

How to Pool it

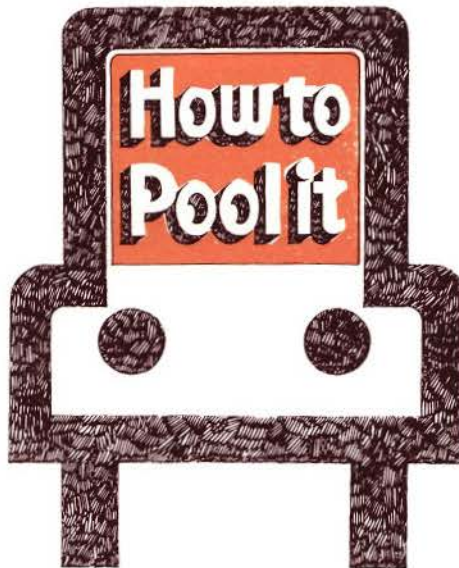
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U.S. DEPARTMENT OF TRANSPORTATION
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A RIDE SHARING MANUAL FOR EMPLOYERS

Prepared by the
U.S. Department of Transportation
and the
Highway Users Federation
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CAPSULE SUMMARY

INTRODUCTION

As an employer, you are the key to the success of ride sharing in this country, and ride sharing is one of the keys to helping solve our energy, our pollution and congestion problems.

This manual will give you an overview of ride sharing, show what it can do for you, as an employer, and what it can do for your employees. It is also a definitive publication that will show you how to start a ride sharing program at your company.

MANAGEMENT'S ROLE

Employer benefits include:

- 1) reduced parking facility costs
- 2) increased employee availability
- 3) improved employee relations
- 4) improved community relations
- 5) reduced congestion, pollution and energy consumption.

There is some cost to the employer, in terms of time and money, but the benefits of a ride sharing program far outstrip the costs.

Management commitment—Top executives need to decide the organization's role in a program and they need to show all potential participants that they are 100% behind ride sharing before any program will be successful.

Assignment of responsibility—Top management needs to assign a person or department the responsibility of coordinating the company's pooling effort.

TYPES OF RIDE POOLS

Carpools—conventional, collector or company cars

Vanpools—private or employer provided

Buspools—employer organized, rider organized or transit company arranged.

PUTTING THE PROGRAM TOGETHER

Getting started—There is no one best way to structure a ride sharing program. Each situation is different; each company must decide on its own needs, goals and objectives. There are some basic steps common to most programs:

- 1) find out what has been done by checking with the pooling agency in your area
- 2) set goals and objectives
- 3) establish success benchmarks
- 4) allocate a budget
- 5) assign personnel to take charge of the program
- 6) identify in what areas your employees reside
- 7) select a system to match your employees into pools using either
 - a) a manual system or
 - b) a computerized system
- 8) match your potential poolers
- 9) inform your employees of potential poolmates
- 10) maintain a file of how many pools have been formed, who has left a pool and any changes in poolers status.

Try to coordinate your program with others in the community, you may wish to combine programs in the future.

SELLING THE PROGRAM

The major concerns in selling the program to your employees should be:

- 1) clearly define the program
- 2) spread the word on the program in simple, direct terms to all potential poolers
- 3) make every effort to persuade potential poolers that the advantages of ride sharing are a tangible personal benefit.

Eight incentives that have been successfully used in getting employees to participate in ride sharing are:

- 1) financial
- 2) fuel savings
- 3) time savings and convenience
- 4) recognition
- 5) replacement services
- 6) personalized attention
- 7) example by leaders
- 8) social duty.

LEGAL ASPECTS

A voluntary program will mean less liability for the employer.

Pooling situations differ from area to area; therefore the employer should check with his insurance agent about liability coverage.

Carpoolers should be informed they can possibly save money on their insurance.

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INTRODUCTION

Ride sharing is back!

An often neglected but familiar old friend, ride sharing, is emerging as the most positive and practical solution to today's problems of traffic congestion and the high cost of gasoline.

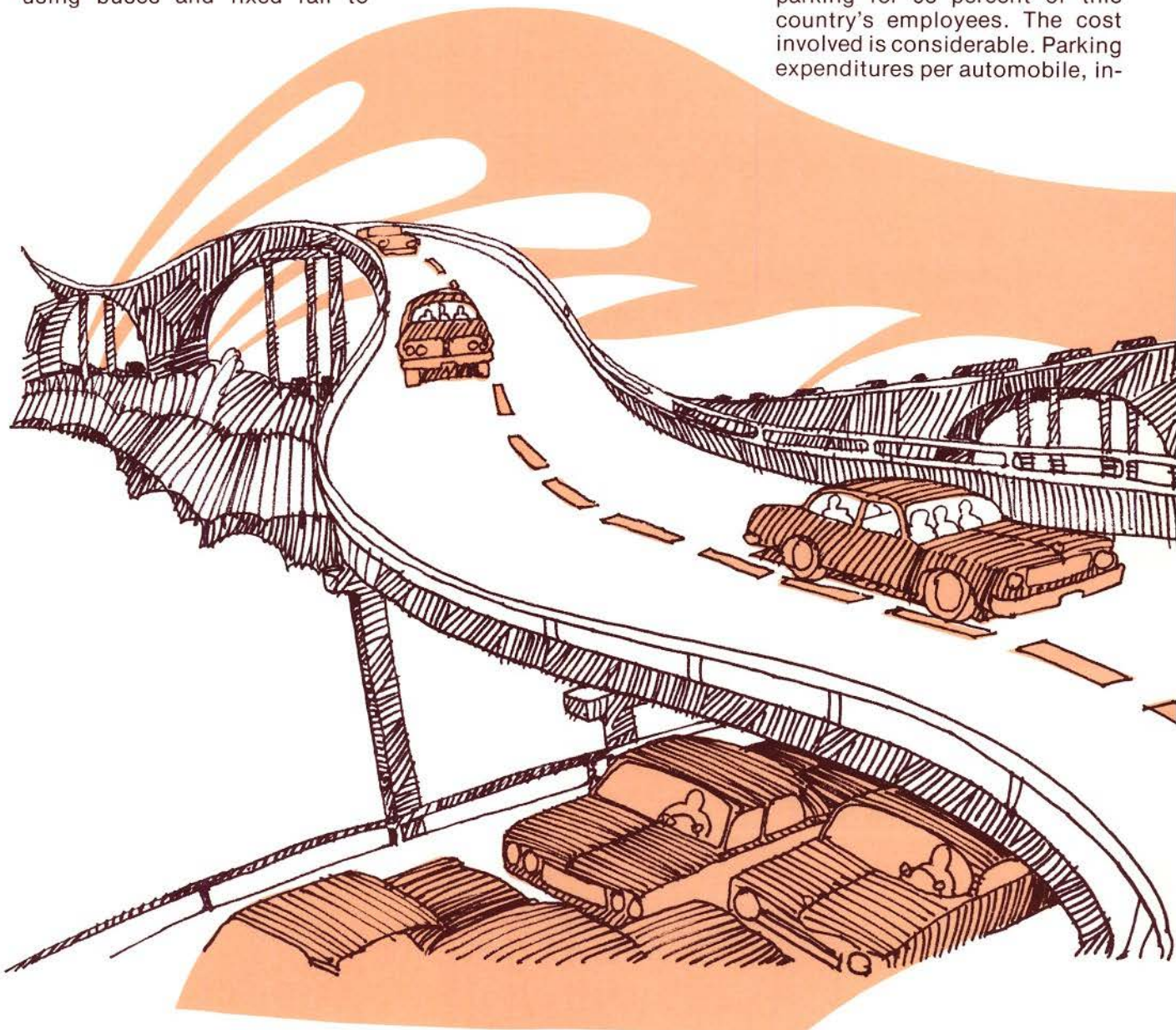
Ride sharing is an immediately available way to improve transportation productivity and reduce costs. Each two percent increase in auto occupancy nationally at rush hour would save over 1 billion dollars annually in operating costs and capital expenditures. With about eight percent of the country's work force now using buses and fixed rail to

commute to work, each two percent increase in ride sharing is equivalent to a 20 percent increase in transit. By sharing rides, this country can effectively reduce energy consumption, highway congestion and air pollution while saving billions of dollars annually

Leading American corporations such as 3M Company, Texas Instruments, Inc., Hallmark Cards, Aerospace Corporation, Jantzen, Inc., Government Em-

ployees Insurance Co., Boeing and others have found that volunteer carpool programs increase auto occupancy between 10 and 35 percent greatly reducing rush hour congestion. For example, during the height of the gasoline shortage, the city of Los Angeles reported a seven percent reduction in rush hour traffic from the preceding year. As a result, 40 percent of traffic delays were eliminated.

An employer directly benefits from participating in an organized ride sharing program. Employers currently provide free parking for 93 percent of this country's employees. The cost involved is considerable. Parking expenditures per automobile, in-



cluding land and construction costs, range from \$600 for surface parking to over \$6,000 for multi-level parking space. Operating, maintenance costs and taxes per space range from \$200 to \$1,000 annually.

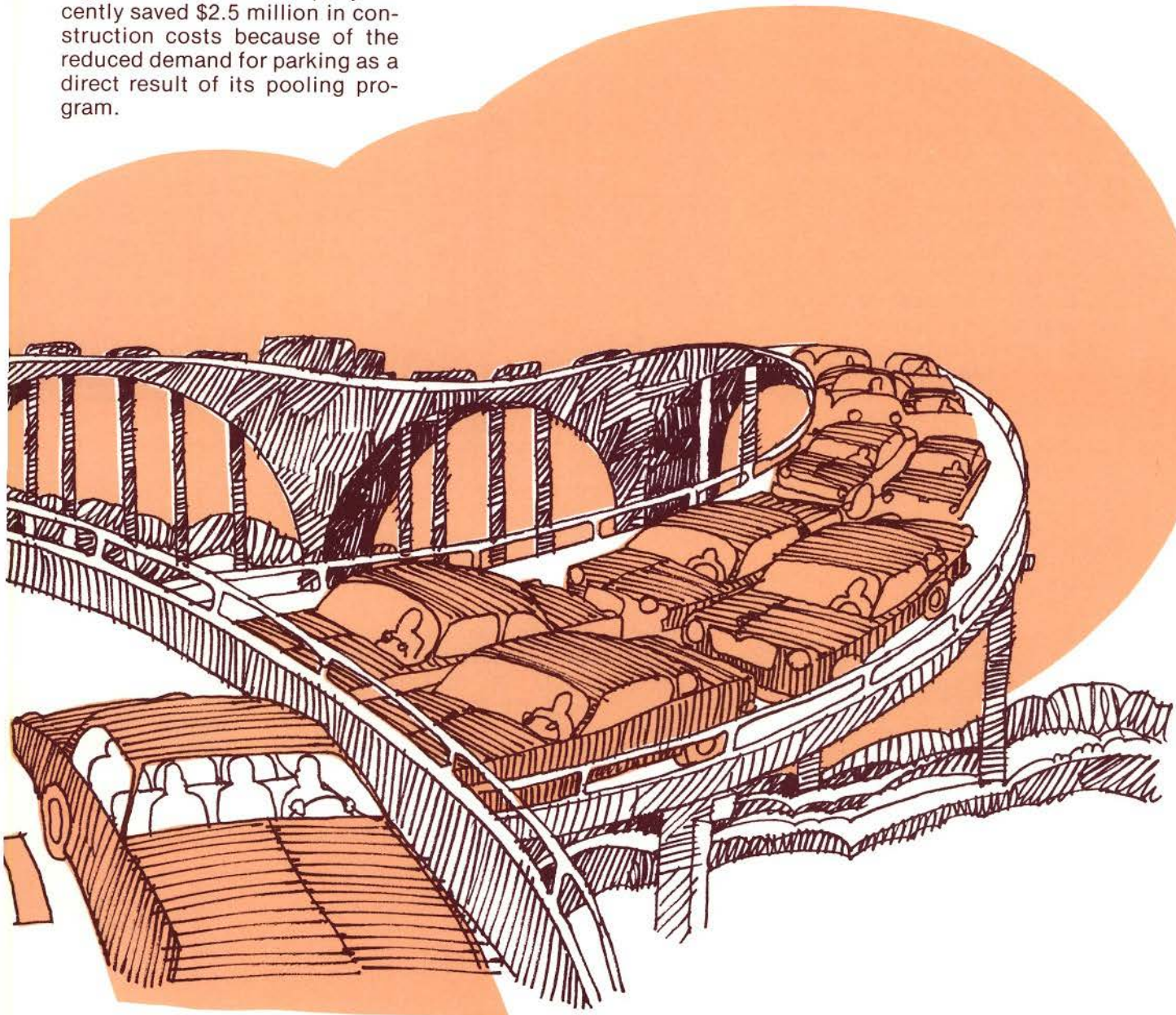
The Bell Telephone System reports that parking facilities, traffic controls, security and other services provided for employees driving to work at a major site cost an estimated \$1 million per year.

Ride sharing can reduce parking costs. The 3M Company recently saved \$2.5 million in construction costs because of the reduced demand for parking as a direct result of its pooling program.

Reduced parking costs is just one of the many benefits to an employer actively engaged in a well organized ride sharing program. It is, however, one of the most dramatic.

The purpose of this publication is to make those benefits clear to you as an employer. In addition, it will provide you with accurate, essential material that will help you begin an organized ride sharing program in your company.

As an employer, you are the key to fully realizing the potential benefits of ride sharing. Pooling, whether in cars, vans, or buses must become a national habit, one that we cannot afford to break.



MANAGEMENT'S ROLE

At least one thing is certain about employer-sponsored ride sharing programs—without the support of top management the program rarely succeeds.

In the absence of management support those responsible for

putting a ride sharing program together will be frustrated, and the potential of the program will never be fully realized.

As an employer you stand to benefit both directly and indi-

rectly from ride sharing. A good look at those benefits, some of which can easily be overlooked, will hopefully convince you that ride sharing is worth your investment.

EMPLOYER BENEFITS

Reduced Facility Costs

Parking facilities are a major expense for any employer. Land is expensive or impossible to obtain; construction costs seem to climb by the hour. Increasingly vocal citizens' groups and regulations concerned with protecting the environment can make favorable zoning decisions equally hard to come by.

Many companies have found effective ride sharing programs are a financially pleasing alternative to the endlessly expanding parking lot. In several cases, however, ride sharing was a last resort when first considered.

Government Employees Insurance Company (GEICO), in Chevy Chase, Md., became interested in ride sharing when a local zoning board denied a request to add 1,500 parking spaces on its property.



Through a conscientiously-promoted program of voluntary carpooling, with preferred parking as one incentive, and free or low cost bus service to central points as another incentive, GEICO found that it reduced its demand for parking and saved a considerable amount in construction costs by not building new facilities.

Hallmark Cards, Inc., located in downtown Kansas City, Mo., had no land available to increase its parking facilities. For Hallmark, ride sharing was a necessity.

Great Western Sugar in Denver, Colo., found that its ride sharing programs freed one entire lot for visitor parking.

The 3M Company saved \$2.5 million in construction costs for a parking facility at its headquarters in St. Paul, Minn., because of its successful vanpooling program.

Employee Availability

Ride sharing has been a traditional form of transportation for employees who drive great distances to and from work. Some of the longest existing carpools are also those which involve the greatest driving distances.

The Portsmouth Naval Shipyard in Virginia, has had employee organized vanpools for many years. Some of these vans travel over 40 miles each way.

In rural areas of the nation, long distance ride sharing has, for years, been the only means of getting to and from work for employees. U.S. Steel in Birmingham, Ala., has vanpools running 100 miles each way.

In addition to providing transit for workers living in outlying areas, ride sharing can be a means of tapping an otherwise

unavailable work force. Many hospitals use ride sharing programs to provide transportation, and thus employment, for people who would otherwise have no means of getting to and from work. Three of the vans running in the 3M Company program serve low income areas where there is no adequate transit system and commuting by automobile is financially prohibitive.

Employee Relations

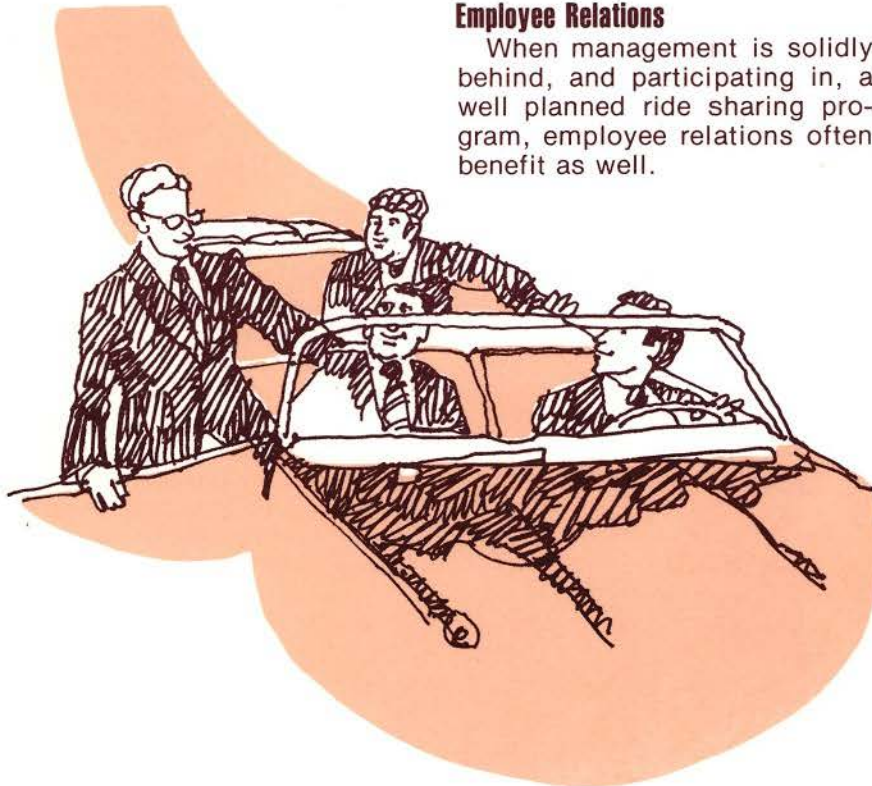
When management is solidly behind, and participating in, a well planned ride sharing program, employee relations often benefit as well.

Personnel departments are well aware of the Hawthorne effect—a visible improvement in work habits and production occurring as a direct result of management making a concerted effort to improve working conditions. Great Western Sugar found that management's active involvement in its ride sharing program gave a big boost to employee morale. When his schedule permitted, the president of the company carpooled with fellow employees.

Greater love hath no executive than to lay down his own reserved parking space to make way for a carpool parking lot!

The 3M Company has a vice president riding with clerical staff in the same vanpool.

When management is behind a ride sharing program, better employer-employee relations come naturally. Where management support—and participation—is lacking, both the program and company morale suffer.



Community Relations

Most companies want to be good neighbors, not only to their fellow companies but to the people living in their immediate community as well. Sometimes this is difficult. Jammed employee parking lots tend to spill over into residential neighborhoods. Quitting time often creates a traffic jam in the surrounding neighborhood that is as taxing on residents as it is on employees. When zoning applications are applied for, these annoyances can bear bitter fruit with the local zoning board.

Government Employees Insurance Company (GEICO) found that its ride sharing program reversed what had become a very negative situation caused by employees parking in the surrounding neighborhood. GEICO was

able to reduce the demand for parking to the point where existing lots could accommodate most of its employees.

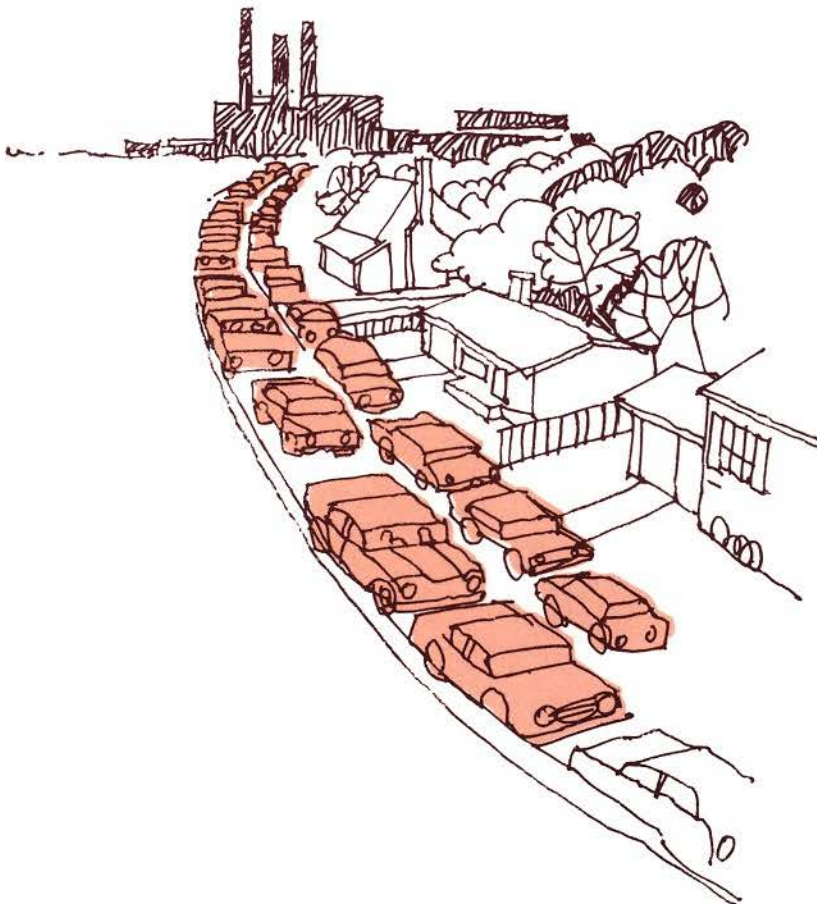
Prior to ride sharing, side streets and even driveways had become clogged with overflow automobiles.irate residents of the community had taken to showing their displeasure not only through angry phone calls and letters to the GEICO office, but occasionally by direct attack on the vehicles themselves! More than a few GEICO employees who parked on nearby streets were treated to deflated tires or soaped windshields before ride sharing caught on.

Today GEICO enjoys a much improved position among its neighbors. Not only did it relieve the crush of congestion and parking, but it was accomplished without laying any new asphalt. As a result, the neighbors are happy and, most importantly, the GEICO employees are happy.

"Operation Oxygen" in Pasadena, Calif., proved that businesses in a community could cooperate in a ride sharing effort to the mutual benefit of the companies involved, as well as the community at large. Under the leadership of the local facility of Burroughs Corporation, several businesses in Pasadena pooled their resources to provide matching services for employees. The results benefitted the community by reducing congestion, and showed that companies would cooperate in backing ride sharing to serve the common interest.

The very real benefits offered a company by entering into a ride sharing program are augmented by a sudden improvement in its public image. Nearly all companies who have participated in ride sharing efforts have found that there are many public relations values in being identified as a "good neighbor."

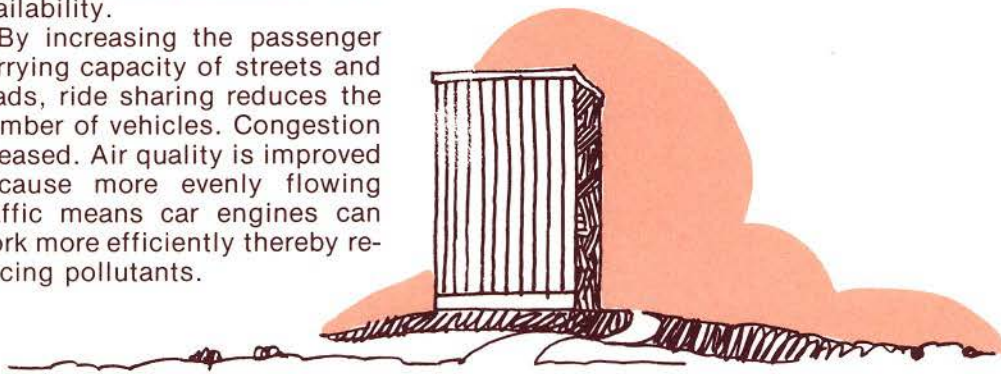
Companies like Northern Natural Gas in Omaha, Neb., found that the local media considered its ride sharing accomplishments very newsworthy. Indeed, many companies have said they could not buy the same kind of favorable publicity that they received for free from their ride sharing efforts.



Indirect Benefits

Ride sharing has several indirect benefits to employers' as well as direct ones. It is the cheapest, most efficient, and most readily available means we have of dealing with three major transportation problems; congestion, air pollution and energy availability.

By increasing the passenger carrying capacity of streets and roads, ride sharing reduces the number of vehicles. Congestion is eased. Air quality is improved because more evenly flowing traffic means car engines can work more efficiently thereby reducing pollutants.



EMPLOYER CONSIDERATIONS

Economically beneficial to individuals, companies and society, and an effective means of dealing with traffic congestion, air quality and energy conservation—what is involved in starting a ride sharing program? From the employer's standpoint, there are some things that should be taken into consideration before deciding to start a program.

Cost

It is commonly accepted that you don't make money without spending money. Ride sharing programs are no exception. There is some cost involved in setting up and managing a ride sharing program, both in time and money. People have to be assigned to manage the program and their time is an expense. If computers are used for matching, time in use is a financial factor.

But these costs are comparatively small and companies have found that money spent on promoting a ride sharing program brings a gratifying return in the

form of dollars saved and improved employee morale. What's more, many companies faced with building new parking facilities have found they were able to cancel construction plans by instituting a ride sharing program.

More extensive programs such as subscription bus service, or vanpool programs may require greater expense than ride sharing involving only private automobiles. But experience has shown that nearly every company involved in a well planned ride sharing program found the benefits outweighed the costs. Furthermore, there is no record of any company discontinuing its efforts because of cost factors.

In many cities throughout the country stringent air quality standards may result in traffic control strategies that could affect business vitality. A show of initiative on the part of the public in general, and employers in particular, could reduce the impact of clean air requirements.

Energy conservation is, of course, another area where ride sharing indirectly benefits the employer. In a situation where conservation is likely to be a prevailing ethic between now and the next 10, 15 or 20 years, ride sharing programs offer great potential in reducing the competition for fuel between industry and transportation needs. Moreover, should rationing or a fuel scarcity of any kind occur, ride sharing programs could be a critical factor in insuring employee availability.

Insurance and Liability

Some companies have expressed concern over questions of liability arising from an employer-sponsored ride sharing program. Experience has shown that management support of programs which encourage voluntary participation is not generally a situation that increases the employer's liability. This is covered in a later section on insurance and liability.

There is one other area of concern that has been expressed by some employers considering involvement in ride sharing programs. In the area of labor relations, incentive plans and direct financial support of ride sharing programs could become negotiable items in future labor contracts.

These considerations, insurance liability and incentives, make it advisable that legal and personnel staffs be involved in the early planning stages of any ride sharing program.



MANAGEMENT COMMITMENT

Top management's full commitment is important for two reasons. The first is deciding what the company or organization's role or extent of involvement is to be. The second is to show to all potential participants, as well as those responsible for administering the program, that top management is 100 percent behind the effort.

An employer can be involved in ride sharing at three levels:

1. helping employees get together
2. providing vehicles for pooling, or seeing that they are provided

3. setting up or participating in programs with other employers, or with an areawide effort.

At one time or another an employer may want to become involved at all three levels, and many have.

ASSIGNMENT OF RESPONSIBILITY

Naming of a person or department to coordinate a company ride sharing program is often made on the basis of what first motivated the firm to get into pooling. In cases where pooling was viewed largely as a computer matching operation, it is sometimes assigned to an engineering department. In most cases, however, management is more likely to assign the program to a personnel department.

Assignment of the responsibility to personnel has the following advantages:

- It routinely keeps and handles employee records including knowledge of home addresses and phone numbers.
- There are usually existing capabilities for company-wide communications.

- There is likely to be awareness of where people park, which is a big consideration in a ride sharing incentive package.
- There is generally a close relationship with the data processing office, which facilitates use of computers if they are needed.
- There is an understanding of employee relations which can help avoid or overcome problems.



TYPES OF RIDE POOLS

A ride pool can be many things; a carpool of two or more people, a vanpool of up to 15, or a buspool of up to 50. Each is a variation on a theme; the different types of pooling should be explored and considered thoroughly in planning a ride sharing program.

For the purposes of developing an organized ride sharing program, a ride pool should fulfill one or more of the following functions:

- serve commuter trips to work
- be prearranged through some form of a matching system
- operate on a repetitive and semipermanent basis
- serve a central destination from a concentrated residential area, collection point, or route
- operate for mutual benefit rather than for personal profit.

The size of a ride pool becomes an important consideration when incentives are used as an integral part of a ride sharing program. By necessity, most incentive plans require some form of minimum occupancy:

- "3 X 3" (three persons per car at least three times a week) is required by Government Employees Insurance Company for preferred parking.
- Two occupants per car is the minimum for access to special carpool ramps on the San Diego Freeway in California.

- Three occupants is the minimum for toll reduction on the San Francisco-Oakland Bay Bridge.
- Four occupants are required for use of the special carpool-bus lanes on Shirley Highway leading into Washington, D.C.

In some instances incentives have been made flexible depending on the number of occupants per car. McDonnell-Douglas Corporation uses a sliding scale in their preferred parking—the higher the occupancy, the closer the preferred parking space is to the main building.

Incentives based on occupancy apply primarily to carpools. Larger ride pools are really just extensions of the carpool concept.

Vanpools utilize readily available vans usually equipped to carry 8-12 occupants.

Buspools are usually standard transit buses operating on a guaranteed seat basis to and from prearranged destinations. Sometimes called subscription bus service or "club buses," buspools are distinct from express buses which are common carriers and serve the general public.



CARPOOLS

The Conventional Carpool

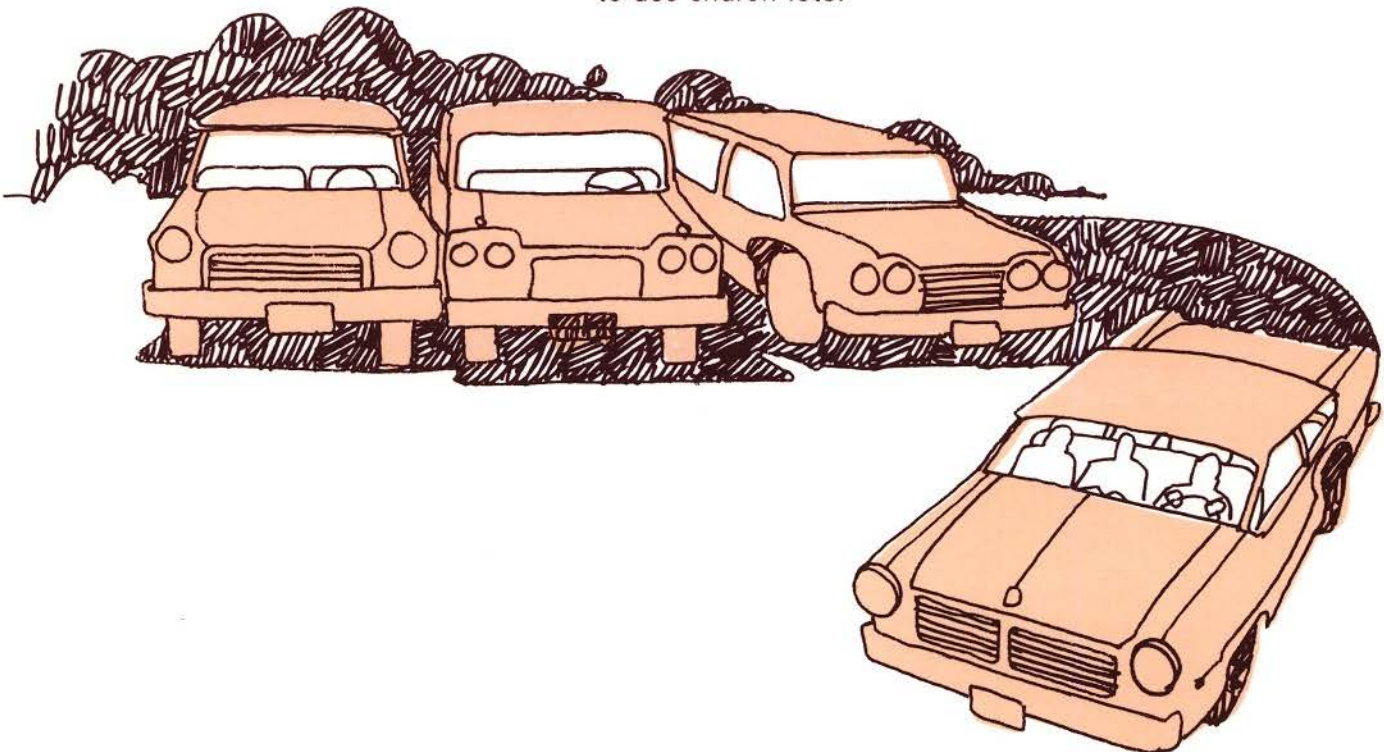
The conventional carpool may have from 2-6 (or more) regular members. It may rotate drivers on a daily, weekly or monthly basis, or in some combination which is limited only by practical necessities and the participants' imaginations.

The Collector Carpool

In a collector carpool, riders assemble at one point (usually in their own cars) and proceed to their final destination in a pool vehicle.

- Collector pools typically have casual parking arrangements using street space or public property.
- Some shopping centers invite and encourage parking by carpools. In company-sponsored programs permission to use parking facilities for collector lots should be cleared through shopping center management.
- Church parking lots are often empty during week days. Carpool groups in Huntsville, Ala., and Miami, Fla., have successfully obtained permission to use church lots.

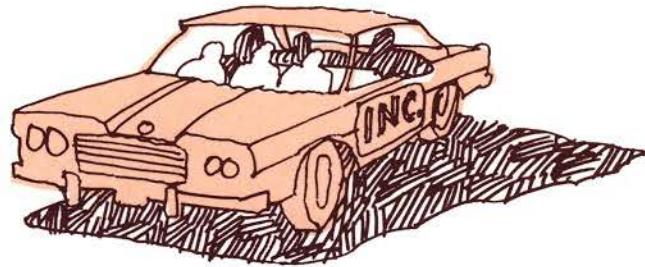
- Collector lots for carpools and buses along major arterials or at freeway interchanges have been constructed by some state highway agencies. Virginia, Utah and Connecticut have such lots already in existence. The State of Connecticut has 18 permanent and 62 temporary collector lots, and several more are in the planning stages.



Company Cars

Companies with large motor pools may consider permitting use of company vehicles for home-to-work travel provided that a set number of other employees are also transported.

- Some employers have found use of company vehicles an inexpensive means of encouraging carpooling. General Motors Corporation and the States of Arkansas and Minnesota have instituted such plans.
- A variation of the company-provided vehicle for pooling is to provide company car transportation to outlying sites or transit terminals as part of a collector pool system.



VANPOOLS

Private Vanpools

Vanpools have existed for many years, mostly when a plant or company draws workers from greater distances. Portsmouth Naval Shipyard in Virginia and U.S. Steel in Pittsburgh have had privately run vanpools for years.

Typical of the private vanpool is one run by the Sussex Com-muter Club (S.C.C.) in north-western New Jersey. The eight members of S.C.C. lease a cus-tomized van equipped with stereo, air conditioning, a card table, ice chest and heavy duty tires. Coffee is served in the morning.

Each new member pays \$150.00 to the club's emergency fund. Monthly dues of \$60.00 per person pays for the van and all operating costs for the 130-mile round trip into New York City.



Employer-Provided Vanpools

The idea of an employer-organized vanpool program is relatively new, yet promises to be a significant trend in future employee transportation. The prototype program and one which has served as the model for most subsequent efforts was developed by 3M Company. The 3M "Commute-A-Van" program began as a six-van pilot operation in the spring of 1973. Since that time the program has expanded to 67 vans with further expansion anticipated.

- 3M issues a van to an employee-driver who is responsible for the vehicle. The driver is selected on the basis of his driving and work record, and on the amount of business travel away from St. Paul, required by his job.
- 3M calculates monthly fares and invoices passengers.

The driver's responsibilities include:

1. Drive the van to and from the 3M facility and pick up and discharge passengers.
2. Arrange for service and maintenance of the van and clean the van as needed.
3. Keep the pool at or above the minimum of eight paying passengers.
4. Assume responsibility for training of backup or substitute drivers to insure daily operation of the vanpool.
5. Supply a heated place for overnight parking of the vehicle.
6. Keep a record of the vanpool's operating expenses.

In return for coordinating the pool the driver receives free transportation. He is also reimbursed for passenger fares over the eight-minimum. This encourages him to fill the van to the 12-passenger maximum. These fares are considered taxable income. In addition he is allowed use of the vehicle during off-hours and weekends for a charge of seven cents per mile.

Passenger fares are calculated on a mileage-based fee. For eight passengers this is calculated to include all costs of vehicle insurance, maintenance and operation. The company assumes any administrative costs. Vehicle costs are estimated at \$6.10 per day fixed costs plus eight cents per mile. Fares are based on eight paying riders. Fares range from \$19.50 per month for the shortest trip (seven miles) to \$39.11 per month for the longest trip (65 miles). There is no refund for missed rides.

Many other companies have embraced the vanpool concept as a low cost and efficient means of providing employee transportation while at the same time reducing demand for parking

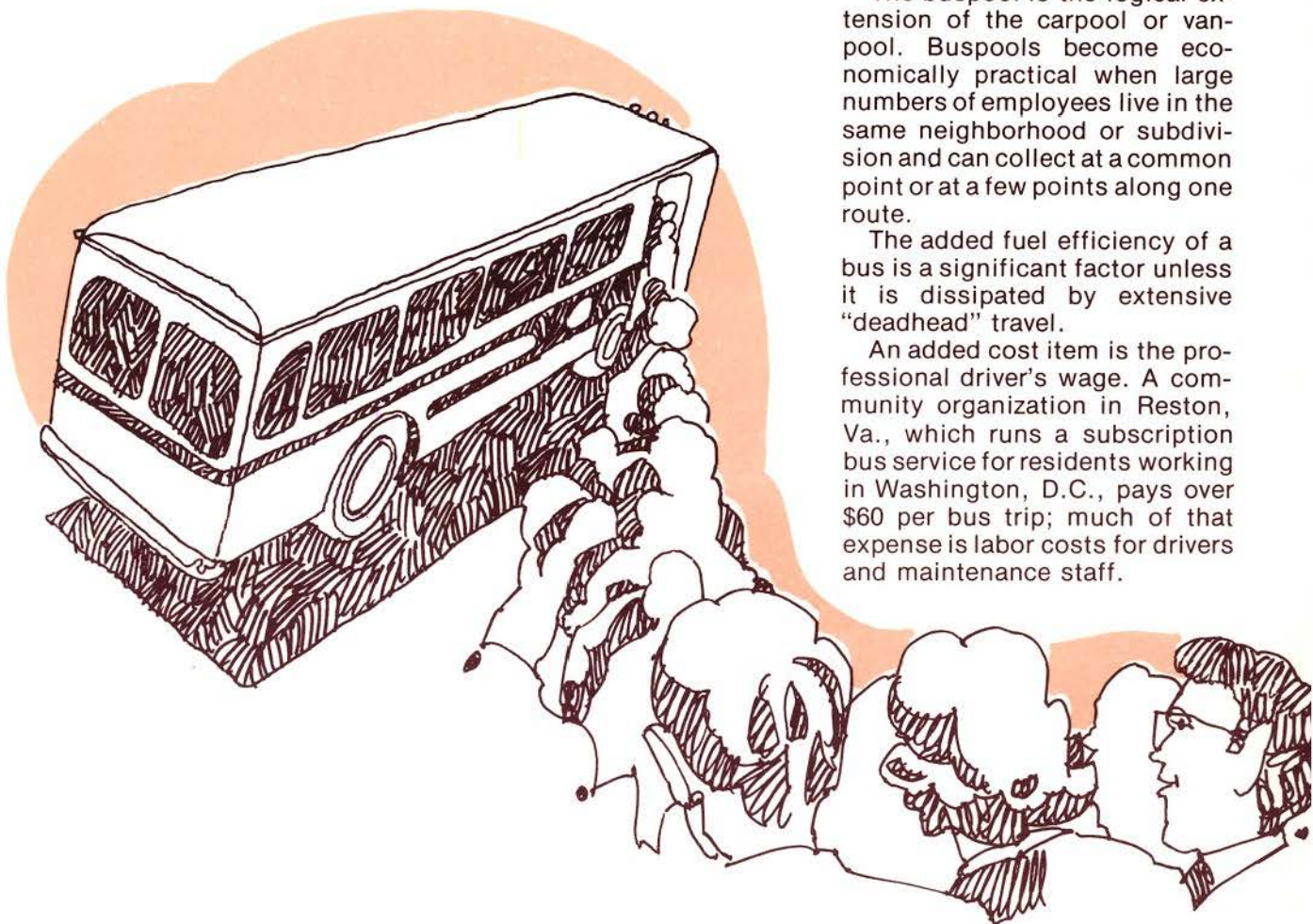
facilities, easing congestion, conserving energy and improving air quality. Sperry Flight Systems, General Mills, Corning Glass, and the Tennessee Valley Authority Credit Union have established successful vanpool programs modeled after the 3M experience.

BUSPOOLS

The buspool is the logical extension of the carpool or vanpool. Buspools become economically practical when large numbers of employees live in the same neighborhood or subdivision and can collect at a common point or at a few points along one route.

The added fuel efficiency of a bus is a significant factor unless it is dissipated by extensive "deadhead" travel.

An added cost item is the professional driver's wage. A community organization in Reston, Va., which runs a subscription bus service for residents working in Washington, D.C., pays over \$60 per bus trip; much of that expense is labor costs for drivers and maintenance staff.



Employer Organized

The most common form of buspool is the employer-organized buspool. The most frequent arrangement is the chartering of a bus from local transit, or an intercity bus company to serve one or more collector locations. Shopping centers, fringe parking lots, drive-in theaters and church parking lots are commonly used as collection points.

- GEICO uses employee buspools to serve several suburban shopping centers. Cost of operation is underwritten by the company. There is a minimal cost to employees but it is well below regular transit fares. In addition, the company has organized special buses that travel to outlying communities up to 60 miles away. For these greater distances there is a nominal charge to employees using the service. (Bus service is provided by an intercity bus company.) To avoid "dead-heading," buses are parked on GEICO property during the day. The drivers are employed by GEICO as well as by the bus company.
- ARCO in Los Angeles has encouraged formation of buspools from suburban cities to its downtown office. There are currently 14 buses operating over nine routes. ARCO subsidizes the program \$15 per month per rider. Passenger fares range from \$30.00 per month to \$45.00 per month (for a 40 mile trip). Buses are provided and operated by the local transit authority.

Rider Organized

The most publicized example of this is the commuter bus system operating from Reston, Va., to downtown Washington, D.C., a distance of about 20 miles.

A nonprofit corporation composed of Reston citizens charters buses from the local transit authority and collects revenues (\$1.50 per ride) through volunteer "busmeisters." Buses circulate through the Reston community and then go to several Washington locations.

Until recently, the system operated at a break even point. Currently, however, the program receives a 20 percent emergency subsidy from Fairfax County. Rapidly increasing wage and

operating costs have caused fare increases. Ridership has not diminished, however, since the higher fares continue to provide cheaper transportation than commuting by private car. Reston has supplemented its bus-pool program by leasing additional vans to serve suburban locations.



Transit Company Arranged

Local transit agencies may act as catalysts in bringing employers together for jointly sponsored buspools.

- Transit authorities in Los Angeles, Calif.; Portland, Ore.; Knoxville, Tenn.; and Omaha, Neb., have successfully worked with employers to provide vehicles and manpower for company sponsored subscription bus service.
- The Golden Gate Bridge Highway and Transportation District in San Francisco will provide bus service for any group of 30 or more riders. Rider costs are computed on the basis of operation of a full bus (51 seats). The District absorbs losses caused by a partially filled bus.

There are many kinds of possible ride sharing modes. Depending upon the size of the company, its location and the commuting needs of the employees, an employer should consider all types of pooling arrangements.

In defining the various types of pooling arrangements, little has been said about the two- or three-man informally organized car-pool which is, obviously, the work horse of ride sharing today. Although little needs to be said in defining it, its importance should never be underestimated. It is, and will continue to be, the mainstay of any ride sharing effort.

PUTTING THE PROGRAM TOGETHER

There is no one best way to structure a ride sharing program. Each situation is unique; each company or organization must decide its own needs, goals and objectives. The comparatively recent resurgence of interest in ride sharing has produced a new technology, a fast moving technology. Even so, some of the best and simplest methods for setting up and maintaining a ride sharing program have been around for years.

Although informal ride sharing has been going on for years, and more people commute in car-

pools than by conventional mass transit, good ride sharing programs do not happen overnight. They involve careful planning and work. More important they involve commitment.

Whatever the desired end result, the organizational steps are generally the same. The initial objective is to identify the goals to be accomplished. Once these goals are established, the next step is to look into some of the available tools for matching and promotion that have been developed by other organizations. Utilizing these tools could save

you the expensive process of re-inventing the wheel.

Although setting up a ride sharing program is 90 percent common sense, a review of the steps used by other companies will be helpful to anyone involved in a program of their own. Not all steps will apply to all situations. Select those methods and approaches which best fit your needs and objectives.

Finally, lack of commitment has been the death of too many ride sharing efforts. So once you decide to start a company ride sharing program, stick with it!



GETTING STARTED

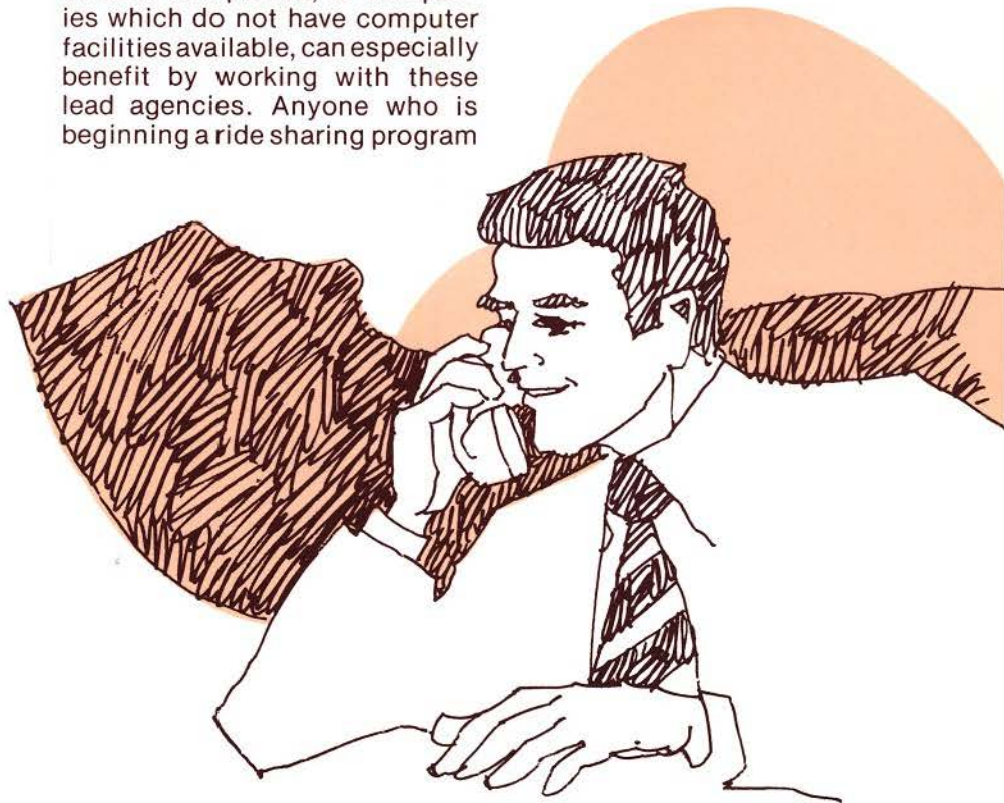
Once the decision has been made to begin a ride sharing program, certain basic decisions have to be made:

Find Out What Has Been Done

Most cities are currently served by a metropolitan or regional ride sharing agency. In most cities it is either the local council of governments, the local transit authority, or the state Department of Transportation. These agencies can be a great help in getting a ride sharing program started. They usually have a computer program available as well as standardized maps and matching forms. Smaller companies, or companies which do not have computer facilities available, can especially benefit by working with these lead agencies. Anyone who is beginning a ride sharing program

should try to take advantage of the services offered by these agencies.

If you do not know which agency is responsible for ride sharing in your area contact the Federal Highway Administration (FHWA) representative in your state capital. He will give you the name of the lead agency in your area.



Set Goals and Objectives

Decide why you need a ride sharing program and what you want it to accomplish. For example, you may want to reduce your company's demand for parking spaces, or reduce employee commuting costs. You may want to save energy, or simply make your company a better community neighbor.

To help set goals a survey of employees can be very helpful. An informal poll among employees to learn attitudes on ride sharing will show potential interest and potential problem areas that must be overcome.

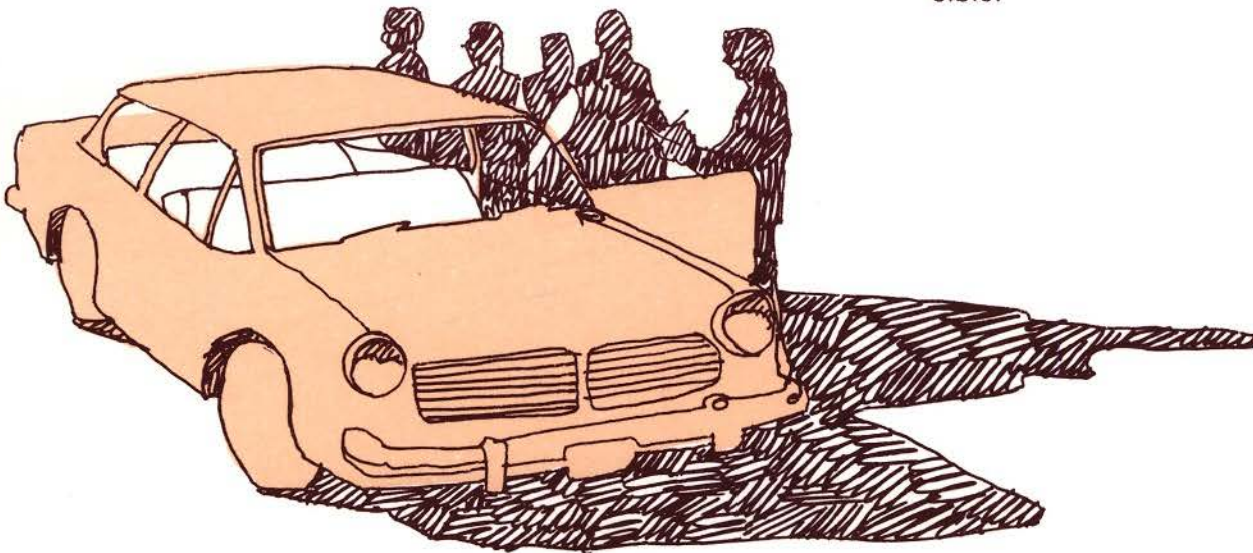
Establish a Yardstick for Measuring Success

At the very beginning some means of determining how well the program is working should be established. Too many ride sharing programs have operated with no way of knowing how well they are doing because, once the

matching forms have gone out, there is no feedback.

One approach successfully used by several companies is to designate carpool coordinators. Within each department, or group of employees, someone is designated to follow through once the matching has been completed to find out who actually participates.

Coordinators can be a very valuable part of any ride sharing program. Not only do they keep track of how well the program is doing, but they provide a personal link in the system to answer questions and help with problems. Coordinators should be identified and incorporated into the program as early as possible.



Allocate Budget

The benefits of ride sharing programs outweigh the costs involved. Any ride sharing program, however, is going to cost something. Cost should never be a prohibitive factor, but neither should it be underestimated. Matching, promotion and administering the program will all cost something. Although it is probably impossible to determine at the beginning how much each of the factors will cost, they can be estimated, and how much you are willing to spend should be determined in the planning stages.

Assign Personnel

Who is in charge of the program? Who will do the work? These questions should be answered as you lay out the program. Experience of other companies indicates that personnel

is the most common department to administer a ride sharing program. But wherever ride sharing belongs in your company, it should be assigned early and clear authority given.

The decision has been made to begin a ride sharing program; goals and objectives have been set, some criteria for measuring success has been established, people have been assigned to the program, and cost has at least been considered. Now to put the program together.



SELECTING A MATCHING SYSTEM

The type of matching system selected will determine how employees are enrolled in a program, and what forms will be necessary. The two basic categories of matching systems are manual and computer.

Manual systems may be self-service or operated by assigned personnel. Computer systems always involve control and matching through a centralized coordinator.

Although each company or organization must determine which type of matching system best suits its needs there are general guidelines that can help in making a selection.

Manual systems are suitable for small companies.

Where large numbers of employees are involved, computer programs generally prove the more effective.

Many companies have started with a manual system and later converted to computerized matching. Often it is quicker to implement a manual system, but when

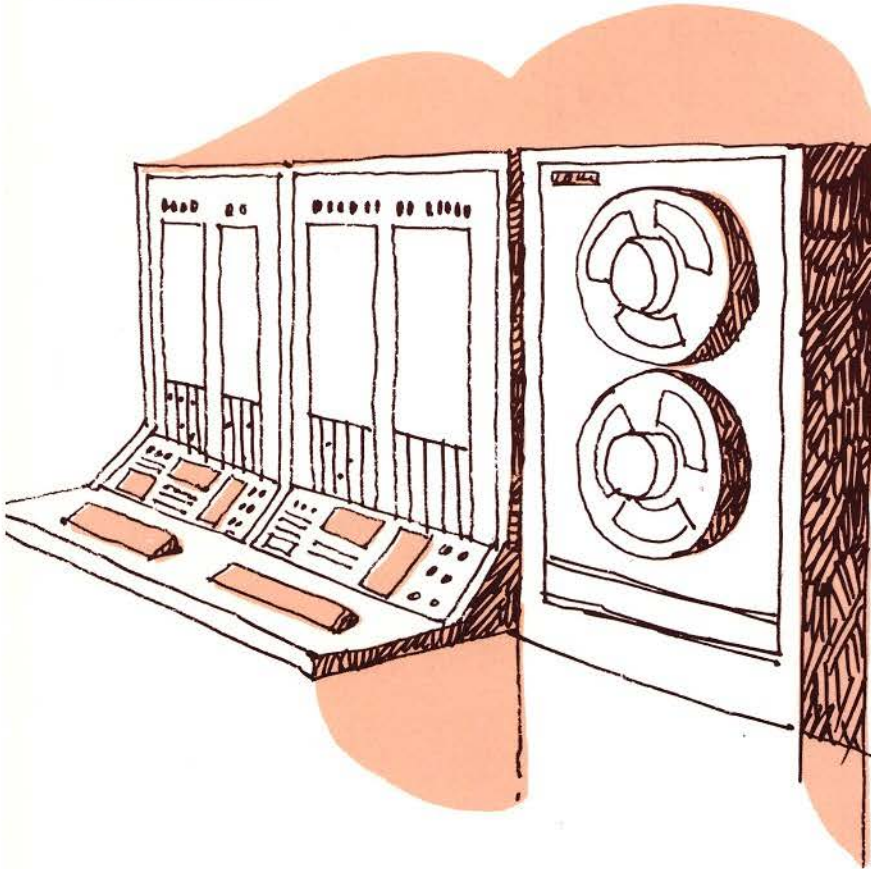
this is the case, careful attention should be given to setting up the program in such a way that conversion to a computer system can be easily accomplished.

Basic advantages of *manual* systems, particularly self-service systems, include:

- low cost
- quick implementation
- more personal involvement.

Disadvantages include:

- need continuing strong promotion and incentives
- without management assistance, system maintenance deteriorates
- locating errors occur often
- feedback is poor on what ride pools are actually formed, so that follow-up efforts are hard to organize.



Basic advantages of computer-assisted programs include:

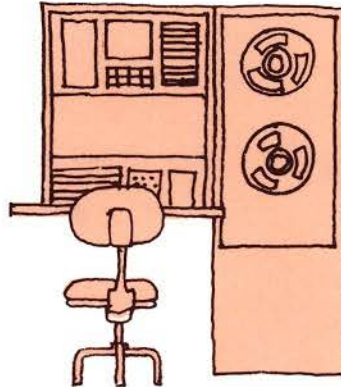
- quick matching of large volumes
- minimum employee effort for matching
- can be administered among a number of employers to widen the potential number of poolers
- errors are minimized
- provides list of potential matches to each employee
- simplifies follow-up on "no-matches."

Disadvantages include:

- higher start-up costs than manual systems (although per match cost may be less)
- company computer equipment may not be applicable to pooling operations, or may have limited flexibility to maximize matches
- not always applicable to smaller employers (under 750 employees).

Whatever matching system is selected, the following considerations should go into the decision:

- potential size of ride sharing program
- possibility of expanding program to fit into multi-employer or community-wide programs
- ability of available data processing equipment to handle pooling operation
- desired degree of control over the program
- availability of matching assistance through area-wide or regional ride sharing agency.



MATCHING TECHNIQUES

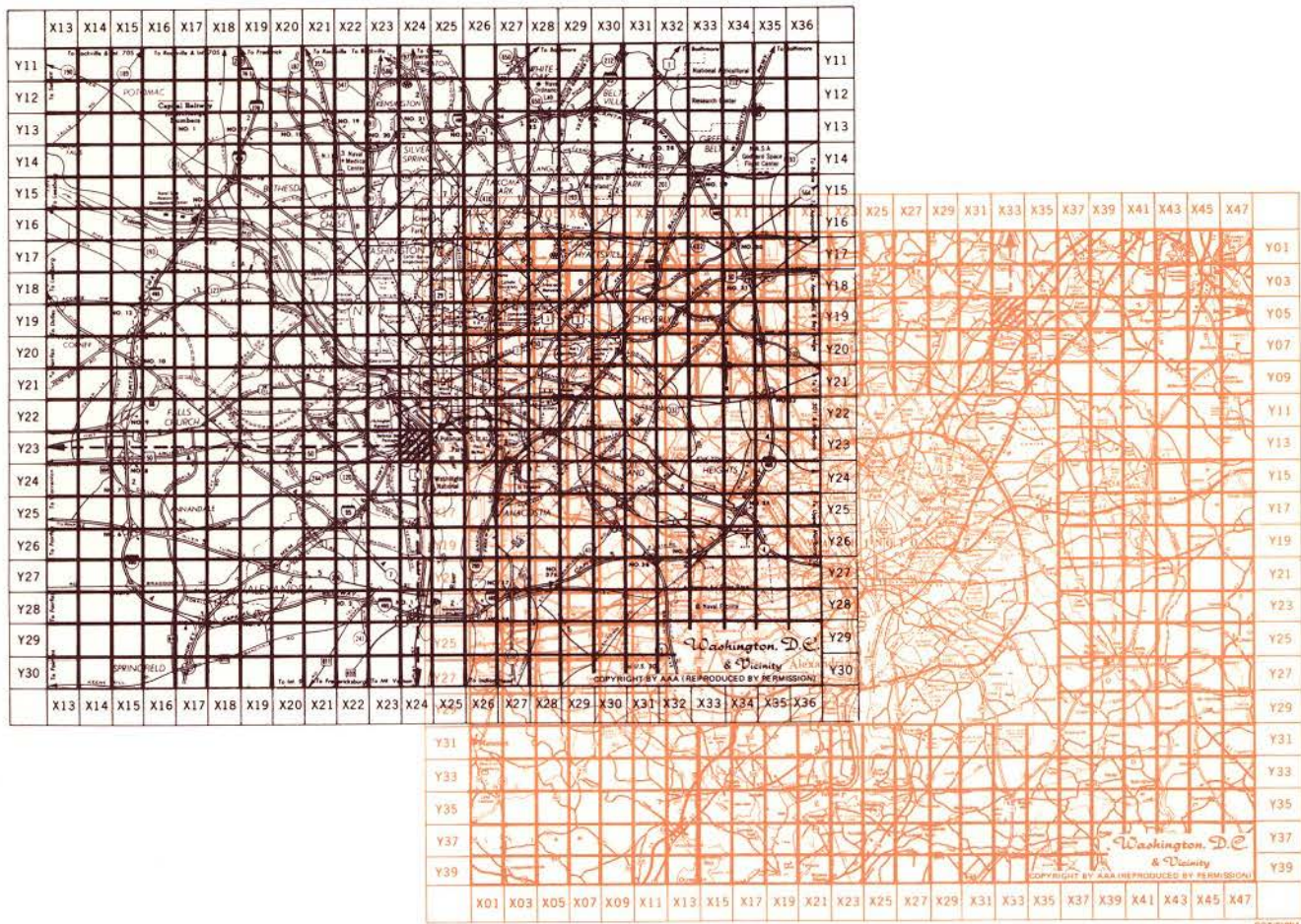
Ride sharing matching techniques involve five basic steps: (1) map selection, (2) geographic identification, (3) matching (either manual or computerized), (4) reporting, and (5) file maintenance.

Base Map Selection

Selecting the proper map is an important part of any matching effort. Maps should be easily read, accurate and cover a large enough geographic area to take in the residence of most employees.

A map that is difficult to read, or does not contain sufficient detail will confuse participants and may deter them at the very beginning from becoming involved in a ride sharing program.

The scale of the map used will vary depending upon the physi-



cal size of the geographic area covered. The scale of the map should be large enough to allow for clear identification of major streets and highways. In a large metropolitan area varying densities of population will be an important factor in map selection. Maps used should be of large enough scale to read major in-town streets, as well as more spread out suburban locations.

Too detailed a map will not reproduce well and may cause confusion.

Finding a suitable map should not be a major problem. The lead agency for ride sharing in your area should have standardized maps that can be used for your company's program. If there is no lead agency in your area, or if it does not have maps available, there are other sources you should consider. Utility companies, real estate guides and state or metropolitan highway departments often have maps that can be used for matching purposes.

Whatever map is selected, sufficient quantities should be available so that all who wish to enroll in the program will have easy access to a map for locating purposes. Ideally, maps should be given to each employee.

Careful attention should be given to duplicating the original map to insure greatest possible clarity and legibility.

Geographic Identification

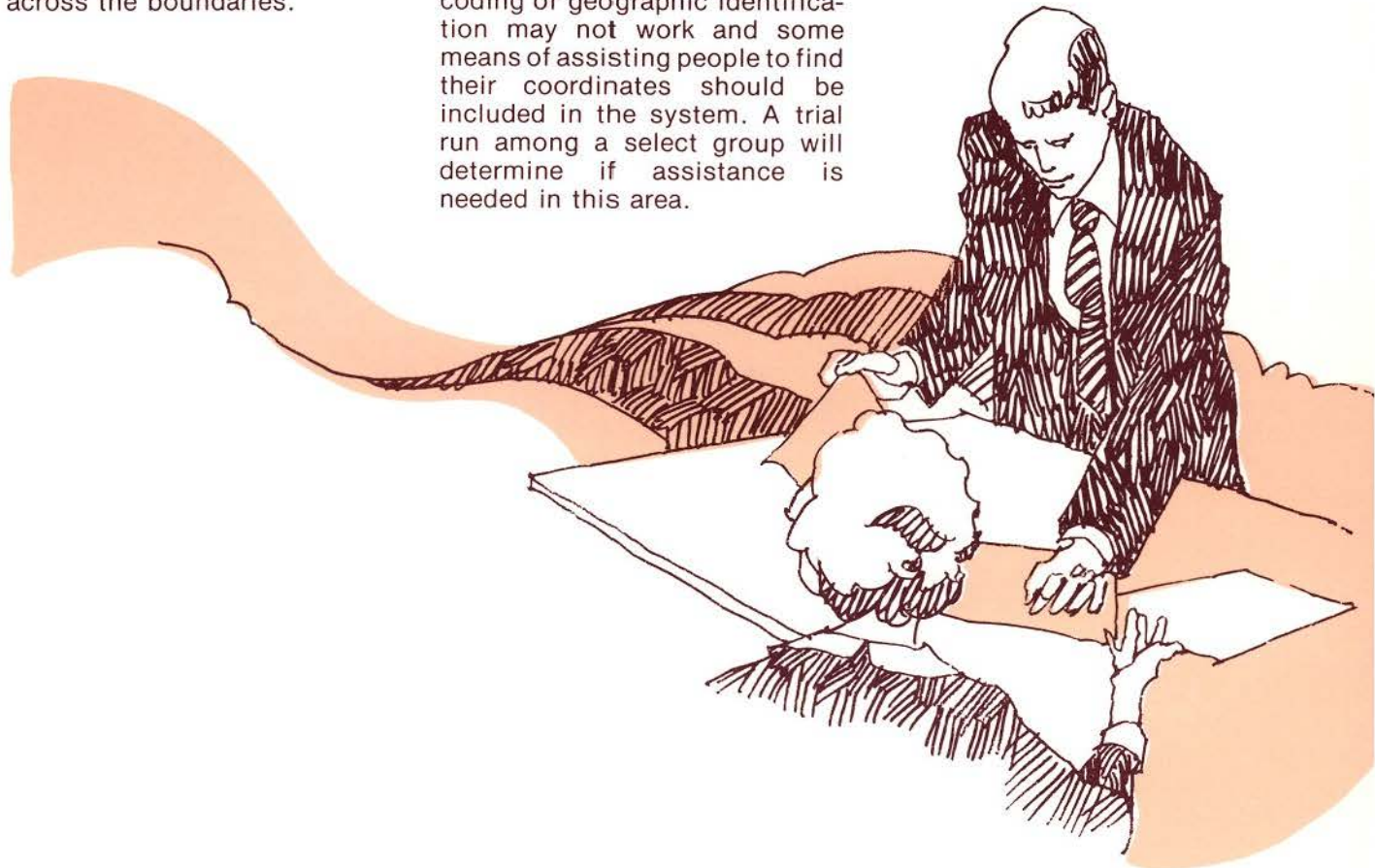
At the heart of any matching system is the method for identifying home and work locations of employees participating in the program.

The technique most often used is that of coordinates. The locations of each end of the commuter's trip are recorded as a pair of X-Y coordinates based on a uniform matrix superimposed over the area. Coordinates need not be exact for matching. For the purposes of most ride sharing programs locating an employee's home to the nearest half-mile is usually sufficient. There is no basic difference between "grid squares" and the more precise point coordinates techniques, except that use of grid squares or any other system of bounded areas may miss nearby matches which are located across the boundaries.

A similar technique sometimes used in matching utilizes zip codes. Although zip codes are readily available, they cover very large areas and may result in lists of matches that are long and cumbersome. Their irregular shape makes it virtually impossible to match people living in adjacent zip code zones even though some commuters could carpool more conveniently with someone in an adjacent zone rather than a person living a greater distance away in the same zip code zone.

Geographic coding of coordinates can be done by the employees themselves or by trained personnel. Experience of most companies shows that employees usually have little difficulty locating their own coordinates. Where this is a problem, self-coding of geographic identification may not work and some means of assisting people to find their coordinates should be included in the system. A trial run among a select group will determine if assistance is needed in this area.

Many programs manually code the trip-end coordinates with the aid of a trained staff. A small trained central staff working from good sets of maps and directories should be able to handle the geographic identification for most companies. The speed of coding will depend on the precision of the coordinates or grid used in the system, and the amount of self-coding employees themselves are able to perform.



Another geographic coding technique which can be used consists of standardized maps upon which the employee marks trip-end locations without attempting to determine his or her coordinates. The proper coordinates can then be added by trained staff either manually or by using an inexpensive digitizer, thus greatly increasing the rate of coding.

Geographic location is the primary consideration in matching employees for ride sharing. To this other non-geographic considerations such as working hours, desire to drive or be a rider and compatibility characteristics may be added, but these are generally considered after the set of records with common trip-ends has been established.

Two basic types of matching are found in most ride sharing programs. The first type is "one-end matching" in which one end of the trip, either origin or destination, is considered to be fixed for all respondents and only the other end need be matched. This is the most common form of matching for the single employer, or the office complex of several employers.

The second type is known as "two-end matching" in which no assumption of origin or destination commonality is made at the time of matching. Under this type of system people with various origins and destinations are all processed together and their applications must be properly ordered for efficient matching.

The goal of the ordering is to reduce the file to groups of records with a common end point (or area) so that the "one-end technique" may be applied within the group. Two-end matching programs are more general, and more suitable for regional programs.

When less precise coordinate systems are used (e.g., grid squares) the question of "common" location is simplified since comparatively large groups will be located within the same coordinates. When more precise systems are used fewer applicants will have the same coordinates.



Programs utilizing precise coordinates must use a search routine to establish the "nearness" of commuters' trip-ends to each other. The maximum distance to be considered, the direction of the search and the number of matches to be found before the search is ended must all be considered.

After the basic set of geographic match records has been assembled and the other matching considerations satisfied, the information is ready to be passed on to potential poolers.

Matching-Manual Techniques

There are several satisfactory self-service manual systems that can be used for matching employees. Many companies have never gone into the intricacies of computer matching, and still have impressive results. GEICO uses informal, self-matching techniques combined with a strong parking incentive at its home office.

A. Roster System

The roster system is the simplest, least formalized system. It works well for smaller companies of under 100 employees. A roster of personnel is prepared which includes the following information:

- Name
- Address
- Work hours
- Contact telephone number
- Area of residence (zip code, grid square, etc.)

It is advisable to post the roster in a location convenient to all personnel. At the same time employees should be encouraged to contact fellow employees living near them to explore the possibilities of forming a carpool.

It may be helpful to post a local area map near the roster to facilitate area identification. If the area covered is large, you may wish to add some form of zone identification such as zip code boundaries, or grid squares.



B. Pin/Number System

A pin/number system can be either self-administered or employer-administered through periodic checks for matches. It can handle 500 to 1,000 employees successfully.

The ingredients of the pin/number system include:

1. Locator map. A locator map depicting at least primary and secondary roadways of the metropolitan area.

If there is an area-wide carpool agency in your city, you should see if they have maps available. In most cases these maps will already have a grid on them. Using

a uniform grid could make future coordination with other programs much easier.

2. Numbered pins. Colored head map pins with coded numbers attached to assist in visual location of potential poolers.

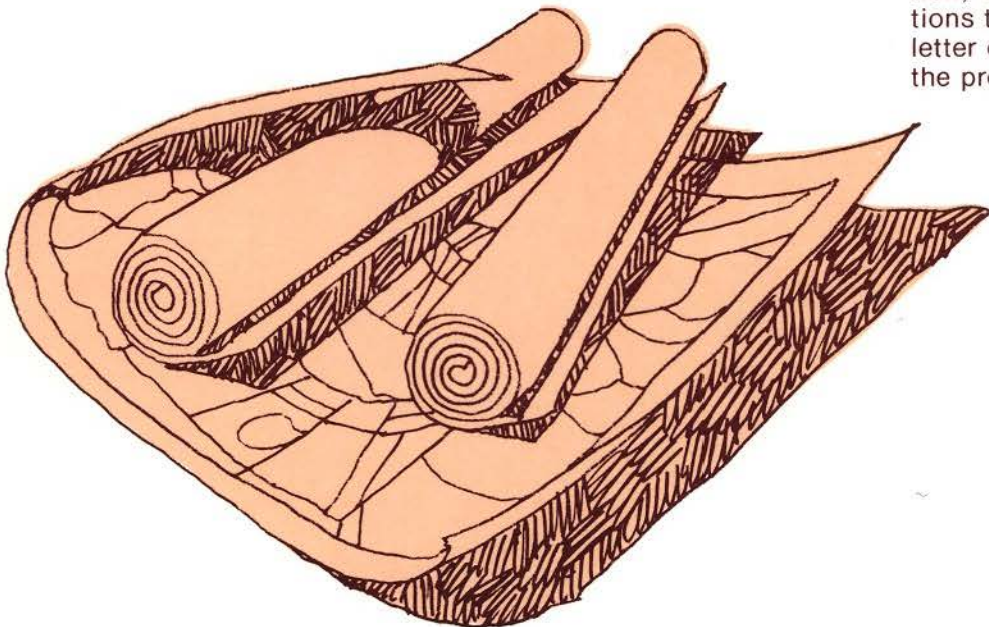
3. Request forms. This form is used in a self-administered system. Similar to the matching form used by computer systems, the request form should contain information necessary to assist in matching potential poolers:

Name
Address
Contact telephone
Employment department or area
Hours of work
Participation i.e., share driving, drive only ride only, etc. (optional)

As in the case of selecting a map, the regional carpool coordinator in your area could possibly provide you with existing forms. This will also be helpful should you wish to enter into a cooperative program in the future.

Provision should be made on the form for origin-destination grid numbers. Where every employee works at the same location, the coordinates for the work location should be preprinted.

The pin/number system can be operated on either a self-service or team operated basis. In a *self-service system* a master roster with blank lines for entry of name, address and contact telephone number is posted in a central location adjacent to the locator map. Lines should be numbered to correspond with the numbered pins. Post a set of instructions along with the roster, map and numbered pins. In addition, distribute a set of instructions to employees along with a letter of introduction explaining the program.



The instruction should explain, to employees who wish to participate, to first complete the information on the roster and then select a pin which matches the number of the roster entry. Next the employee sticks the pin on the street and approximate area where he or she resides. Then he or she identifies pins which appear in the same area or along their route to work. Referring back to the roster, the employee then contacts the persons in his area for carpooling.

If employees fail to match with any likely prospects on the pin display they should check the

board periodically. When a ride pool is formed, pins should be removed from the map.

The second method of using the pin/number system is with assigned personnel. The operation of the system can be performed by one or two persons. Additional people may be required for the matching phase and the preparation of the potential match lists. Additional help might be needed not so much be-

cause of the volume of work, but more for speed of response during a start-up phase.

The map, pins, and matching information are set up in a central work area. The matching information is compiled from request forms distributed to employees. Once these forms have been collected the administering team performs the locating and matching of employees and distributes lists of matches to potential poolers.



C. Locator Board/Pigeon Hole System

The pigeon hole system works basically the same way as the pin/number system. Instead of showing the home location with a pin on a map, however, the employee enters his personal information on a card, identifying his home area on the cards using grid coordinates from the locator map. The information card is placed in a pigeon hole marked with the same coordinates as his home. To find matches he searches the box for cards of other employees living in his area.

The same basic steps are followed in the team operation of the pigeon hole system as in an employer-administered pin/num-

ber system. The chief difference is that the carpool coordinators retrieve cards from various pigeon holes. The system is for the most part self-sorting, which simplifies the task of preparing lists to be distributed to potential poolers.

Editing of the information cards is essential to catch errors in coding home locations. In some cases, geographic coding can be handled by the administering team, in which case interested employees simply fill out basic data as described earlier. The administering team then sorts and matches the cards.

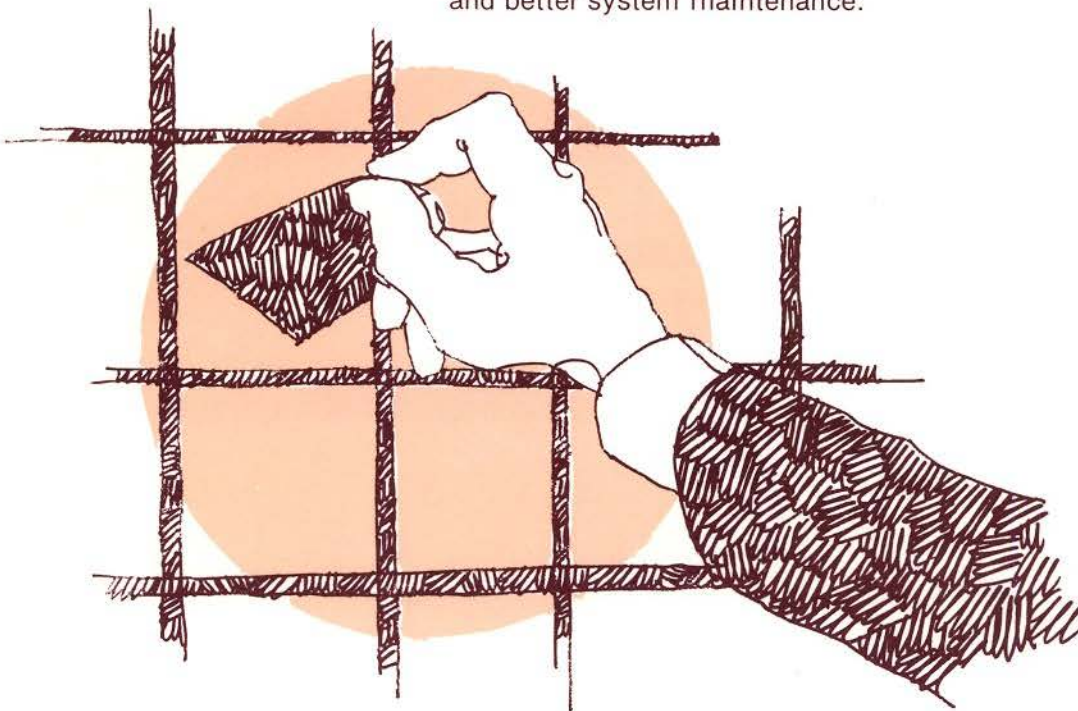
The advantage of team operation of the board is to eliminate errors in coding and to speed up the response of potential poolers once the matching has been completed.

Team operation also permits easy addition of new employees and better system maintenance.

Matching-Computer Techniques

The computer has proven a valuable new tool in getting people together for the purpose of ride sharing. Development of computer programs has been under way for several years by such groups as the Federal Highway Administration (FHWA) in Washington, D.C., and Operation Oxygen in Los Angeles, Calif. Most metropolitan lead agencies for carpooling have adapted or developed computer software for local use and these are often available for use by other organizations.

The result of these activities is that a company or organization wishing to implement an auto-



mated matching program should not be faced with the problem of developing its own software, but should be able to select from existing programs one that can be easily adapted to its particular situation and computer equipment.

Smaller companies, or companies lacking availability of equipment can quite possibly have their matching handled for them by the local lead agency for carpooling, or a larger company.

The computerized approach to successful carpool matching is usually based on either a matrix grid system, census tracts, or traffic analysis zones. The home and work locations of participants are input into the program by manual identification or through automatic address coding.

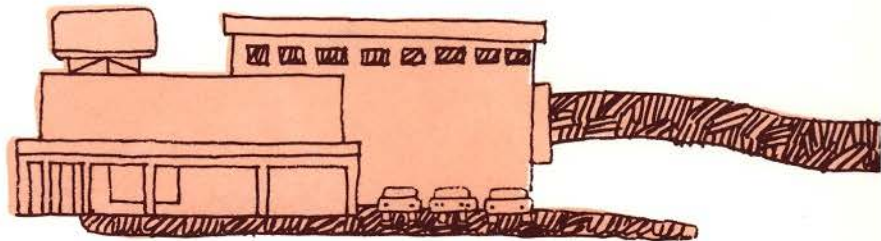
A computerized program based on a dual density grid system provides a comprehensive approach to carpool and buspool matching. The input typically requires an applicant's name, home and work locations, and his working hours.

Examples of a typical applicant data form are shown on page 32. This type of program can handle multiple work locations as well as multiple work times. The FHWA has developed a program utilizing this approach. Many local agencies and companies have successfully modified this program for local use.

To serve a mix of developed urban area and surrounding semirural region, a provision in a computerized matching system for two grid sizes is very useful. This technique provides a smaller area grid in the well-developed areas and a larger area grid in the less-developed surrounding areas. The semi-rural surrounding areas should be in-

cluded in the matching process since commuters living 20 or more miles from work rarely have access to public transportation and due to the time, boredom, and cost of driving individually, represent a group very easily attracted to pooling.

The density matrix uses a matrix to list only the number of persons in all grids sharing the same time, origin and destination needs. By visual review, closely grouped grids with 40 or more persons sharing similar needs can be identified for potential buspools. Smaller groupings can be identified for potential vanpools. An example of this matrix is shown on page 35.



The Connecticut Department of Transportation's computer program for carpooling utilizes the planning department's automatic address coding program in locating addresses in statewide traffic analysis zones. The address coding capability automatically assigns an address to a specific area eliminating the manual assignment of an address by either the applicant or a central office staff.

In theory, the traffic analysis zone is a natural for carpool and buspool matching, as its size varies with the number of trips it generates. Also, the travel analysis zone generally does not cross major barriers, such as rivers, parks, and major freeways.

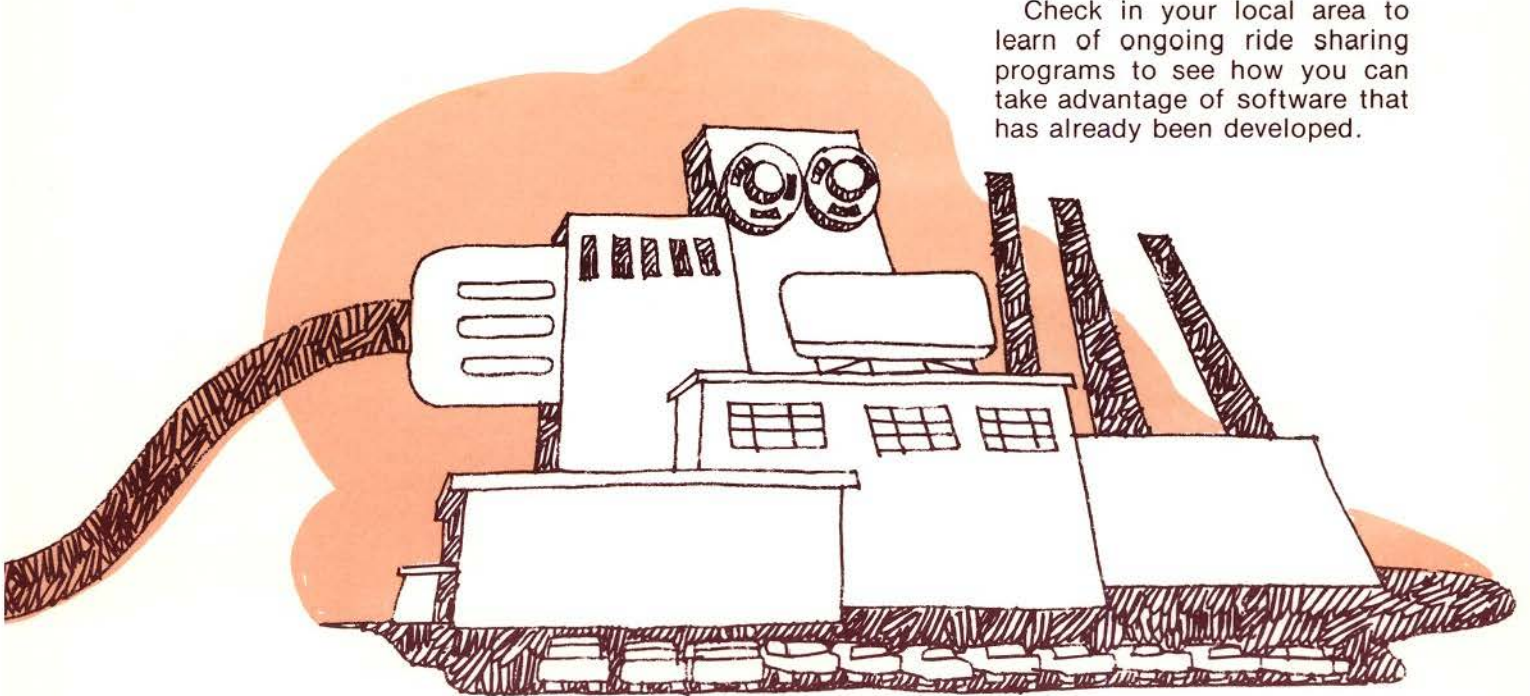
The Bureau of the Census matching program is an example of a program based on census tracts. Through the use of automatic address coding, participants are assigned to census tracts. Matches are made by a search of a participant's home census tract and surrounding

tracts if necessary for a predetermined number of matches.

The choice of a specific computerized program will depend to a large extent on the availability and accessibility of certain factors such as Census DIME/GBF reference files, computer capability, and degree of matching sophistication required.

The systems discussed here are representative of the various successful approaches that have been used in developing matching software. It is by no means a complete listing and merely serves to define some of the various approaches.

Check in your local area to learn of ongoing ride sharing programs to see how you can take advantage of software that has already been developed.



The FHWA Matching Program

The following discussion is intended to afford persons interested in computerized carpool/buspool matching programs a brief description of the FHWA matching program. A complete user and program documentation, as well as the program itself, is available.

The FHWA program is written in American National Standard COBOL and thus should be readily transferable to environments other than the IBM 360/65 (OS) under which it has been developed and tested. The version now available is considered the first generation in what is expected to be a rapidly evolving program area. The matching logic is quite simple and some potential users may find that it is not applicable to their situation. One should be cautioned, however, against placing unwarranted importance on having a sophisticated matching process. A very simple process can be extremely effective if carried out within an ambitious and comprehensive overall carpool/buspool program.

A. The Grid System

The matching process is based on a grid system overlaid on urban area maps to which home and work locations are manually coded, usually by the applicant himself. The X and Y numbers of the home and work grids are used in the matching process. An example of such a grid system is shown

on page 22. Note the following with respect to this system.

1. Overall boundaries must be rectangular and grid cells should be square for optimum use in the program, but they, too, can be rectangular.
2. Only integer values may be used for X and Y coordinates.
3. For 1 Density Grid System: X and Y coordinates are numbered consecutively from 01 to a possible maximum of 99, although the maximum coordinates must be odd integers.
4. For 2 Density Grid System:
 - a. Two grid densities may be used, but the cells in the outer grid system must be twice the dimensions of the inner grid system, as in the

example on page 22. This affects a density ratio of 4:1.¹

- b. The inner grid system may be placed anywhere within the outer system, not necessarily as shown in the example.
- c. The lowest X and Y inner-grid coordinate values must be odd numbers.
- d. The highest X and Y inner-grid coordinate values must be even numbers.
- e. The X and Y outer-grid coordinate values must be odd numbers with a possible maximum of 99.

Within these limitations, the user can adapt the grid system to the local situation as desired.²

¹The inner grid, (for instance, 1 sq. mile) is intended to allow for higher density areas, such as downtown, and completely developed residential areas while the outer grid (for instance, 4 sq. miles) is applicable to sparsely developed or rural areas.

²When selecting the orientation of the grid system, the user should consider any benefits that could be derived from conformance with the major axis of existing coordinate systems. For example, the possibility of using automatic address coding in the future may make it desirable to align the grid system with one of the coordinate systems used in the CENSUS DIME (Dual Independent Map Encoding) files. These systems are: (1) State Plane, (2) Mapset Miles, and (3) Latitude and Longitude.

B. The Program Package

There are four segments in the program, any or all of which may be called for by the user in any one run. These are called:

1. "Update" - builds or updates a basic sequential file of participants in the matching program. Edits and prints list of rejected data cards.
2. "Process" - processes the basic sequential file into files specially indexed to facilitate the operations called for in the remaining two segments.
3. "Lists" - produces the matched output under any one of three options:
 - a. "Master" - produces a master matched listing of all participants for retention and use of the operating office.
 - b. "Mail" - produces individual listings for all participants, showing their potential carpool mates, to be "mailed out."
 - c. "Requests" - produces individual listings for *selected* participants as requested by the user. This option would most frequently be used to produce a listing for a newcomer without having to use the "Mail" option which

would produce lists for *all* participants.

This can also be used to produce a list of potential carpool mates along the route of a participant rather than near his home grid. This is done by specifying each grid cell that his route passes through.³

4. "Density" - produces graphical home grid print-

outs, selected according to reporting or departing time and work grid, showing total participants in each home grid cell. This indicates visually the distribution of trip beginnings and their densities. It is primarily useful for examining possible vanpools and buspools or as an aid to study conventional bus routing and scheduling.

FEDERAL HIGHWAY ADMINISTRATION Data Form For Carpool/Bus Commuter Program

INSTRUCTIONS: PLEASE COMPLETE ALL QUESTIONS AND RETURN ONLY THIS PAGE WITHIN ONE WEEK THROUGH INTEROFFICE MAILS. PLEASE CALL 60210 IF YOU HAVE ANY QUESTIONS.

CARD NO. 1

1 A SOCIAL SECURITY NUMBER

12 NAME (FIRST AND LAST)

36 ADDRESS (NUMBER AND STREET NAME)

59 (CITY) 73 (STATE) 74 76 (ZIP) 80

CARD NO. 2

1 A HOME GRID NUMBER (See Maps)

12 x y 14 ← PLEASE LOCATE YOUR RESIDENCE CAREFULLY ON THE CORRECT MAP AND PLACE THE GRID NUMBERS HERE.

16 x y 18 ← PLEASE LOCATE YOUR WORK GRID CAREFULLY ON THE CORRECT MAP AND PLACE THE GRID NUMBERS HERE.

REPORTING TIME 20 : 22 : 24 Hrs. Min. A/P

DEPARTING TIME 25 : 27 : 29 Hrs. Min. A/P

(Example: Show 8:00 A.M. as 0 8 : 0 0 A and 4:30 P.M. as 0 4 : 3 0 P)

DO YOU DESIRE TO BE INCLUDED FOR CARPOOL MATCHING? (30)

YES NO (REMEMBER THAT A "YES" ANSWER PLACES YOU UNDER NO OBLIGATION)

35 OFFICE PHONE 39

45 ROOM NUMBER 50

56 ROUTING SYMBOL 61

³This would be a fairly cumbersome process to apply to a large number (or all) participants since each grid cell on the route must be externally determined and input.

C. The Matching Logic

This section describes the logic used under the "Lists" segment, "Mail" option, which is the major matching operation. The "Requests" option uses a similar matching logic in the normal case where a newcomer is being processed.

For each participant, a listing is produced which is determined according to the following process:

All participants who live in the same home cell, work in the same work cell, and arrive and depart within a specific range of time are identified. If there are less than eight participants in a home cell⁴ all participants in adjacent home cells (usually eight cells) who work at the same work cell are added to the list. Otherwise, only the basic home cell with at least eight participants is listed.

With respect to this process, the following should be noted:

1. Multiple work places are recognized and matched separately.
2. Multiple work times are recognized in the match-

⁴This number is set at eight in the current program version. It is not an input parameter but could be changed by a substitution of approximately 10 cards in the program deck.

ing process. The user can specify a range (e.g., plus or minus 15 minutes) and listings produced will include matches within this range for each person. Specific times can be matched separately by maintaining separate files.

3. The search at the home end extends only to the adjacent cells (usually eight)

and all adjacent cells are taken at once if the minimum number is not reached in the home cell. There is no graduated expansion. There is no expansion beyond the immediate adjacent cells.

4. There is no search at the work end. Each work place cell is matched as an independent unit.



D. Planned Improvements

In the near future, the present carpool matching capabilities of the program will be expanded to produce a carpool and transit information system. The carpool section of the new program will include as a minimum, the following improvements:

1. Adaptation of computerized address coding using the Census Bureau DIME files and ADMATCH program to eliminate the manual coding to cells required in the present program. It should, however, have a user option to bypass the automatic coding feature so that manually coded input can also be used.
2. Inclusion of an "along-the-route" matching option that is more highly automated than is possible in the present program.
3. Inclusion of a work-end search similar to the home-end search.
4. Improvement of the home-end search to expand first to participants in adjacent cells having the same work time, then to consider earlier and later work times if a minimum number of matches is not met.
5. The ability of the "Mail" option to be run only for selected times, employers, and/or work cells, instead of all times, employees, and work cells as in the present program.
6. A change from a sequential listing of the carpool master file to an alpha-

betical listing by first and last name.

7. The ability of the "Mail" option to sort and group by agency, department, or division code before printing the individual lists.
8. The ability of the "Master" option to print the adjacent grid cells for empty grid cells as a reference for newcomers to use when checking the master list. This ability should be provided as a secondary option.

9. The ability of the "Density" option to produce matrices at user-set time intervals.

The transit information section of the program will provide the commuter with route numbers, boarding and alighting points, scheduling and other identification information. This new program is intended to provide a commuter with as much information as possible about available ride sharing opportunities.



E. Input Description

The input into this program consists of two data cards per participant and seven parameter cards. The data cards require information such as the participant's name, address, social security or employee number, home and work grid coordinates, reporting and departing times, desire to carpool, and an optional area where additional data such as home or office telephone number, office room number, and mail routing code can be included for use in the output listings.

The parameter cards permit the user to select program options that will be applicable to particular situations. Such decisions as to the size of the grid system, whether to use the one or two density system, the type of output list (master, mail or requests) and the output format are programmed with these seven parameter cards.

F. Output Description

The output from this program can take two forms; grid lists and a grid density matrix. The grid lists include a master list, mail list, and request list. Each list serves a different function and thus the information is output in a slightly different format.

For each designated work cell, the *master* list option will print the following information for all participants having this common destination: name, address (including city, State, zip code), home grid coordinates, arrival and departure times and any in-

formation appearing in the optional input field. The output will be sorted according to work and home grid cells, and arrival and departure times.

The *mail* list contains the same information as the master list, except that participants will be matched according to arrival and departure times. A participant will be matched with all other participants in his home grid cell having a common work cell and an arrival and departure time within a predetermined range. An address block will be printed on the top of each participant's list, giving his name, address, and any other requested information, such as an office mail routing code, that has been recorded in the optional input field. A message area can also be added at the end of each individual's listing to convey special instructions or messages. The

NUMBER OF PERSONS IN EACH HOME GRID REPORTING TO GRID X24Y21 AT 9:15 A.M.

5	7	9	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
														1					
								1	1	1	1	1	2						
			1	1	1						1					1			
		1			1	4	1	7	2										
				1	1	1	1	1	1		4								
					1	2		1	1	6	3								

REPORTING

output can be made to sort on any item(s) in the optional area.

The *request* list is identical in form to the mail list. This option is used to obtain either additional mail list copies for certain participants (e.g., newcomers) or "along-the-route" listings as described earlier.

If, during the printing of any of these three types of lists, there are any home grid cells with less than eight participants residing within them, the information on the participants residing in the adjacent grid cells (usually eight) will also be printed. This will give a participant in a low density area a suitable size list of participants living near him.

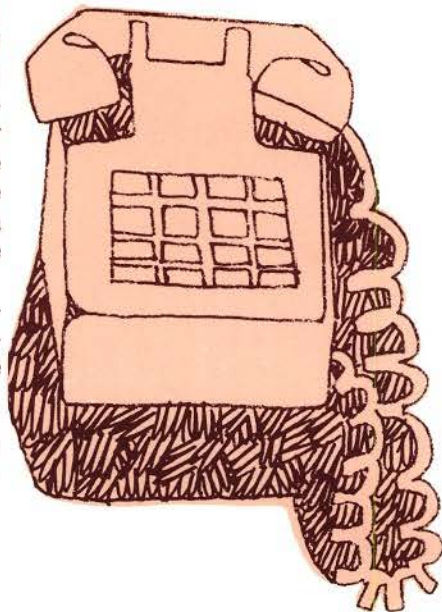
The other output form, the grid density matrix, will give a visual representation of the number of participants residing in each home grid cell who have a common work grid and reporting or departing time (all times are rounded off to nearest 15-minute interval). An example of a density matrix is shown on page 35.

The user and program documentation, along with the computer program itself are available from the:

Chief, Urban Planning Division
Federal Highway Administration
Attention: HHP-26
Washington, D.C. 20590

Anyone interested in obtaining the FHWA Carpool Matching Program should send a magnetic tape of at least 300 feet. The program load module and source deck can be copied onto a 9-track tape with 800 or 1600 bpi. The source deck can be copied onto a 7-track tape with 556 or 800 bpi. Please specify the track size and number of bpi.

There is no charge for this service to either public or private agencies or groups who will use the program as a nonprofit public service, since this is in the public interest. All others must pay a \$40 labor and computer time charge to reimburse the government for copying each tape.



The purpose of a reporting system is to inform employees of other people with similar travel patterns.

The primary report is addressed to the individual and carries necessary information on potential poolmates and methods of contact. The report must draw a balance between the employee's desire for confidentiality and information useful to potential poolmates. At a minimum, the list should contain the name, contact phone number (work or home depending upon preference) and working hours of those to be contacted. For convenience this report could be designed either for direct mailing or insertion into a window envelope.

In addition, this report should include further information such as the phone numbers of transit or taxi agencies, locations of park-and-ride lots, or transit route information for the user's particular area. A final requirement is a clear statement indicating what steps the recipient should take to contact others on the list provided.

FILE MAINTENANCE

Entry of individual employees into an automated matching system is carried out by establishing a record containing the employee's name, trip-end locations, telephone numbers and working hours. Other information such as travel pattern information (e.g., mode now used, desire to drive or ride, frequency of overtime work, etc.) or file maintenance date (e.g., entry date, date of last transaction) may also be included.

In a computerized system this data record is created by key-punching from a form completed by the individual commuter. Other techniques such as mark-sense forms, optical scan or push-button telephone entry are also under investigation. In manual systems, various standard filing systems can be used.

After the initial entry of a given employee's record into the system, file maintenance functions should be periodically performed. These include edit checks on the data for both entry accuracy and logical consistency. The maintenance module should also enter records into

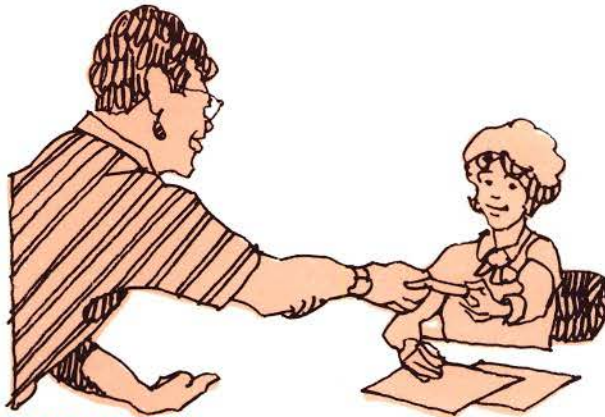
the proper location on the file, depending, of course, on the programming structure used, and keep track of other file structure information such as record pointers used in the system.

If you desire to maintain the file on a current basis over a long period of time the file maintenance module will also serve to



update records and account for changes. The module should be able to drop people from the system and periodically report those for whom no transactions have been reported for some time, say two years. This module would also handle changes of residence, working hours or place of employment. This latter feature is recommended in a semi-permanent system to avoid expansion of the file with unneeded data. If a monitoring system is established to follow up on the carpool program, the file maintenance module would also keep track of those who have formed pools and those who are still searching for information to be used in later matches.

In summary, some level of file maintenance will be required even for the simplest systems. The degree of sophistication will depend on decisions related to program scope, duration and monitoring.



CONCLUSION

The selection of a specific matching system by any given employer will depend on the resources committed to the project, the number of participants, the equipment available and the degree of coordination desired. It is helpful if all groups and agencies in a metropolitan area adopt the same program or at least a common data format and a uniform coordinate system.

It should not be necessary for most companies to develop their own software except in unique situations. Sufficient work has been done and is under way so that existing programs will suffice for almost all ride sharing programs.

SELLING THE PROGRAM

"You can lead a commuter to water, but you can't make him pool." Anon.

A successful carpooling program is dependent upon many different factors. One key is the average person's attitude towards his car and how he commutes. The security, comfort and privacy of driving to and from work alone has become deeply ingrained in most people, and overcoming this habit will require a considerable change in attitude.

Today the average auto occupancy for commuter auto travel on a national basis is 1.4 persons. Out of every 100 cars on the road, 74 have only one occupant.

Existing attitudes of commuters are reflected in a recent survey conducted for the U.S. Department of Transportation. People who currently drive to work alone were asked if they considered themselves potential or unlikely poolers. Sixty percent of those who drive alone considered themselves unlikely poolers. Of the total number of people interviewed, 74 percent currently drive to work alone.

In another study conducted among 2,000 commuters on the Hollywood Freeway, people were asked to rate various factors, on the basis of importance, in their decision whether or not to carpool:

Financial: the economics of ride sharing is perhaps the single most important persuader for joining a carpool.

Self-reliance: the reluctance to be dependent on others, or to have others be dependent on the respondent was a strong negative factor.

Privacy: shares top billing with self-reliance for strong negative factor.

Enjoyment of driving: a neutral factor; whether or not a person likes to drive does not seem to affect his decision to pool.

Traffic congestion: again a neutral factor; everybody talks about traffic congestion, but nobody seems to do much about it.

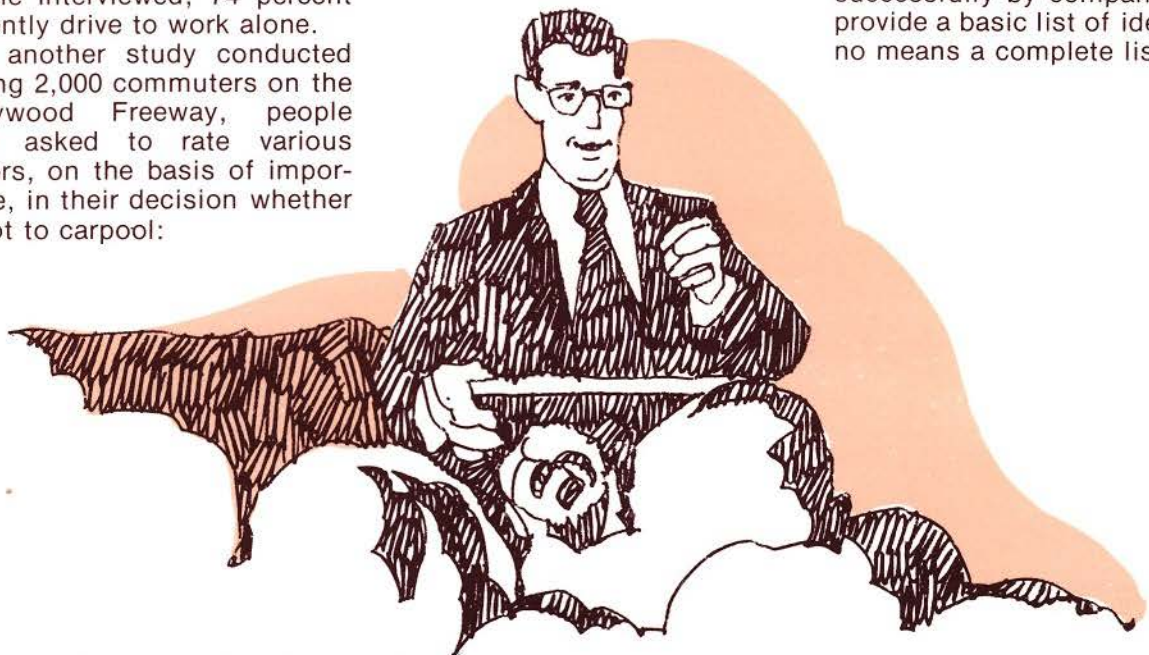
Social duty: both responding groups agreed that ride sharing could effectively combat air pollution, conserve energy, and reduce congestion, but neither group felt it was a civic obligation to pool it.

Whatever attitudes exist, they can change and be changed by a carefully planned and executed program of public information and promotion.

The U.S. Department of Transportation's "Double Up, America" campaign is designed to accomplish that objective. Outside events such as short fuel supplies or rising inflation will obviously help change attitudes. In promoting ride sharing, it is important to sell the benefits of pooling such as economic savings. Equally important, however, are other incentives such as preferred parking that can be provided to overcome resistance to the real and perceived disadvantages of ride sharing.

Some of the advantages of carpooling are inherent and need only be publicized. Most incentives which encourage carpooling must be created *and* publicized by the employer.

We have broken the list of incentives that employers and sponsoring organizations can create into eight categories. These incentives have been used successfully by companies and provide a basic list of ideas—by no means a complete list.



INCENTIVES AND MOTIVATION

Financial

Shared costs. The carpooler is ahead of the game right off the bat by sharing commuting costs. A 10-mile commute trip based on 1972 figures costs \$2.64. Shared four ways it is reduced to \$.66. In a van it is as low as \$.37.

Parking. On a national average, only seven percent of commuter drivers pay for parking: 76 percent park in employer-provided spaces.

For that unlucky seven percent parking costs can be reduced or

diminished. Employers who subsidize parking costs might consider altering the subsidy system to favor carpools. Prudential Insurance Company pays \$2.50 toward daily parking for carpools.

Vehicle costs. Many companies make company cars available for ride sharing during non-business hours. This arrangement can be very appealing to employees. General Motors recently used their fleet cars as an incentive for carpooling. In fact, GM issued a statement requiring that fleet cars could not be used for commuting unless they were used as carpool vehicles.

Where companies offer either subscription bus service or

leased vans for employee commuting they are providing a strong financial incentive to get people to pool. ARCO in Los Angeles is able to offer employees comfortable commuting by subscription bus at \$.04-\$.06 a mile. Vanpool programs, such as ones currently in operation at 3M Company and at the Tennessee Valley Authority provide door-to-door commuting at \$.02-\$.07 a mile.



Employer subsidies. In Oregon, the Port of Portland pays 5-man carpools \$10 a month. ARCO underwrites its bus program at the rate of \$15 per rider per month. Phoenix Mutual Life Insurance Company in Hartford, Conn., pays employees \$1.00 for each day they do not drive to work.

Prizes and bonuses. Walker and Dunlop, a real estate firm in Washington, D.C., gives trading stamps to carpoolers and transit riders. The Gillette Company in Boston, Mass., kicked off its carpool program with a limerick contest. Four \$50.00 prizes were awarded. Mutual of Omaha gave carpoolers free breakfast for the first month of its carpool program. Minnesota Plywood Company held a monthly drawing among its carpoolers for 10 gallons of gasoline.

Driver profits. The 3M vanpool driver gets his transportation free plus all fares beyond the eighth rider in a 12-passenger van. Average monthly fare per person is \$23.72.

Fuel Savings

The most obvious and perhaps the most important short term incentive for sharing rides is the tremendous amount of fuel savings possible.

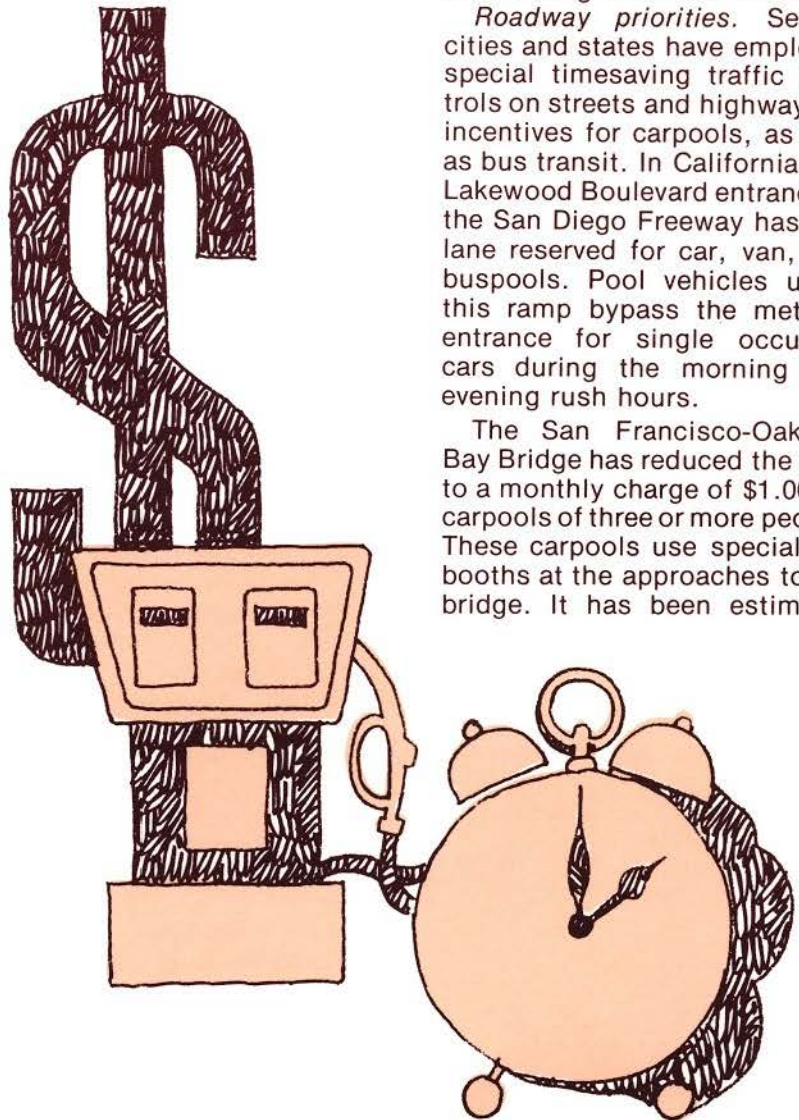
Special source. During the worst of the last energy crunch, at least one company, an engineering firm in Baltimore, had a ready reserve of fuel for emergency use by carpools.

Time Saving and Convenience

Many people consider carpools a nuisance. They are reluctant to become involved in pooling because they feel that it will require more time to commute and cause considerable personal discomfort. The truth is that most people who join carpools find they actually save time by ride sharing and that the imagined inconveniences never develop. There are ways in which pooling can be made even more time saving and convenient.

Roadway priorities. Several cities and states have employed special timesaving traffic controls on streets and highways as incentives for carpools, as well as bus transit. In California, the Lakewood Boulevard entrance to the San Diego Freeway has one lane reserved for car, van, and buspools. Pool vehicles using this ramp bypass the metered entrance for single occupant cars during the morning and evening rush hours.

The San Francisco-Oakland Bay Bridge has reduced the tolls to a monthly charge of \$1.00 for carpools of three or more people. These carpools use special toll booths at the approaches to the bridge. It has been estimated



that carpools save as much as 10 minutes over single and double occupant cars which must queue up at regular booths.

In northern Virginia, Shirley Highway, a part of I-95 running into Washington, D.C., has two lanes marked for carpools and buses only. Carpools of four or more save up to 13 minutes each way on their commute time. Dade County, Fla., is currently constructing a similar lane on I-95 leading into Miami and is operating another on U.S. 1.

Companies, especially large industrial plants, could facilitate carpools by providing special entrances and exits into the parking lot. This would ease the rush hour crunch many commuters experience even before they are on the road.

Priority parking. This is probably one of the easiest incentives to implement and maintain, and one of the most effective. The State of Connecticut reserved 245 spaces at the capitol complex in Hartford for carpools of government workers. GEICO has over 500 spaces reserved for carpools in the company lot. Where parking is hard to find or where large lots can mean an extra 10

minute walk from car to office, priority parking is a powerful incentive.

One company in Boston converted its executive parking lot into a preferred parking lot for carpools. To make the point even stronger, they stanchioned off the lot with red velvet rope and placed a uniformed guard at the entrance to usher in the "honored" commuters—and keep out interlopers. This is a good example of an incentive made more effective by clever promotion.



Recognition

Companies have found that recognizing poolers for their participation in the ride sharing program has had results. Not only does the pooler feel that his efforts are appreciated, he also just might be impressed that management is concerned about his personal well-being.

There are many ways in which a company can provide a sense of recognition. A few examples:

Contests and prizes. Even if there are no big cash rewards, or fancy prizes, contests can provide a spirit of competition. Publicizing the winners provides valuable recognition. Operation ECCO in Omaha, a multi-company approach sponsored by the Jaycees and Northern Natural Gas Company used achievement contests within companies to create interest. Other contests were mentioned earlier.

Employee participation. When possible, pooling programs should be run by employees. Management must be behind the idea and actively support carpooling, but basically it should be an employee program. The Hallmark Company has carpool coordinators in each department to administer the program and serve as counselors to keep

interest in the program at a high level. United Airlines in San Francisco used employees at all levels to develop and implement their pooling program. The program was explained and interest created at weekly safety meetings.

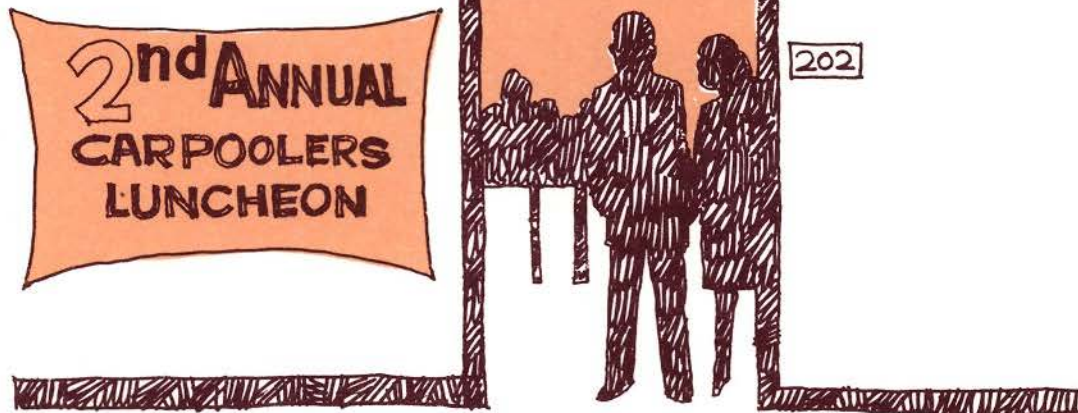
Status. Why not make belonging to a carpool a "status symbol?" Preferred parking helps accomplish this. Other special attention techniques include running items in employee publications such as "carpool of the month" stories, or holding special events for carpoolers only.

Special events. The Connecticut Department of Transportation kicked off its carpool program with a "coffee klatch" so that people who had been matched by computer could meet each other. This "human-

ized" the program. Seeing a face as well as a name helped fellow riders overcome their initial shyness, and made starting the new carpools much easier.

Recognition from the top. When General Motors began its program to promote carpools, the chairman of the board kicked off the campaign with a letter supporting the program to every employee. When 3M began its vanpooling program, the president of the company wrote to each employee explaining the program. The president of Great Western Sugar put in his name to be matched along with every other employee (Yes, he carpools 2-3 days a week). Endorsement as well as participation by management is a key factor in any successful pooling program.

Adjustment of work hours. Hewlett-Packard in Colorado Springs has 2,000 employees working variable hours. They were able to achieve a 50 percent participation in their car-buspool program by letting employees adjust hours themselves. Most employees were able to match up by shifting their work schedule by less than one hour.





FOR EMPLOYEE USE

Replacement Services

The most commonly given reasons for not pooling are (1) "I need my car during the day" and (2) "my work hours are irregular." These may be true in some cases, but studies show that poolers and non-poolers use a vehicle during work hours to the same extent for business or personal reasons. In a recent study only 30 percent of those interviewed use a car regularly during the day. The lack of a car can be compensated by providing substitute means of transportation during the day.

During work hours. Many large companies already provide transportation for business during the day through some form of shuttle or jitney service. Where possible this service should be extended to compensate carpoolers for doing without their car so they may take care of personal business such as banking and shopping.

Westgate Research Park in McLean, Va., runs a shuttle bus from offices to nearby shopping centers during noon hour. All companies should consider contingencies for emergency situations. Employees who carpool should know that in the event of a family emergency, transportation will be available.

After work hours. Flexibility of work hours is a more common reason for not pooling. Although the vast majority of workers in the country work standard hours, there are people such as salesmen, whose work hours are consistently variable. They never will be logical targets for pooling.

However, even for carpooling employees whose hours are regular day in and day out, there come times when overtime is required. For a company committed to ride sharing, there are many ways to deal with these occurrences. The Reston, Va., community bus system provides

a 7 PM late bus for people who have to work late. ARCO provides employees with city bus schedules, and many people found that they could be served by public transportation even if they had to give up their regular ride. Where regular bus service was unavailable, ARCO agrees to pay taxi fares for valid emergencies. Other companies have used fleet cars as backup transportation for employees who must work late.

Many executives who considered themselves "non-poolers" because of the long hours they worked found that carpooling made their work days more efficient. Before carpooling, they knew they could always "stay late and catch up."

Personalized Attention

Humanize the system. Many people are reluctant to carpool because of a basic resistance to become personally involved with other people—especially strangers. If a person's contact with a carpool program is a matching form sent through the mail and an impersonal computer print-out is received two weeks later, it's a fact that many people will never become poolers.

Whenever possible, carpool programs should be people-to-people programs. Ultimately carpooling is a social experience, but it can seem a most impersonal one without human contact.

Ford Motor Company, at its world headquarters in Dearborn, Mich., used carpool hostesses to distribute and help people fill out the matching forms. Hallmark uses its carpool coordinators to help people overcome their basic shyness and serve as follow-up counselors for employees who could not be matched and pool dropouts.

People should be available in

any carpool program to answer questions, explain the system, assist with filling out the forms (many people cannot read a map to find their house) and, simply, be a friendly face.

Anyone who fills out a form should get a response, even if no match is possible. George Washington High School in Denver, Colo., designed into their matching system a "sorry, we tried, but couldn't" response for non-matches. It was appreciated by those who couldn't participate.

Example by Leaders

The single most important ingredient of a successful program is for top management to endorse and participate in ride sharing. A 3M Company vice president is a regular passenger in a vanpool, and so is the president of Great Western Sugar.



Middle management. This group is equally important, but frequently harder to reach. Studies show that resistance to carpooling is most prevalent among older, higher income personnel. Frequently middle managers who should set an example by pooling are reluctant to do so—especially when preferred parking for carpools threatens their parking space close by the door. This is a time for top management to take these persons aside and explain that for the success of the program middle managers must cooperate.

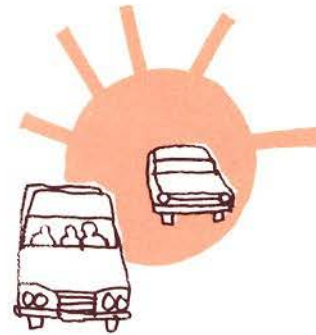
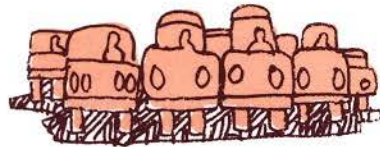
PUBLIC INFORMATION AND PROMOTION

The purpose of a public information and promotion campaign is (1) to inform prospective poolers about the program and (2) persuade them that participation in the program is in their own best interest. The type of campaign needed is dependent upon the nature, size, and scope of the ride sharing program itself.

A small business or manufacturing plant may be able to circulate the word and encourage participation by a simple, direct program of posters, bulletin board notices, inter-office correspon-

Social Duty

People should carpool. Potential benefits for relieving air pollution, traffic congestion, and the fuel shortage seem obvious but they aren't. The benefits must be pointed out, explained, and repeated over and over in different ways. And that is where good public information and promotion comes in.



dence and staff meetings. A very large concern will also use newsletters or house organs and other available internal communications systems, and may wish to enlist the aid of local news media (newspapers, radio, TV).

In any case, the information and promotion campaign should simply and honestly state what the program is all about, and specify how the participant will benefit.

It must be recognized that the best ride sharing program will not be effective if potential users do not know about it (hence, the need for public information); or, if they know about it but are reluctant to take advantage of it (hence the need for promotion).

Human Factors in Publicity and Promotion

The problems in setting up and operating a successful ride sharing program can best be described as 10 percent technical and 90 percent social. Public information and promotion campaigns must be designed to help meet the social part of the problem, which mainly deals with human relationships.

Setting Up the Campaign

In planning a public information and promotion campaign, several questions arise that have to be carefully considered and answered. Some of these questions are:

1. When should public information and promotion begin?

Even if potentially true, the assumption should not be made that there is an existing market for ride sharing. The first step, then, should be to stimulate a market and then offer the program in easily understood, but specific terms.

In its initial stages, "teaser" promotions can precede the announcement of the program (" 'CommuterClub' is coming!"). However, it is vital that details of the program itself are worked out before the publicity campaign starts. If the program includes a large-scale sophisticated computer matching service, timing of the campaign is most important to maximize initial enrollment. If

the program amounts to simply encouraging employees to share rides, timing is less important.

However well executed the public information and promotion campaign may be, it cannot bail out a poorly-conceived ride sharing program. A determination should be made about whether pooling is needed and workable before any publicity campaign is planned. Likewise the success of the program is greatly dependent on people getting the word. In all cases, public information and promotion planning should be concurrent with planning the program itself.

2. Where should promotion be concentrated?

Internal promotion programs

can concentrate on use of articles or cartoons in employee publications, pay envelope stuffers, management meetings, letters to employees' homes, bulletin board notices and posters, regularly scheduled staff and employee meetings or specially called meetings to introduce the subject. As mentioned earlier some companies have found "coffee hours" a good way to introduce potential poolers to each other.

If the campaign warrants external promotion, the use of ad-



vertising techniques, public relations and mass communications should be considered.

3. How can mass media help in promoting ride sharing?

Again, it depends on the size and nature of the pooling program. If a small plant with a few employees in a large metropolitan area is simply encouraging its employees to carpool, no mass communications (news media) help should be expected. On the other hand, if this small plant has a unique, interesting approach, or an unusual incentive for ride sharing, then newspapers, radio and TV stations could very well help promote the program legitimately through news stories, editorials or human interest features.

If a major industry or business in the community is launching a massive ride sharing program, radio and TV stations, newspapers and magazines should be notified and fully informed of the program. Subsequent coverage, stories about pooling on a national scale and pro-pooling editorials, could be valuable promotion.

If the program is a community-wide, cooperative effort supported by more than one business, industry or government agency, care must be taken to coordinate promotion in the

mass media to avoid both wasteful duplication of effort and the possibility of confusing the public.

4. How can public information and promotion improve the image of ride sharing in general?

A primary function of publicity and promotion is to cast ride sharing in a favorable light. If preferential parking, specially provided vehicles, or other incentives are involved, the way is paved to promote ride sharing as a desirable benefit. Since example is also a good teacher, showing decision makers and top officials sharing a ride is an excellent vehicle for promotion. The old World War II image of forced carpooling is a negative approach which no longer ap-

plies. Now it can be shown that the affluent and poor alike, the company president and the mail room clerk, can all benefit in many ways from pooling.

But the message used to create the image must be honest. A favorable atmosphere cannot be achieved through publicity if the program itself does not offer benefits to the pooler. So the best image maker for ride sharing is an honest articulation of the advantages of the program.

5. How important are public information and promotion to the continuity of a pooling program?

A ride sharing program, even if it is launched with great success, can lose momentum quickly. The public information and promotion effort should be planned as a continuing effort before program start-up, during early implementation and in follow-up as the program gains acceptance and becomes an on-going activity. Examples of results achieved, human interest stories and a reiteration of benefits can be designed into a continuing promotion program.

Promotional Techniques

There is an almost endless variety of techniques which can be used to promote pooling. Some examples:

Several radio and television stations around the country have initiated regional carpool programs, or are cooperating with local organizations in a program, and use their broadcast resources in promotion (a radio station in St. Louis actually *put a car into a swimming pool* as a publicity stunt to dramatize the slogan "Everybody Into the Pool!"). Many stations prepare their own "promos." Others use public service materials distributed to them. For example in the fall of 1973 the Highway Users Federation produced radio and television public service announcements which have been used by many stations in conjunction with local pooling promotion. The "Pool It" logo, a public domain symbol used by the Federation to promote ride sharing nationwide, has also been widely used by TV stations as a tag for public service announcements.

Paid advertising is another route. The Mobil Oil Corporation

ad, "Okay, Everybody, Into the Pool," ran in leading newspapers coast to coast.

An example of imaginative use of posters has been provided by General Motors. Six posters were provided, sequentially, to GM plant managers to build interest in and improve the image of carpooling over a six-week period.

Bumper stickers are popular and relatively inexpensive promotional devices.

The high cost of some elaborate promotional campaigns should not scare off those with modest budgets. An array of low-cost techniques can be employed. One of the most effective promotional devices—word of mouth about a successful program—doesn't cost a cent.

"Double Up, America" . . . The National Campaign

The U.S. Department of Transportation is conducting a nationwide public service advertising campaign to promote ride sharing.

The theme of the campaign is "Double Up, America. Two Can Ride Cheaper Than One." Print, radio and television as well as outdoor advertising media are donating space for the campaign which is a joint project of the U.S. Department of Transportation and The Advertising Council.

While its main purpose is to heighten the awareness of the public to the need for and the benefits of ride sharing and, as a result, change attitudes, the campaign is also designed to serve as an umbrella to support local campaigns.

Recognizing that it takes concerted local implementation for a successful carpool program, the "Double Up" campaign provides materials which can be obtained for local use to tie in with the national campaign and thereby take advantage of its momentum and influence.

The materials include posters, in three sizes, with space for imprinting local information; pay envelope stuffers, also with space for local imprints; television public service announcements which are identical to the national announcements but provide time at the end for local messages; bumper stickers; newspaper and magazine ads for use in house organs; and a 15-minute color/sound motion picture which highlights five different types of successful ride sharing programs around the country. Order blanks for this material and more can be obtained by writing to: Double Up, 221 Park Avenue South, New York, New York 10003.

Double up, America.



Two can ride cheaper than one.

If you drive to work by yourself, you're spending twice as much money on commuting as you should.

That's too much.

Cut it in half. Take a friend.



CONCLUSION

Questions not addressed here will undoubtedly arise in planning and carrying out a public information and promotion campaign in support of a ride sharing

program. But the major concern should always be to (1) clearly define the program, (2) spread the word on the program in simple, direct terms to all poten-

tial poolers, and (3) make every effort to persuade potential poolers that the advantages of ride sharing are a tangible personal benefit, available for the asking.

LEGAL ASPECTS

EMPLOYER LIABILITY

There are two basic company-sponsored pooling situations that will affect an employer and his liability:

1. The employer may take an active role in a *mandatory* pooling program in which his employees must share rides as a condition of employment, or

2. The employer may set up and administer a *voluntary* ride sharing program for his employees.

In each case the liability is different. We, of course, recom-

mend a voluntary program because of the limited liability of the employer in such a program. However, in every circumstance, the employer should obtain definitive information from his insurance company and his lawyer for the program he intends to develop and institute.



CARPOOLER LIABILITY

Carpool drivers should be encouraged to discuss their participation in ride sharing with their insurance agent.

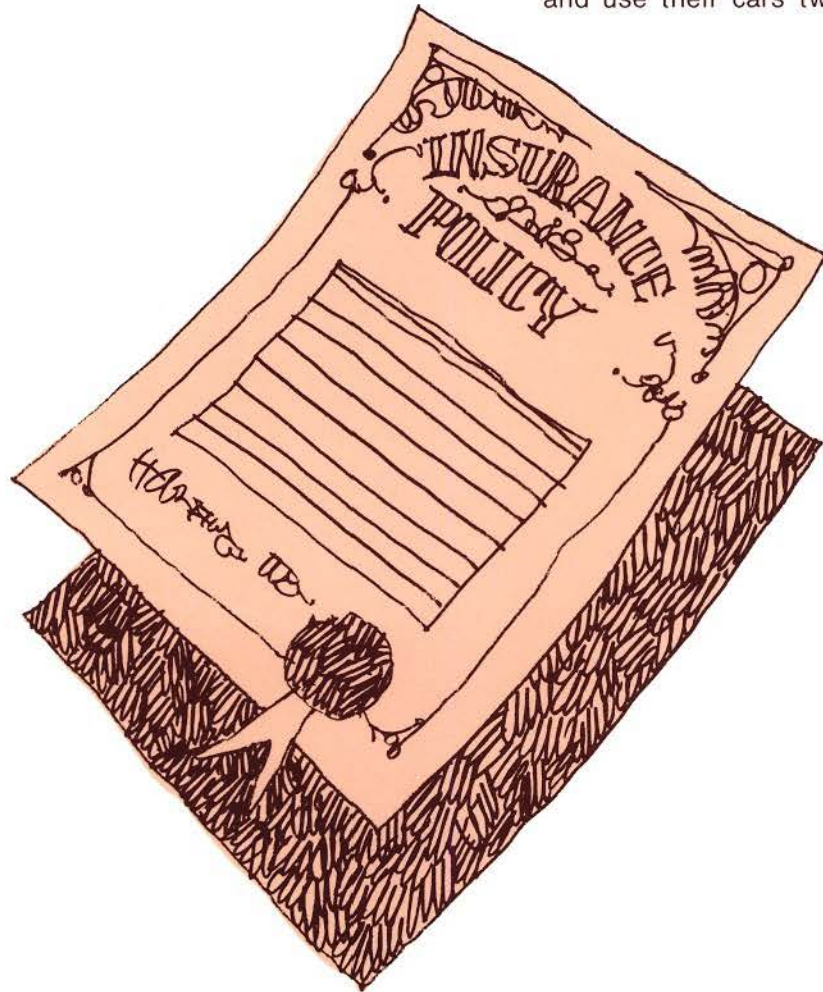
They should be advised that they will need more bodily injury insurance, but, even with the increase in insurance rates in this category, they can probably still

save money on their overall insurance bill.

Many insurance companies have noticed the increasing popularity of carpooling and have responded by assuring drivers that they will be covered by their present policies in their ride sharing endeavors. In addi-

tion many insurance companies have reduced insurance rates for carpoolers.

A program of reclassification, initiated in California, provides an insurance rate discount of up to 13 percent to motorists who drive their cars between three and nine miles (one way) to work and use their cars two days or



less each week. Anyone who travels 10 miles or more (one way), but with the same limitations as above, may have his classification changed and is eligible for reductions of up to 18 percent.

In addition to California, the changes in classification definitions have been submitted to insurance regulatory authorities in 46 states, the District of Columbia, and Puerto Rico.

Because different rates apply to different areas, the amount of discount will vary. Eligible motorists can contact their insurance agent to apply for reductions.



SECURITY AND CONFIDENTIALITY OF INFORMATION

The information needed to start a carpool program is generally of a personal nature and should be safeguarded against misuse.

Some suggested safeguards are:

- Control list distribution to only those with an expressed interest in pooling.
- Do not allow files or lists to be used for any purpose other than pooling.
- Set up actual display boards (e.g., pin/number system) in areas accessible only to employees.

- Time of departure from home, age, and similar data are not needed in starting a program.

As a precaution, the company's lawyer should be consulted on these matters.

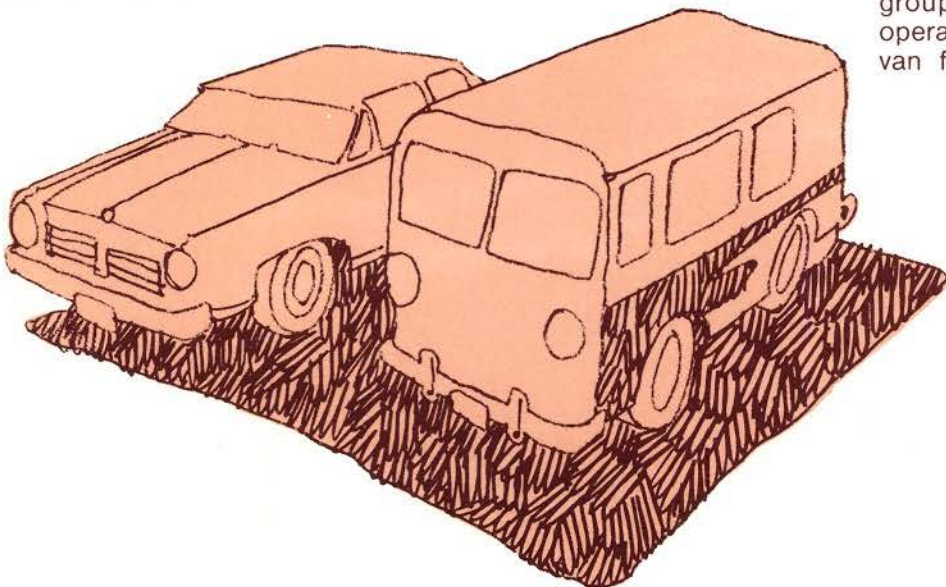
REGULATION AS A CARRIER

Carpools do not come under regulation by any Federal agency. The Interstate Commerce Act excepts from regulation the casual, occasional or reciprocal transportation of passengers by motor vehicle for compensation by any person not engaged in transportation as a regular occupation. Almost all states also exempt carpools from regulation.

At present, the Interstate Commerce Commission (ICC) and the Bureau of Motor Carrier Safety (BMCS) have also agreed that employer-operated vans do not come under regulation. It should be noted that ICC and BMCS regulations only apply when vehicles cross state lines.

They have agreed that an employer, whose primary business is not that of providing transportation, can provide vans for his employees to use for commuting to and from work and not come under regulation. Because it is not the primary business of the employer, the vanpool is termed "private carriage" and is therefore exempt from regulation.

If, however, an individual or group form a corporation or cooperative to own and operate a van for commuting, then they

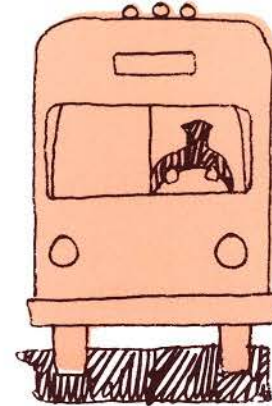


would come under ICC and BMCS regulation. This is because the operation would be termed a "contract carrier of persons."

Buspools are a different story. The ICC and BMCS have not, at this writing, laid down specific rulings on buspools. A general

guideline is that if the bus has a steady, professional driver, it comes under regulation. Both the ICC and the BMCS, however, are ruling on buspools on a case-by-case basis.

Each state, it should be noted, has its own regulatory agency that governs intrastate carriers. The regulatory agency in your state should be consulted to find out if certification as a carrier is needed.



CONCLUSION

This chapter has been necessarily brief. Because of the many ride sharing possibilities and the differences in insurance rates between localities, it is not really possible for this manual to deliver definitive answers.

Present evidence shows that the liability considerations in

ride sharing are real and need to be dealt with by the employer and the carpooler. It must be stressed, however, that questions dealing with insurance and regulation are nearly always easily answered and are secondary to the benefits accrued from ride sharing.

