, and after the course of the activities being evaluated. Much of the data needed can be obtained simply by keeping track of the program activities and costs. Other sources of data include surveys, small group and employer interviews, discussions with other ridesharing coordinators, demographic information, and available literature.

Surveys, if performed properly, provide very reliable data for evaluations, but good surveys are expensive and in many cases may not be justifiable. There are basically three different types of surveys:

- Mail-back surveys. Mail-back surveys generally have about a 30 percent response rate. The cost is relatively low. The information quality is also quite low, mainly because of the "non-response bias." That is, people who have formed carpools are usually more enthusiastic and more likely to respond. This results in non-representative, biased samples which tend to make ridesharing look more favorable than it really is.
- Telephone interviews. Telephone interviews generally provide response rates of 90 percent or better. The non-response rate is trivial. Some people may plead they are too busy to talk. But very few. Telephone interviews are obviously more costly than mail-back surveys due to the heavy commitment of staff time.
- Personal interviews. Personal interviews provide the highest quality information. The cost is very high, usually running anywhere from \$20 to \$50 per interview, depending upon the qualifications of the interviewer. Multiplied

by the sample sizes needed, the total cost for this type evaluation survey may begin somewhere between \$5,000 and \$10,000.

Surveys should sample the following three populations:

- Applicants. Applicants (i.e., people who have contacted ridesharing agencies through employers, by mail, or by telephone) within a given period, say a year, should be surveyed to measure services that directly cause ridesharing to increase, such as (a) matching services, (b) formal meetings or workshops designed to demonstrate the value of ridesharing, (c) technical assistance, or (d) the provision of vehicles. Deleted applicants (i.e., those who may have formed carpools or made other arrangements) should be included. Statistically speaking, good samples should include 300 to 600 people. Larger sample sizes will normally give even more reliable results. Topics to investigate might include (a) the use of the ridesharing agency in joining a pool, (b) the size of the carpool, (c) relationships with other poolers, (d) length of the trip, (e) pick-up and drop-off distances, (f) how riders meet the carpool, (g) length of time in the carpool, and (h) prior commute modes.
- Non-Applicants. People who have been specifically exposed to ridesharing promotions, say at a worksite, but who did not apply for matching information should nonetheless be surveyed to measure services that indirectly cause ridesharing to increase such as (a) increasing public awareness, (b) increasing the relative attractiveness of ridesharing, or (c) providing transit information. A good sample size for a non-applicant survey may be 200 to 400 people. Topics to explore might include (a) awareness of the ridesharing agency and its services, (b) commuting modes before and after the ridesharing promotion, (c) trip lengths, (d) reasons for pooling or non-pooling, and (e) carpool sizes and relationships.
- Other Commuters. Commuters other than applicants and non-applicants, as defined above, should be surveyed as a control for external factors. It is possible that mass media promotion techniques might have affected this group, but not nearly so much as other things,

such as gasoline prices. The sample size for this group may be 200 to 400 people.

4.3 The Evaluation Procedure

There are no nationally accepted procedures for performing ridesharing evaluations. Many ridesharing agencies have established their own procedures. The FHWA has established some suggested, step-by-step procedures, as a starting point for agencies that want to begin evaluating their programs. These procedures are contained in two 1984 publications titled "Performance Standards for Ridesharing Projects," "Volume I - Project Evaluation Program" and "Volume II - Project Evaluation Workbook."

The suggested FHWA procedures consist of one pre-evaluation module, four evaluation modules, and a summary report. They begin with the pre-evaluation module and continue step-by-step until all modules have been completed. Each module consists of one or more steps. The main purposes of the modules are outlined below:

- o Module 0--Pre-Evaluation

The Pre-Evaluation Module involves the determination of data needs, including the establishment of a systematic procedure for (a) collecting in-house data, and (b) determining what other data will be needed and how to obtain it.

- o Module I--Service Evaluation

The Service Module involves (a) the collection of service data, i.e., services provided and their costs, (b) an evaluation of the results, and (c) a comparison with a recommended set of performance standards. Services might be categorized as matching services, formal meetings/workshops, technical assistance contacts, service vehicles, increasing public awareness of ridesharing, increasing the relative attractiveness of ridesharing, and transit services.

- o Module II--Mode Evaluation

The Mode Module involves (a) the translation of service results into mode results, e.g., an agency might find that 1000 matchlists translate into 250 three-person carpools with an average former automobile occupancy of 1.75 persons per vehicle, (b) a summary of the mode results, i.e., how many

carpools, vanpools, buspools, etc., and the cost associated with each mode, and (c) a comparison of the mode results with a recommended set of performance standards.

o Module III--Transportation Evaluation

The Transportation Module involves (a) the translation of mode results into transportation results, i.e., into reductions in VMT and VT, (b) a summary of the transportation results and their costs, and (c) a comparison of the transportation results with a recommended set of performance standards.

o Module IV--Comparative Evaluation

The Comparative Module involves a comparison of the cost-effectiveness of the ridesharing program with other transportation improvement programs that might have been implemented.

o Module V--Summary Report

The Summary Report involves documenting the results of the evaluation in such a way as to emphasize the benefits of ridesharing and its favorable comparison with other transportation improvement measures.

5.0 SUMMARY

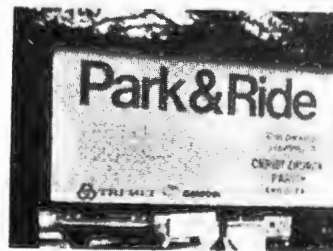
Evaluation is a necessary process. It helps ridesharing agencies judge past performances in order that they may provide relevant information to decisionmakers and determine any changes, modifications, or redirections needed.

There are no standard procedures for evaluating ridesharing programs. Many agencies have developed their own. The FHWA has some suggested procedures available for those who want to begin to evaluate. Regardless of the procedures used, ridesharing agencies should be collecting data on a continuing basis and performing periodic evaluations of their programs. As their proficiency in performing evaluations increases, they should be "fine tuning" their procedures to best account for unique features in their programs and also to best provide information that can be used to improve their programs.

INTRODUCTION TO RIDESHARING
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MODULE 9

NETWORKING



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INTRODUCTION TO RIDESHARING
A MANUAL FOR NEW RIDESHARING COORDINATORS

MODULE 9

1.0 OBJECTIVE

It is essential for ridesharing coordinators to communicate with each other. This module sets forth recommended procedures for doing this through the establishment and utilization of networks.

2.0 KEY REFERENCES

There are no readily available references.

3.0 DEFINITIONS

The following definition is the basis for this entire module.

- o Networking--the exchange of information or services among individuals, groups, or institutions.

4.0 NETWORKING

4.1 What Is Networking?

As defined above, networking is the exchange of information or services among individuals, groups, or institutions.

In addition, the exchange of information must be a two-way communication in order for a network to function properly. A member of any network must be willing to volunteer information to the other members as well as extract it.

4.2 How Does A Network Work?

Ridesharing networks fall into two general categories: formal and informal.

- o A formal network is usually established on a regional or statewide basis to aid in conducting the day-to-day operations of a ridesharing agency. Such a network normally serves a common market of commuters and shares resources, including marketing materials and data base information. Members usually meet on a monthly or quarterly basis to exchange ideas and innovative techniques, solve common operational problems, and coordinate regional marketing campaigns. Some examples of formal networks are as follows:
 - In the Washington, D.C., metropolitan area, the Metropolitan Washington Council of Governments serves as the focal point of a network of city and county ridesharing coordinators in the District of Columbia and its Virginia and Maryland suburbs. The Council of Governments provides data processing software and hardware. Local ridesharing coordinators promote ridesharing in their jurisdictions and feed information into the central data processing system. This type of network can also be extended to employment sites where on-site employee transportation coordinators become part of the network.
 - In Maryland, North Carolina, Florida, Georgia, and other States, statewide networks of local ridesharing coordinators have been established with the State transportation agency acting as the focal point. In Maryland and North Carolina, for instance, general marketing materials have been produced for use throughout the network. A toll free statewide 800 telephone number has been used in Florida and Georgia to put commuters in contact with the appropriate local coordinator in the network.
- o Informal networks are usually established on a multi-state or national basis to share ideas, exchange experiences, promote the concept of ridesharing, and to enhance the professional development of its members through workshops, conferences, and formal training. The annual Regional Ridesharing Conference of the Mid-Atlantic

States is a good example of an informal network of State and local ridesharing programs. On a national basis, the Association for Commuter Transportation (ACT) is an informal ridesharing network which serves special interests within the field of ridesharing.

In addition to ridesharing networks, there are other transportation related networks that also involve themselves in the field of ridesharing, including the Transportation Research Board (TRB) and the Institute of Transportation Engineers (ITE).

4.3 Are Networks Effective?

Networks are only effective when the members maintain a two-way communication process. Asking for information or help from other members of a network is a common one-way communication step, but the offering of information to the network as it becomes available, such as annual reports, examples of marketing materials, updating of members' addresses and telephone numbers, etc., is often given a low priority by network members.

In general, networks have been effective in saving members time and money by (a) providing expertise that might not have been available at an individual ridesharing agency or employment site, (b) sharing services, such as data processing and marketing materials, (c) providing formal training opportunities, (d) exchanging information on evaluation and funding, and (e) removing legal barriers to ridesharing at the State and national levels of government. The development of model laws on legal impediments, incentives, and parking, and the subsequent passage of legislation at the State and local levels of government based on these model laws, especially in regard to legal impediments, is a good example of effective networking and cooperation at the national and local levels.

4.4 Can Networks Be More Effective?

In discussions on improving the effectiveness of networks, ridesharing practitioners agree that the most important factors are (a) having knowledge of the existence of the various formal and informal networks and then (b) knowing what benefits and services are provided by each network.

Another area of importance in improving the effectiveness of networking is bringing personnel from new ridesharing

agencies into the existing networks. While a network can be most beneficial to a new ridesharing program or practitioner, these are the hardest ones for a network to reach out to in most situations because neither the network nor the potential new members have knowledge of each other.

5.0 SUMMARY

The following are general conclusions concerning the future of more effective networking:

- o All networks should strive to keep up-to-date directories of members' names, addresses, and telephone numbers in order to encourage more interaction among members.
- o Statewide networks should consider adding information to directory listings relative to members' specialities or expertise in order to aid members seeking help.
- o State and Federal transportation agencies and others should make continual efforts to inform new ridesharing agencies or staff persons of existing local, State, and national ridesharing networks.

In conclusion, ridesharing professionals and agencies need to spend more time in the future practicing the art of networking.

APPENDIX

FHPM 6-8-2-3, Carpool And Vanpool Projects.

FHPM 6-3-4, Mass Transit And Special Use Highway Projects.

Dec. 19, 1986, Memorandum, Traffic Management Activities During
Major Highway Reconstruction.



U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAY PROGRAM MANUAL

VOLUME	6	ENGINEERING AND TRAFFIC OPERATIONS
CHAPTER	8	TRAFFIC OPERATIONS
SECTION	2	TRAFFIC PROGRAMS

SUBSECTION 3 CARPOOL AND VANPOOL PROJECTS

Transmittal 398
August 18, 1986
HHP-25

- Par. 1. Purpose
2. Authority
3. Policy
4. Eligibility
5. Determination of an Exception

1. PURPOSE. **To prescribe policies and general procedures for administering a program of ridesharing projects using Federal-aid primary, secondary, and urban system funds.*
2. AUTHORITY. *23 U.S.C. 146 and 315; Section 126 of the Surface Transportation Assistance Act of 1978 (P.L. 95-599); and 49 CFR 1.48(b).*
3. POLICY. *Section 126(d) of the Surface Transportation Assistance Act of 1978 declares that special effort should be made to promote commuter modes of transportation which conserve energy, reduce pollution, and reduce traffic congestion.*

* Italicized material is codified in 23 CFR 656.

4. ELIGIBILITY

- a. *Projects which promote ridesharing programs need not be located on but must serve a Federal-aid system to be eligible for Federal-aid primary, secondary, or urban system funds depending on the system served. The Federal share payable will be in accordance with the provisions of 23 U.S.C. 120. Except for paragraph 4c(3) for all purposes of this directive the term "carpool" includes "vanpool."*
- b. *Projects shall not be approved under this directive if they will have an adverse effect on any mass transportation system.*
- c. *The following types of projects and work are considered eligible under this program:*
 - (1) *Systems, whether manual or computerized, for locating potential participants in carpools and informing them of the opportunities for participation. Eligible costs for such systems may include costs of use or rental of computer hardware, costs of software, and installation costs (including both labor and other related items);*
 - (2) *Specialized procedures to provide carpooling opportunities to elderly or handicapped persons;*
 - (3) *The costs of acquiring vanpool vehicles and actual financial losses that occur when the operation of any vanpool is aborted before the scheduled termination date for the reason, concurred in by the State, that its continuation is no longer productive. The cost of acquiring a vanpool vehicle is eligible under the following conditions:*

- (a) *The vanpool vehicle is a four-wheeled vehicle manufactured for use on public highways for transportation of 7-15 passengers (no passenger cars which do not meet the 7-15 criteria and no buses); and*
- (b) *Provision is made for repayment of the acquisition cost to the project within the passenger-service life of the vehicle. Repayment may be accomplished through the charging of a reasonable user fee based on an estimated number of riders per vehicle and the cost of reasonable vehicle depreciation, operation, and maintenance. Repayment is not required under the following conditions:*
- 1 When vehicles are purchased as demonstrator vans for use as a marketing device. Vehicles procured for this purpose should be used to promote the vanpool concept among employees, employers, and other groups by allowing potential riders and sponsors to examine commuter vans; or*
 - 2 When vehicles are purchased for use on a trial commuting basis to enable people to experience vanpooling first hand. The trial period must be limited to a maximum of 2 months. That part of the user fee normally collected to cover the capital or ownership cost of the van would be eligible for reimbursement as a promotional cost during the limited trial period. As with established vanpool service, all vehicle operating costs must be borne by the user(s) during the trial period.*
- (4) *Work necessary to designate existing highway lanes as preferential carpool lanes or bus and carpool lanes. Eligible work may include preliminary engineering to determine traffic flow and design criteria, signing, pavement markings, traffic*

control devices, and minor physical modifications to permit the use of designated lanes as preferential carpool lanes or bus and carpool lanes. Such improvements on any public road may be approved if such projects facilitate more efficient use of any Federal-aid highway. Eligible costs may also include costs of initial inspection or monitoring of use, including special equipment, to ensure that the high occupancy vehicle (HOV) lane designation is effective and that the project is fully developed and operating properly. While no fixed time limit is being arbitrarily prescribed for the inspection and monitoring period, it is intended that this activity be conducted as soon as possible to evaluate the effectiveness of the project and does not extend indefinitely nor become a part of routine facility operations.

- (5) *Signing of and modifications to existing facilities to provide preferential parking for carpools inside or outside the central business district. Eligible costs may include trail blazers, on-site signs designating highway interchange areas or other existing publicly or privately owned facilities as preferential parking for carpool participants, and initial or renewal costs for leasing parking space or acquisition of easements or restrictions, as, for example, at shopping centers and public or private parking facilities. The lease or acquisition cost may be computed on the demonstrated reduction in the overall number of vehicles using the designated portion of a commercial facility, but not on a reduction of per-vehicle user charge for parking.*
- (6) *Construction of carpool parking facilities outside the central business district. Eligible costs may include acquisition of land and normal construction activities, including installation of lighting and fencing, trail blazers, on-site signing, and passenger shelters. Such facilities need not be located in conjunction with any existing or planned mass transportation service, but should be designed so that the facility could accommodate mass transportation in the event such service may*

be developed. Except for the requirement of the availability of mass/public transportation facilities, fringe parking construction under this directive shall be subject to the provisions of paragraph 4, Part 3 of FHPM 6-3-4, Mass Transit and Special Use Highway Projects.

- (7) Reasonable public information and promotion expenses, including personnel costs, incurred in connection with any of the other eligible items mentioned herein.*

5. DETERMINATION OF AN EXCEPTION

- a. *The FHWA has determined under provisions of 23 U.S.C. 146(b) that an exceptional situation exists in regard to the funding of carpools so as to allow the State to contribute as its share of the non-Federal match essential project-related work and services performed by local agencies and private organizations when approved and authorized in accordance with regular Federal-aid procedures. The cost of such work must be properly valued, supportable and verifiable in order for inclusion as an eligible project cost. Examples of such contributed work and services include: public service announcements, computer services, and project-related staff time for administration by employees of public and private organizations.*
- b. *This determination is based on: (1) the nature of carpool projects to provide a variety of services to the public; (2) the fact that carpool projects are labor intensive and require professional and specialized technical skills; (3) the extensive use of joint public and private endeavors; and (4) the fact that project costs involve the acquisition of capital equipment as opposed to construction of fixed items.*
- c. *This exception is limited to carpool projects and therefore is not applicable to other Federal-aid projects. The exception does not affect or replace the standard Federal-aid funding procedures or real property acquisition procedures and requirements, FHPM's 7-2-1, 7-2-2, 7-2-3, 7-2-4, 7-2-5 and 7-2-7, The Acquisition Function.*



U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAY PROGRAM MANUAL

VOLUME	6	ENGINEERING AND TRAFFIC OPERATIONS
CHAPTER	3	PRECONSTRUCTION PROCEDURES
SECTION	4	MASS TRANSIT AND SPECIAL USE HIGHWAY PROJECTS

Transmittal 392
October 25, 1985
HNG-12

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PART 5. FEDERAL-AID URBAN SYSTEM NONHIGHWAY PUBLIC MASS TRANSIT
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PART 1 AUTHORITY 23 U.S.C. 137, 142, 149 and 315; 49 CFR 1.48(b)
and 1.51(f).

PART 2 GENERAL

1. PURPOSE. To implement Sections 137, 142, and 149 of
Title 23, U.S.C.
2. DEFINITIONS
 - a. Except as otherwise provided, terms defined in
23 U.S.C. 101(a) are used in this directive as so
defined.
 - b. The following terms, where used in this directive,
have the following meanings:
 - (1) Exclusive or preferential high occupancy
vehicle, truck, or emergency vehicle lanes -
one or more lanes of a highway facility or an
entire highway facility where high occupancy
vehicles, trucks or emergency vehicles or any
combination thereof, are given, at all times or
at any regularly scheduled times, a priority or
preference over some or all other vehicles
moving in the general stream of mixed highway
traffic. Carpool lane(s) - is any high
occupancy vehicle lane which allows use by
carpools.

- (2) Fringe and transportation corridor parking facilities - those facilities which are intended to be used for the temporary storage of vehicles and which are located and designed so as to facilitate the safe and convenient transfer of persons traveling in such vehicles to and from high occupancy vehicles and/or public mass transportation systems including rail. The term "parking facilities" includes but is not limited to access roads, buildings, structures, equipment, improvements and interests in land.
- (3) High occupancy vehicle - a bus or other motorized passenger vehicle such as a carpool or vanpool vehicle used for ridesharing purposes and occupied by a specified minimum number of persons.
- (4) Highway traffic control devices - traffic control devices as defined by the currently approved "Manual on Uniform Traffic Control Devices for Streets and Highways."
- (5) Metropolitan Planning Organization - that organization designated as being responsible, together with the State, for carrying out the provisions of 23 U.S.C. 134, as required by 23 U.S.C. 104(f)(3), and capable of meeting the requirements of Sections 3(e)(1), 5(1), 8(a) and (c) and 9(e)(3)(G) of the Urban Mass Transportation Act of 1964, as amended, 49 U.S.C. 1602(e)(1), 1604(1), 1607(a) and (c) and 1607a(e)(3)(G). This organization shall be the forum for cooperative transportation decisionmaking.
- (6) Nonhighway Public Mass Transit Project - a project to develop or improve public mass transit facilities or equipment. A project need not be physically located or operated on a route designated as part of the Federal-aid

urban system, but must be included in and related to a program for the development or improvement of an urban public mass transit system which includes the purchase and rehabilitation of passenger buses and rolling stock for fixed rail facilities, and the purchase, construction, reconstruction or improvement of fixed rail passenger operating facilities. Such projects may also include the construction, reconstruction or rehabilitation of passenger loading and unloading facilities for either bus or rail passengers.

(7) Passenger Loading Areas and Facilities (including shelters) - areas and facilities located at or near passenger loading points for safety, protection, comfort, or convenience of high occupancy vehicle passengers. The term "areas and facilities" includes but is not limited to access roads, buildings, structures, equipment, improvements, and interest in land.

(8) Responsible Local Officials -

(a) In areas under 50,000 population, the principal elected officials of general purpose local governments; or

(b) In urbanized areas, the principal elected officials of general purpose local governments acting through the Metropolitan Planning Organization.

3. PREREQUISITES FOR PROJECTS AUTHORIZED BY 23 U.S.C. 137, 142, or 149

(a) Projects in an urbanized area must be based on a continuing comprehensive transportation planning process, carried on in accordance with 23 U.S.C. 134 as prescribed in Federal-aid Highway Program Manual 4-4-2 and included in the transportation improvement program required by FHPM 4-4-6.

- (b) Except as otherwise provided by paragraph 3 of FHPM 4-4-6, projects under this subpart located outside the urbanized area boundaries should be coordinated with the appropriate local officials of the urbanized area as necessary to insure compatibility with the area's urban transportation plan.
 - (c) All proposed projects must be included in a program of projects approved pursuant to FHPM 6-3-2-2.
4. COORDINATION. The Federal Highway Division Administrator and the Urban Mass Transportation Regional Administrator shall coordinate with each other on any projects involving public mass transit to facilitate project selection, approval and completion.

PART 3 HIGHWAY PUBLIC TRANSPORTATION PROJECTS AND SPECIAL USE HIGHWAY FACILITIES

1. PURPOSE. To implement 23 U.S.C. 137, 142(a)(1), 142(b) and 149, which authorize various highway public mass transportation improvements and special use highway facilities as Federal-aid highway projects.
2. ELIGIBLE PROJECTS. The Federal Highway Division Administrator may approve on any Federal-aid system projects which facilitate the use of high occupancy vehicles and public mass transportation systems so as to increase the traffic capacity of the Federal-aid system for the movement of persons. Eligible projects include:
 - (a) Construction of exclusive or preferential high occupancy vehicle, truck, or emergency vehicle lanes, except the construction of exclusive or preferential lanes limited to use by emergency vehicles can be approved only on the Federal-aid Interstate System;

- (b) *Highway traffic control devices;*
- (c) *Passenger loading areas and facilities (including shelters) that are on or serve a Federal-aid system; and*
- (d) *Construction or designation of fringe and transportation corridor parking facilities. For parking facilities located in the central business district the Federal-aid project must be limited to space reserved exclusively for the parking of high occupancy vehicles used for carpools or vanpools.*

3. APPLICABILITY OF OTHER PROVISIONS

- (a) *Projects authorized under paragraph 2 of this part shall be deemed to be highway projects for all purposes of Title 23, U.S.C., and shall be subject to all regulations of Title 23, CFR.*
- (b) *Projects approved under this part on the Federal-aid Interstate System for exclusive or preferential high occupancy vehicle, truck, and emergency vehicle lanes are excepted from the minimum four-lane requirement of 23 U.S.C. 109(b).*
- (c) *Exclusive or preferential lanes on the Interstate System, including approaches and directly related facilities, can be constructed with Interstate construction funds only if they were approved in the 1981 Interstate Cost Estimate.*
- (d) *The Federal proportional share of a project approved under this part shall be as provided in 23 U.S.C. 120 for the class of funds involved. The Federal share for Interstate substitution projects is 85 percent except for signalization projects which may be 100 percent as provided by 23 U.S.C. 120(d). The provisions of Section 120(d) Title 23 U.S.C. may also be applied to regularly funded projects under Part 3 paragraph 2 as follows:*

- (1) *Signalization projects.*
 - (2) *Passenger loading area and facilities which principally serve carpools and vanpools.*
 - (3) *Fringe and transportation corridor parking facilities or portions thereof which are reserved exclusively for use by carpool and vanpool passengers and vehicles.*
- (e) *As required by Section 163 of the Surface Transportation Assistance Act of 1982, approval of Federal-aid highway funding for a physical construction or resurfacing project having a carpool lane(s) within the project limits may not be granted unless the project allows the use of the carpool lane(s) by motorcycles or it is certified by the State that such use will create a safety hazard. This requirement does not apply to high occupancy vehicle lanes which exclude carpools or to carpool lanes constructed by the State without the use of Federal-aid highway funds. The issue of the extent of utilization of these facilities including those constructed prior to January 6, 1982 with Federal-aid highway funds is a matter for individual determination by the State highway agency.*

4. APPROVAL OF FRINGE AND TRANSPORTATION CORRIDOR PARKING FACILITIES

- (a) *In approving fringe and transportation corridor parking facilities, the Federal Highway Division Administrator:*
- (1) *shall make a determination that the proposed parking facility will benefit the Federal-aid system by improving its traffic capacity for the movement of persons;*
 - (2) *may approve acquisition of land proximate to the right-of-way of a Federal-aid highway;*

- (3) may approve construction of publicly-owned parking facilities on land within the right-of-way of any Federal-aid highway, including the use of the airspace above and below the established gradeline of the highway pavement, and on land, acquired with or without Federal-aid funds which is not within the right-of-way of any Federal-aid highway but which was acquired in accordance with the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (84 Stat. 1894, 42 U.S.C. 4601 et seq.);
- (4) may permit the charging of fees for the use of the facility, except that the rate of the fee shall not be in excess of that required for maintenance and operation and the cost of providing shuttle service to and from the facility (including compensation to any person for operating such facility and for providing such shuttle service);
- (5) shall determine that the State, or the political subdivision thereof, where the project is to be located, or any agency or instrumentality of such State or political subdivision, has the authority and capability of constructing, maintaining, and operating the facility;
- (6) shall receive assurance from the State that the facility will remain in public ownership as long as the facility is needed and that any change in ownership shall have prior FHWA approval;
- (7) shall enter into an agreement with the State, political subdivision, agency, or instrumentality governing the financing, maintenance, and operation of the parking facility; and

- (8) shall approve design standards for constructing the facility as developed in cooperation with the State highway agency.
- (b) A State political subdivision, agency, or instrumentality thereof may contract with any person to operate any parking facility constructed under this section.
- (c) In authorizing projects involving fringe and transportation corridor parking facilities, the class of Federal-aid funds (primary, secondary, or urban system) used for projects under this paragraph may be either funds designated for the Federal-aid system on which the facility is located or the Federal-aid system substantially benefited. For Interstate funds to be used for such eligible projects the Federal-aid Interstate system must be the system which substantially benefits. The benefiting system is that system which would have otherwise carried the high occupancy vehicle or rail passengers to their destination. Interstate construction funds may be used only where the parking facility was approved in the 1981 Interstate Cost Estimate and is constructed in conjunction with a high occupancy vehicle lane approved in the 1981 Interstate Cost Estimate.

5. DESIGNATION OF EXISTING FACILITIES

- (a) In accordance with the provisions of Part 3 paragraph 2, the Federal Highway Division Administrator may approve on any Federal-aid system the work necessary to designate existing parking facilities (such as at shopping centers or other public or private locations) for fringe and transportation corridor parking.

- (1) *Eligible activities include the acquisition of or the initial and renewal costs for leasing existing parking space, signing of and modifications to existing facilities, trail blazer signs, and passenger loading areas and facilities.*
 - (2) *The approval criteria in (a)(1), (4), (5), (7) and (8) of Part 3 paragraph 4 above apply to these parking facilities.*
- (b) *In accordance with the provisions of Part 3 paragraph 2 above, the Federal Highway Division Administrator may approve on any Federal-aid system the work necessary to designate existing highway lanes as high occupancy vehicle lanes.*
- (1) *Eligible activities include preliminary engineering, signing, pavement marking, traffic control devices, minor physical modifications and initial inspection or monitoring of use.*
 - (2) *Such improvements may be approved on any public road if they facilitate more efficient use of any Federal-aid highway.*
- (c) *Interstate construction funds may be used only where the proposed projects were approved in the 1981 Interstate Cost Estimate.*

PART 4 MAKING HIGHWAY RIGHTS-OF-WAY AVAILABLE FOR MASS TRANSIT PROJECTS

1. PURPOSE. *To implement 23 U.S.C. 142(g), which permits the Federal Highway Division Administrator to authorize a State to make available to a publicly-owned mass transit authority existing highway rights-of-way for rail or other non-highway public mass transit facilities.*
2. APPLICABILITY

- (a) *The provisions of Part 4 are applicable to the rights-of-way of all Federal-aid highways in which Federal-aid highway funds have participated or will participate in any part of the cost of the highway.*
 - (b) *The provisions of Part 4 do not preclude acquisition of rights-of-way for use involving mass transit facilities under the provisions of parts 3 and 5 of this directive. Rights-of-way made available under this part may be used in combination with rights-of-way acquired under paragraphs 3 and 5 of this directive.*
3. APPLICATION BY MASS TRANSIT AUTHORITY. *A publicly-owned mass transit authority desiring to utilize land existing within the publicly acquired right-of-way of any Federal-aid highway for a rail or other nonhighway public mass transit facility may submit an application therefor to the State highway agency.*
 4. REVIEW BY THE STATE HIGHWAY AGENCY. *The State highway agency, after reviewing the application, may request the Federal Highway Division Administrator to authorize the State to make available to the publicly-owned mass transit authority the land needed for the proposed facility. A request shall be accompanied by evidence that utilization of the land for the proposed purposes will not impair future highway improvements or the safety of highway users.*
 5. ACTION BY THE FEDERAL HIGHWAY ADMINISTRATOR. *The Federal Highway Division Administrator may authorize the State to make available to the publicly-owned mass transit authority the land needed for the proposed facility, if it is determined that:*

- (a) the evidence submitted by the State highway agency under paragraph 4 above is satisfactory;
- (b) the public interest will be served thereby; and
- (c) the proposed action in urbanized areas is based on a continuing, comprehensive transportation planning process carried on in accordance with 23 U.S.C. 134 as described under FHPM 4-4-2.

6. AUTHORIZATION FOR USE AND OCCUPANCY BY MASS TRANSIT

- (a) Upon being authorized by the Federal Highway Division Administrator, the State shall enter into a written agreement with the publicly-owned mass transit authority relating to the use and occupancy of highway right-of-way subject to the following conditions:
 - (1) That any significant revision in the design, construction, or use of the facility for which the land was made available shall receive prior review and approval by the State highway agency.
 - (2) The use of the lands made available to the publicly-owned mass transit authority shall not be transferred to another party without the prior approval of the State highway agency.
 - (3) That, if the publicly-owned mass transit authority fails within a reasonable or agreed time to use the land for the purpose for which it was made available, or if it abandons the land or the facility developed, such use shall terminate. Any abandoned facility developed or under development by the publicly owned mass transit authority which was financed all or in part with Federal funds shall be disposed of in a manner prescribed by Office of Management and Budget Circular A-102, Attachment N. The land shall revert to the State for its original intended highway purpose.

(b) A copy of the use and occupancy agreement and any modification under paragraphs (a) (1), (2), and (3) of this section shall be forwarded to the Federal Highway Division Administrator.

7. USE TO BE WITHOUT CHARGE. The use and occupancy of the lands made available by the State to the publicly-owned transit authority shall be without charge. Costs incidental to making the lands available for mass transit shall be borne by the publicly-owned mass transit authority.

PART 5 FEDERAL-AID URBAN SYSTEM NONHIGHWAY PUBLIC MASS TRANSIT PROJECTS

1. PURPOSE. To implement 23 U.S.C. 142(a)(2), which allows the Urban Mass Transportation Administrator, by delegation of the Secretary of Transportation, to approve nonhighway public mass transit projects as Federal-aid urban system projects.
2. ELIGIBLE PROJECTS
- (a) Eligible projects are those defined as nonhighway public mass transit projects in part 2 of this directive subject to the limitations in paragraph b of this section.
- (b) All such projects for the construction, reconstruction, or improvement of fixed rail facilities shall be located within the urban boundaries established in accordance with FHPM 4-6-3.
3. SUBMISSION OF PROJECTS
- a. An application for an urban system nonhighway public mass transit project shall be developed by a public body as defined under the Urban Mass Transportation Administration Discretionary Capital Assistance Program and shall be prepared in accordance with procedures for the same Discretionary Capital Assistance program.

- b. The application shall be submitted concurrently to the State highway agency and to the Urban Mass Transportation Administrator. The State highway agency, if it concurs, shall submit a request to the Federal Highway Division Administrator for a reservation of apportioned Federal-aid urban system funds. The State shall include in its submission advice that such reservation of funds will not impair its ability to comply with the provisions of Section 105(d) of Public Law 97-424 (if a State certifies it does not need forty percent of its Federal-aid urban system (FAUS) funds for resurfacing, restoring, rehabilitation, and reconstruction (4R) work, and the Secretary of Transportation accepts such certification, the State may spend that unneeded amount for other eligible FAUS purpose, including nonhighway public mass transit projects).

4. RESERVATION OF FUNDS

- a. The Federal Highway Division Administrator shall review the State request, determine whether sufficient Federal-aid urban system funds are available, and notify the State highway agency and the Urban Mass Transportation Administrator of the reservation of funds.
- b. The apportioned funds reserved for the proposed project under paragraph 4 (a) above shall remain available for obligation unless the Federal Highway Division Administrator is notified that the application has been disapproved by the Urban Mass Transportation Administrator, or unless the responsible local officials in whose jurisdiction the project is to be located and the State highway agency jointly request the withdrawal of the project application.

5. APPROVAL OF URBAN SYSTEM NONHIGHWAY PUBLIC MASS TRANSIT PROJECTS

- a. An urban system public mass transit project may be approved by the Urban Mass Transportation Administrator when it is determined that:
- (1) the application and project are in accordance with the current UMTA procedures relating to discretionary capital assistance grants; and
 - (2) notification has been received from the Federal Highway Division Administrator that sufficient apportioned Federal-aid urban system funds are available to finance the Federal share of the cost of the proposed project.
- b. Approval of the plans, specifications and estimate of a nonhighway public mass transit project shall be deemed to occur on the date the Urban Mass Transportation Administrator approves the project application. This approval which is subject to the availability of obligation authority at the time of approval, will obligate the United States to pay its proportional share of the cost of the project.
- c. Upon approval of an urban system nonhighway public mass transit project, the Urban Mass Transportation Administrator will execute a grant contract covering implementation of the project.

6. APPLICABILITY OF OTHER PROVISIONS. The Federal proportional share of the cost of an urban system nonhighway public mass transit project approved under this part shall be equal to the Federal share which would have been paid if the project were a highway project as determined under 23 U.S.C. 120(a).



U.S. Department
of Transportation

**Federal Highway
Administration**

Memorandum

Subject: Traffic Management Activities
During Major Highway Reconstruction

Date: DEC 19 1986

From: Associate Administrator for
Safety and Operations
Associate Administrator for
Engineering and Program Development
Washington, D.C. 20590

HTO-34
HPN-23
Reply to HHO-31
Attn of: HNG-12

To: Regional Federal Highway Administrators
Regions 1-10

The Federal Highway Administration (FHWA), in cooperation with the Transportation Research Board, sponsored a National Conference on Corridor Traffic Management for Major Highway Reconstruction on September 28 - October 1, 1986, in Chicago. The purpose of the conference was to call attention to the role traffic management actions can play in maintaining acceptable levels of service during periods of highway reconstruction. Nationally recognized experts met in round table sessions and developed recommendations to address issues discussed at the conference. One important recommendation was that the FHWA needed to clarify its eligibility policy. This was based upon noted inconsistencies from State to State observed by both State and FHWA field personnel relative to the eligibility of traffic management actions.

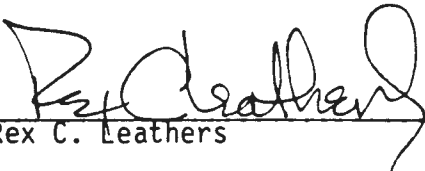
The FHWA policy for traffic management during major highway reconstruction is contained in the April 1986 "Flexibility Document" on page I-5. This policy, which is attached, indicates that traffic management actions, as part of reconstruction projects, may be eligible for 4R and other Federal-aid funds. The actions must be designed to mitigate congestion problems within the corridor where the reconstruction is taking place. The actions must be shown to be the most cost-effective means of maintaining traffic based on unique circumstances of the projects.

Attached is a comprehensive, but not necessarily all-inclusive, listing of traffic management actions that may be eligible for Federal-aid funding. Please note that a determination of eligibility is not necessarily an endorsement that a particular traffic management strategy should be implemented on a given project. Each construction project may have its own unique problems, institutional framework for mitigating traffic impacts, and budget limitations. Therefore, selection of the most effective strategies for moving traffic must be made as early as possible followed by appropriate public information and community liaison.

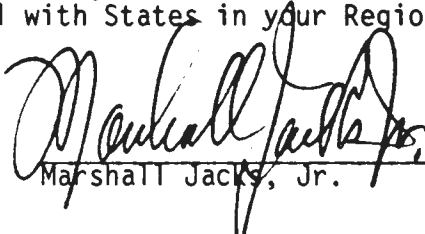
In selecting the traffic management actions for a given reconstruction project, the role of the contractor should not be overlooked. For example, contractors have the option of developing their own traffic control plan if the State and the FHWA find that these plans are as good or better than those in the original contract documents. Also, the inclusion of a value engineering clause in the contract provides an incentive for the contractor to develop proposals to reduce traffic management costs as well as other expenses. Furthermore, coordination among the contractor, the State, and FHWA is essential throughout the course of the project.

Some of the traffic management actions contained in the attachment have been demonstrated to effectively aid in maintaining traffic during highway reconstruction. Each specific activity must be carefully evaluated for cost-effective application to the planned reconstruction project. A particular action or a combination of actions may be difficult to justify in some instances and may not be considered appropriate for Federal-aid funding if not clearly warranted and included in an approved traffic management plan. This preliminary analysis is a very necessary and critical step in the overall effort to implement impact-reducing actions for highway reconstruction projects.

This memorandum and the attached information are being provided to assist you in planning, implementing, and administering major reconstruction projects. We encourage you to discuss this material with States in your Region.



Rex C. Leathers



Marshall Jacks, Jr.

Attachments

SUBJECT: Traffic Management for Highway Reconstruction Projects

REFERENCE: Title 23 U.S.C., Section 101(a)

DISCUSSION: This Section of Title 23 includes the definition of construction items which are incidental to the construction or reconstruction of a highway. As an example, several States have used 4R funds to implement specific, cost-effective programs to mitigate the traffic congestion problems that occur in urban areas as a result of the reconstruction project. Some of the more cost-effective actions to manage traffic during reconstruction may include traffic engineering improvements along alternate routes, ridesharing programs focused in the corridor where the reconstruction is taking place, and park and ride lots. These actions implemented in conjunction with accelerated construction contracting procedures (e.g., incentive/disincentive clauses) have been shown to lead to effective traffic management programs while allowing for a shortened construction schedule.

CONSIDERATIONS: States have the flexibility to request the use of 4R and other Federal-aid funds to implement these cost-effective actions as part of a traffic management package incidental to the reconstruction project. The FHWA can approve various types of strategies to handle traffic and mitigate existing demands in the corridor where the reconstruction project is taking place. These actions must be justified and warranted as part of the traffic management program.

RESPONSIBLE OFFICE: Office of Planning (HPN-23)
Office of Traffic Operations (HTO-34)

SOURCE: The Flexibility Document
April 1986
Federal Highway Administration

December 1986

HTO-34
HHO-31
HNG-12
HPN-23

TRAFFIC MANAGEMENT ACTIVITIES
WHICH MAY BE ELIGIBLE FOR FEDERAL-AID FUNDING
IN CONJUNCTION WITH MAJOR HIGHWAY RECONSTRUCTION

NOTE: A determination of eligibility is not necessarily an endorsement that a particular traffic management action should be implemented on a given project. Each action must be evaluated on its effectiveness based on the given set of circumstances.

Traffic management actions which may be eligible for funding with Federal-aid Primary, Secondary, Urban, and Interstate 4R funds in conjunction with major highway reconstruction are contained in the following but not necessarily all-inclusive lists:

I. Public Information

- o Reasonable public information and promotion expenses, including personnel costs incurred in conjunction with any of the following traffic management actions.

II. Traffic Control Through The Work Zone

- o Standard traffic control devices and practices in accordance with Part VI of the Manual on Uniform Traffic Control Devices (MUTCD).
- o Incident detection and management actions:
 - Tow trucks and service patrols.
 - Surveillance and control systems.
- o Traffic control officers to control speed and possibly to divert traffic for short periods of changed conditions.

- o Ramp metering.
- o Low cost systems to consolidate and distribute traffic information, coordinate the scheduling of maintenance activities - and special events, and to facilitate incident management.

III. Traffic Engineering and Operational Improvements on Alternate Routes

- o Preliminary and construction engineering.
- o Right-of-way acquisition.
- o Utility relocation.
- o Physical improvements, such as:
 - Lane or shoulder widening, construction of shoulders or additional lanes (thru or turn), median barriers, channelization, pavement markings, signing and signals for capacity and/or safety or for preferential treatment of high occupancy vehicles.
 - Grade separations (for railroads, pedestrians, or vehicles).
 - Reconstruction of restrictive segments which prevent full utilization of existing capacity along a route.
 - Removal, construction, or replacement of structures which restrict traffic flow.
 - Construction of separate traffic lanes and necessary facilities to accommodate passengers at transit terminals and intermediate stops; to accommodate carpools, vanpools, and buses; and/or to permit high occupancy vehicles to pass freeway ramp metering and control devices.
 - Resurfacing, restoring, and rehabilitating roadway sections.
- o Traffic control signalization (computerized and non-computerized):
 - Installation and removal of traffic signals.

- Making signals more responsive to the traffic conditions (e.g., with traffic actuated control).
 - Interconnecting signals to achieve better traffic progression.
 - Installation of modern control and detection equipment to replace older actuated equipment so as to increase reliability, reduce maintenance requirements, and facilitate more efficient operation.
 - Projects to develop new timing plans for improved signal progression in existing signal systems.
 - Upgrading of traffic signals to meet the visibility and operational requirements of the MUTCD and selective improvements at other problem locations.
 - Providing priority treatment for buses at signalized intersections.
 - Special signal facilities for operating variable turn lanes and/or traffic lanes, or to provide lane controls for high occupancy vehicles.
- o Traffic surveillance and control systems:
- Standard traffic control devices and practices in accordance with Part VI of the MUTCD.
 - Traffic control officers to control traffic at key intersections during peak hours.
 - Traffic control devices to implement temporary measures such as parking prohibitions, one-way streets, rerouting of turns, etc.

IV. Ridesharing

- o Manual or computerized systems for locating potential ridesharing participants and informing them of opportunities for participation including:
 - Computer hardware and software costs.
 - Related installation costs (including labor)
 - Specialized procedures to provide ridesharing opportunities to elderly or handicapped persons.
- o Loans for the acquisition of vanpool vehicles, including:
 - Vehicle acquisition costs so long as:
 - o The vanpool vehicle is a four-wheeled vehicle for transportation of 7-15 passengers, and
 - o Provision is made for repayment of the acquisition costs within the passenger service life of the vehicle.
 - Actual financial losses that occur when the operation of any vanpool is terminated before the scheduled date because its continuation is no longer productive.
- o Work necessary to designate existing highway lanes as preferential lanes for carpools, vanpools, and/or buses.
- o Signing of and modification to existing facilities to provide preferential parking for carpools and vanpools.

In addition, planning funds (PL and HPR) may be used for the development, monitoring, and evaluation of ridesharing activities. These funds should not, however, be used to support the normal day-to-day activities of a ridesharing agency. Eligible activities include:

- o Monitoring of the elements of a ridesharing project, including:
 - Data collection.
 - Evaluation.
 - Progress and final evaluation reports.
- o Development, evaluation, and updating of general ridesharing marketing plans.
- o Planning and development of new projects or elements of existing projects with an ongoing ridesharing program including:
 - Planning for the selection of a manual or computerized system to perform ridesharing services for the program.
 - Purchase or rental of microcomputers.
 - Planning and development of a vanpool leasing or acquisition element.
 - Planning for designated HOV lanes and carpool/vanpool parking facilities.
 - Planning and developing opportunities within a ridesharing program for the elderly and handicapped.

V. Parking Facilities to Encourage Ridesharing

- o Designation of existing facilities.
- o Acquisition of existing parking space.
- o Initial or renewal costs for leasing parking space or acquisition of easements or restrictions, such as at shopping centers and public or private parking facilities.
- o Necessary modifications to existing facilities.
- o Preliminary engineering for new facilities.

- o Acquisition of land for new facilities.
- o Normal construction activities.
- o On-site signing and pavement markings.
- o Trail blazers.
- o Passenger loading areas and facilities, including shelters.
- o Lighting and fencing.

VI. High Occupancy Vehicle (HOV) Lanes

- o Preliminary engineering.
- o Right-of-way acquisition.
- o Construction of new lanes or designation of existing lanes.
- o Reconstruction of shoulders or medians, and/or modifications to ramps, intersections, or barriers to accommodate new HOV lanes.
- o Minor physical improvements to accommodate designated HOV lanes.
- o Signing, pavement markings, and other traffic control devices.
- o Initial inspection or monitoring of use, including special equipment, to ensure that HOV lane designations are effective and operating properly.

VII. Evaluation Studies

- o Data collection and analysis actions, including the necessary equipment.
- o Documentation