



# Employee Trip Reduction | Resource Book



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



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## | INTRODUCTION TO TRIP REDUCTION |

The need to reduce vehicle miles travelled in the Valley is a critical aspect of air-pollution reduction. Valley-wide, more than 95 million miles are put on our roads each day, and this has a huge, negative impact on our air quality and consequently, the quality of our lives.

There are many ways to reduce miles travelled and many ways to implement them. We have identified five different categories for trip reduction that can be tailored to organizations, depending on their sizes, resources and operational needs.

Alternative work schedules are a feasible option for some organizations. Depending on specific operational needs, one of several alternatives – flex-time, compressed work weeks or staggered work hours – may give the organization and its employees the flexibility they desire while maintaining peak efficiency and reducing emissions.

Using other methods of getting to and from work, such as biking or walking, carpooling, using mass transit and vanpooling/bus pooling, may be feasible options that an organization can put into practice and that take cars off the road during the work day.

In this resource book, you may find a strategy, or combination of strategies, that takes your organization to the next level in making air quality a priority in your daily decisions!

*These materials provide general guidelines with regard to telecommuting, alternate commute options, and employee trip reduction. The information does not attempt to offer solutions to individual problems. It is designed to be informative and should not be considered legal advice. Questions about specific issues should be referred to legal counsel or other professional for analysis before action is taken.*

## | ALTERNATIVE WORK SCHEDULES |

Alternative work schedules include flexible work hours (flex-time), compressed work weeks and staggered work hour programs.

**Flex-time** is a set of strategies that allows the **employee to choose** start and stop time within certain parameters. Most flex-time options require the employee to complete the required eight hours each work day.

**Compressed Work Weeks** allow the employee to work **more hours each day** and take one or two days off each week or bi-weekly period.

**Staggered Work Hours** allow the **employer to select** different start and stop times for departments or individuals within the company.

### **Background**

In the mid-1800s, the average work week was 68 hours. The work week decreased by approximately three hours each decade as workers recognized the need for more free time. By the 1930s, the work week was firmly established at five, eight-hour days or 40 hours per week. This schedule appeared to meet the needs of the average American worker and was touted as an enhancement to the working condition.

Over the past six decades, there has been little change in the standard work week. However, the American workplace has undergone several social, environmental and economic changes. Today, few American workers match the profile of their predecessors from the 1930s. More women entered the work force, there are more dual-career and single-parent households, and we have transitioned from an industrial-based to a service-based work force. These changes have increased the scheduling conflicts each of us encounter on a daily basis, and calls for a better way of scheduling our work and personal lives. This, coupled with an increased focus on the quality of work life, has led to interest in alternative work schedules.

From a transportation standpoint, rapid growth in population and vehicle usage have led to severe traffic congestion in many of our urban communities. The transportation systems are overburdened during peak periods. If allowed to alter the start and stop times of workers, the peak period could be spread out and reduced. For example, from a 1986 study conducted by the Los Angeles Community Redevelopment Agency, one-quarter of all commute trips leaving downtown Los Angeles occurred between 4:45 pm and 5:00 pm. Less than half that number left work in the 15-minute period before and after combined. Transportation planners have looked to staggered work hours and flexible work hours as a desirable transportation solution in reducing peak-period congestion.

From an air quality standpoint, vehicle usage accounts for the majority of air pollution problems in most urban communities. If trips to work could be reduced, air quality would improve. The appeal of the compressed work week schedule is that workers continue to work the same hours each week or bi-weekly period, but in fewer days. This reduction in commute travel translates to air quality benefits.

**Flex-time** is credited as a German “invention.” In 1967, the Messerschidt Company suffered with a tardiness problem. The firm was reached by a narrow and congested roadway, and employees were frequently late to work, due to traffic. After implementing a program to allow employees flexibility in their arrival times, the company found that the tardiness problem was eliminated and, to its surprise, improved morale, job satisfaction and increased productivity ensued. The concept of flex-time spread throughout Germany and Switzerland and to the United States, as well.

**Compressed Work Weeks** began in the Texas oil fields in the 1970s. Oil-drilling companies found their crews investing a great deal of time in daily set-up and tear-down operations of the equipment, so that relatively few hours in the traditional eight-hour day remained for actual production. By lengthening the work day, the oil crews increased the production time between setting up and taking down the drilling equipment.

**Staggered Work Hours** are used most commonly by local governments in spreading out the peak hour demand on the transportation system. City-wide programs have been in place in New York and other cities for many years.

## **Types of Alternative Work Schedules**

### **Flex-time**

Flex-time strategies spread out peak hour congestion over a longer period. They vary by the degree of flexibility offered employees. Three programs demonstrate the range of flex-time applications:

- Flexitour

Flexitour offers employees the option of selecting their own start/stop time within certain parameters. Once the employee has made a selection, they must stay with that schedule for a period of time, usually three or six months. At the end of the period, they can continue with the same schedule or select a new one. The advantage of this program is that it allows employers to know when to expect employees at work each day. One disadvantage is that it reduces daily scheduling flexibility that many workers need to balance work and personal needs.

- Gliding Schedule

The gliding schedule is the most common form of flex-time. Under the gliding schedule, the employer designates a flexible arrival period and core periods when all employees must be at work. For example, employees could arrive at work anytime between 7:30 and 9:30 am, and depart after eight hours have been worked. The core periods could be 9:30 am to midday and 1:00 to 4:30 pm. With the gliding schedule, employees can change their arrival time daily; however, most workers settle into a regular schedule within a few weeks.

- Maxi-flex

The maxi-flex schedule is the most flexible option offered by employers. Due to legal restrictions and a need for customer service coverage, this option is rarely used. With maxi-flex, the employee can work whenever they want during the week or bi-weekly period, as long as they complete the required number of hours. For example, an employee could work six hours on Monday, 12 on Tuesday, 0 on Wednesday and so on. An advantage of this option is that it allows the employee to take advantage of their own productive periods and not be required to work when they are not as able to produce. Scientists or other creative thinkers are the most common users of the maxi-flex schedule.

## **ALTERNATIVE WORK SCHEDULES CASE STUDY 1: EARLY ARRIVALS**

*A large financial firm on the West Coast wanted to switch to a gliding schedule, but was fearful of people opting to arrive late, thus further reducing the available hours to communicate with branch offices, clients and others on the East Coast. Cautiously, they decided to go ahead with the program. The flexible start period was defined as 7:00 am to 9:00 am, and departure period 3:45 pm to 6:00 pm. The lunch period could not be less than 30 minutes. Over 90 percent of the employees eligible for the program opted to work the new schedule.*

*Nine months into the new program, the company began to find most of their employees arriving early. Nearly two-thirds arrived before 7:30 am to avoid traffic congestion in the area.*

*After 19 years on the program, management reports a continued positive impact on recruitment and retention, employee morale and the ability to communicate with co-workers and others on the East Coast. A company representative recently said that “if we had the occasion to, we would definitely do it again.”*

### **Compressed Work Week**

The compressed work week schedule is distinguished by longer work days and a shorter work week or bi-weekly period. Compressed work weeks may not reduce the total number of trips, but will reduce the number of work trips. The two most common strategies are the 4/40 and 9/80 schedules.

- 4/40 Work Schedule

The 4/40 schedule has the employee work four 10-hour days each week. The employee takes the 5th day off work. This schedule is most commonly used in manufacturing firms where the overhead costs can be reduced for the fifth day.

- 9/80 Work Schedule

The 9/80 schedule has the employee work eight nine-hour days, and one eight-hour day. The employee takes the 10th day off. This schedule is popular with office professionals who can work nine hours effectively and enjoy the ability to have an extra day off every two weeks.

## **ALTERNATIVE WORK SCHEDULES CASE STUDY 2: INCREASED PRODUCTIVITY**

*A technical engineering firm decided to test out the 4/40 concept on a group of employees that were tracked under an existing productivity measure. The measure estimated time in preparing technical reports and product specifications, and was refined over years of use. Under the system, any fluctuation in employee productivity had to be assessed and reported to management. This was an ideal setting to determine its impact on employee productivity.*

*The pilot study was conducted over a one-year period. The supervisors continued to provide productivity reports on a monthly basis and employees were asked to complete an attitudinal survey at the beginning, mid-point and end.*

*At the end of the pilot study, productivity was reported to have increased by 4.1 percent over that of the last 12 month period (adjusted for changes in number of employees and other related factors). When examining this increase, it was determined the majority of this gain came from a decrease in approved paid absence such as trips to the doctor or dentist. The study found that employees were able to be at their desk for more hours. Additionally, employees reported a gain in having at least two hours of uninterrupted time each day since other departments and clients were not calling or stopping by for visits. From a customer standpoint, coverage to the outside was maintained by splitting the group. However, initially, other departments in the company complained about not being able to talk with the person they wanted to contact when they had their day off. Over time, internal complaints decreased as people became accustomed to the new schedule.*

*In reviewing participants' attitudes towards the program, there was a strong desire to keep the 4/40 schedule. The only negative that employees reported was fear of walking to a dark parking lot during the winter months. (Employees who did not like the longer hours were allowed to work a conventional five-day schedule.)*

### **Staggered Work Hours**

Staggered work hours are distinguished from flex-time in the designation of start and stop time by the employer and not the employee. Employers can design the program to stagger hours by department or employee. The benefit of this schedule is that it can help to reduce peak demand for mobility in and around the work site. A disadvantage is that it doesn't enhance employee's ability to coordinate their work and personal scheduling needs.

## **ALTERNATIVE WORK SCHEDULES CASE STUDY 3: CROWDED ELEVATORS**

*An employer occupying a 28-story office tower had numerous complaints by employees unable to get out of the building in a timely manner at the close of the work day. Some employees had to wait as long as 10 minutes before they could get into the elevator. Faced with the decision of redesigning the exiting system, the employer decided to stagger start and stop times by departments, thus allowing people to come and leave in an orderly fashion while minimizing the disruption of work within each department. The program was successful in reducing exiting delays.*

### **Implementing Alternative Work Schedules**

There are a few guidelines to consider when designing and implementing an alternative work schedule.

- Review applicable state and federal labor laws.
- Discuss programs with management and select the desired program.
- Form an Advisory Group with representatives from each department.
- Discuss program features with the company attorney and labor union representatives.
- Set policies and procedures.
- Review operational needs such as customer service coverage.
- Determine employee interest.
- Conduct employee orientation sessions.
- Monitor and evaluate the program, at least during the first year. Testing the program out in one department first may be advisable.

There are advantages and disadvantages to implementing alternative work hour programs at the worksite. It is important to consider both in the development process. These considerations will help the employer design a program that is sensitive to issues that are important to both management and the various employee groups.

### **Ridesharing Impact of Alternative Work Schedules**

Alternative work schedules can have both a negative and positive impact on ridesharing, depending on how the program is set up. With flex-time, varied start and stop times can reduce potential carpool and vanpool matches for large employers in relatively isolated areas. For small employers in a multi-employer setting, flex-time can assist the employee in matching their schedule with that of employees from neighboring work sites. Some employers allow only ride sharers to work the flexible hours.

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## Flex-time

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### Benefits

- Increased flexibility
- Increased ridematch potential for small employer
- Facilitates child care arrangements
- Decreased peak period congestion

### Considerations

- Employee accountability
- May decrease ridematch potential
- May hamper office communications

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## Compressed Work Week

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### Benefits

- Increased ridematch potential
- Increased productivity
- Improved morale
- Trip reduction potential
- Operating expense savings
- Extended service hours
- Reduced tardiness and absenteeism
- Increased cost-effectiveness

### Considerations

- May hamper meetings or communications
- May adversely affect transit use
- May reduce ride-matching with employers on other schedules
- May strain child care arrangements
- May conflict with customer schedule
- May conflict with labor

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Under the compressed work week schedule, there is often an increase in potential matches, since many employees are more inclined to end on time and go directly home after work. One disadvantage is not being able to make matches with neighboring employers or other departments working a conventional schedule. Additionally, the longer hours can reduce the availability of transit services that are designed around the standard peak period. Darkness in the winter months can also be a deterrent to regular transit use. However, it must be remembered that, by eliminating trips, compressed work weeks have a direct positive impact on Average Vehicle Ridership (AVR).

Staggered work hours can sometimes reduce the pool of potential ridesharers because employees will usually not want to wait long for co-workers in order to carpool.

## **Legal Issues of Alternative Work Schedules**

Legal considerations are an important component in developing and implementing an alternative work schedule program. For non-exempt employees, the Federal Fair Labor Standard Act requires overtime payment for work in excess of 40 hours on the designated work week. California State Labor law has a similar stipulation, but also requires overtime for work in excess of eight hours on the work day (for Wage Order 1, 4, 5, 9 and 10). To address these requirements, the employer may do two things:

1. To work the 9/80 schedule, redesignate the work week so that it starts at noon on employees' day off.
2. To work the 9/80 and 4/40, conduct a vote of all non-exempt employees in the designated work unit. With a two-thirds vote, by written, confidential ballot, the employer can be exempt from overtime payment solely for the purpose of working the desired schedule. Under Wage Order 1, the exemption can allow up to 10 hours and for Wage Orders 4, 5, 9 and 10, up to 12 hours.

Above all, ***consult the company attorney before implementing*** any alternative work schedule. Each company is different and other laws may apply.

## **Child Care Issues of Alternative Work Schedules**

Child care issues must be carefully addressed in order to have an effective program. Under flex-time, the benefit of coordinating the work schedule with child care considerations can be a major benefit to the employee. This advantage has helped many employers to better recruit and retain working parents. Under the compressed work week schedule, child care arrangements can become strained. By working the longer days, the employee is less able to meet child care facility hours, not to mention the parent's reluctance to leave the child at a facility for 12 or 13 hours each day (10-hour work day, one hour-lunch and one to two hour commute).

To address these concerns, work with the employees that have children and find out what their needs and concerns might be. In some cases, employers have helped the employee locate a new child-care facility with longer hours, or set up a facility at work and allow the employee to visit the child at breaks and lunch. Above all, if the parent does not want to work longer hours, allow them to remain on the conventional schedule.

## **CONCLUSION**

Alternative work schedules can offer the employer both productivity and transportation benefits. In considering these programs, look at the dual benefits and select the program that best meets the company's needs.

## | BICYCLING AND WALKING |

### BICYCLING AND WALKING MARKET PROFILE

- ☺ Short distance commutes
- ☺ Health / Fitness conscious
- ☺ Environmentally concerned
- ☺ Professional / research positions
- ☺ Limited or no access to vehicles

Bicycling and walking are two ideal forms of commuting to and from work. Although these modes of transportation are often overlooked in modern day commuting, both are becoming increasingly popular due to increasing trip reduction efforts and the growing interest in health and exercise. It's important to note that bicycling and walking provide the same degree of flexibility and independence as driving alone.

Weather conditions, inadequacy of bike routes, lack of shower and locker facilities at workplaces, and hilly terrain can make it difficult to encourage walking and bicycling. An employer should use good judgment when promoting these options. The employer should also realize that walking and bicycling might provide seasonal alternatives to driving alone, and might not be year-round options. Additionally, walking and bicycling are usually ideal for employees who live close to work, unless they are avid athletes.

### **Bicycling**

Employees who live from one to five miles from work are the most likely to cycle to work. The presence of well-maintained bike lanes, paths or designated bike routes between home and work destinations will make it easier to persuade potential users, so be familiar with the local bicycle system. Bicycle lockers and showers at the work site also encourage bicycling.

Don Henry, writing an employee's guide on "How to Commute by Bicycle" for the League of American Wheelmen, notes that many bicyclists already ride to work at least twelve times per month—about 2.8 million Americans, or about one in 60 commuters.

### **Walking**

Walking is most appealing to employees with commutes two miles or less. Sidewalks, protected crosswalks, and possibly pedestrian bridges, are necessary for walkers' safety. Work sites located adjacent to densely populated residential areas offer more opportunities for walkers.

## Benefits

Employer benefits of encouraging employees to walk/bicycle include:

- Reduced need for parking,
- Improved employee health, and
- Reduced stress in the work place.

Employees are attracted to walking/bicycling to work as a commute option because it:

- Improves air quality,
- Gives them an opportunity to get in shape while commuting to and from work, and
- Eliminates their commuting cost.

As a community, our quality of life is enhanced if more people walk or bicycle to work. Increased use of these transportation options will:

- Improve air quality,
- Reduce fuel consumption and congestion, and
- Improve employee health and well being.

## Cautions

Employees should be educated on proper safety precautions such as riding with traffic, wearing a helmet, watching out for car doors, etc. If a work site is located in a remote or unsafe area, walking or bicycling clubs can provide necessary protection. Walkers should be discouraged from walking after daylight in unsafe areas without good lighting or pedestrian facilities.

## Design and Implementation

- Provide maps identifying bike routes and walking paths.
- Provide bicycle parking that will protect the bikes from weather damages and from theft. Bike racks, enclosed bicycle lockers and the provision of in-door parking are all popular options.
- Showers and lockers are a necessity for most bicyclists and, possibly, walkers. If such facilities are not available at a work site, it may be possible to make arrangements with a health club or nearby building.
- Offer bicyclist and walkers incentives for not driving to work. If subsidies are offered to carpoolers, vanpoolers and/or transit users, a travel allowance for those who walk/bike will ensure equity among all ridesharers.
- Provide literature on bicycling safety (usually available from the local Automobile Club).
- Offer bicycle safety courses.
- Provide gift certificates for athletic shoes and bicycling gear such as helmets. Conduct periodic drawings for similar prizes.

## **Supportive Strategies & Incentives**

Providing bicycle storage, showers, and clothes lockers are the most effective complementary measures available to support bicycling and walking programs. Commuters who live along bicycle lanes, paths, and routes can take advantage of the convenient access to these facilities. Another important support strategy is to provide ridematching assistance for employees who would like to bicycle or walk with others to work.

## **Effectiveness**

Likely effectiveness depends on site accessibility and proximity to residential communities. In Europe, it is common for 20-25 percent of employees to walk or bicycle to work. The national average in the United States is 4.3 percent. Like transit riding, bicycling and walking are the most effective trip reduction strategies, reducing one trip for every participant.

## | CARPOOL |

### CARPOOL MARKET PROFILE

- ☺ 2-6 people
- ☺ 5+ mile commutes
- ☺ 15+ minute commutes
- ☺ Similar work schedules
- ☺ Similar home / work locations
- ☺ Households with more workers than vehicles

Carpooling is the most flexible alternative to driving alone, and can be the easiest strategy to implement. Many employer trip reduction programs rely on carpools as the foundation upon which they build all the other program elements.

Carpools are widely applicable since they require small clusters of neighbors with work locations and schedules. A carpool consists of two to six people sharing a ride to work in a private vehicle. Commuters who travel more than five miles and 15 minutes are good candidates for carpools. Factors that foster carpooling include increasing gasoline prices, crowded parking lots and/or limited transit service.

Variations in carpools reflect the diversity of commuters. One person may do all the driving with the passengers contributing to the cost of the commute (e.g., gas parking, tolls, etc.). Or the commuters may share driving responsibilities and not exchange money. Carpooling can be as simple as sharing a ride to work with a spouse or friend.

### Benefits

Employers benefit from carpooling because:

- Employee productivity is often enhanced as a result of reduced commuting stress, and
- Savings can be achieved through reduced parking expenditures.

Employees benefit through:

- Savings of commuting costs, and
- Reduced stress levels.

For the community, carpooling results in:

- Reductions in congestion,
- Improved air quality, and
- More efficient use of the transportation system.

## **Cautions**

Employees need to know that, despite any help they may receive from an their employer, they are responsible for making the final arrangements for carpools. They need to be prepared to screen the other party for many issues such as preference for smoking, type of music, flexibility of schedule, etc. If an employee is unhappy with the match, advise them to leave the arrangement and offer to help locate another carpool partner or a more suitable arrangement.

Also, note that all subsidies or financial incentives given to carpools are considered taxable fringe benefits and are subject to federal income and payroll taxes, but not state income taxes.

## **Design and Implementation**

Ways employers can assist carpool formation:

- Ridematching – Using either the services of a publicly available rideshare agency or the organization’s personnel records to identify employees who have similar commute origins and work schedules. Concentrations of three to four people with similar home-end characteristics make a good place to begin formation efforts. By tapping into a publicly available system, employers may access employees at nearby companies for additional ride matching potential.
- Mapping – On a map of the area surrounding the work site (at least a 50-mile radius), indicate where employees live using dots or pins. Post this map in a public location, such as in the cafeteria, break room, or transportation information center, with information on how employees can form pools.
- “Meet-a-Match Parties” – Small gatherings can be arranged by employers to bring together people from the same neighborhood or zip code. These meetings help ease the anxiety of meeting potential carpool partners. They are informal and can be scheduled during breaks or as a brown bag lunch.
- Personal phone calls and introductions - Introduce potential poolers to each other or contact them by phone to describe a potential carpool partner.
- Employee presentations – Schedule presentations for different departments. Let the employees know what assistance is available.
- Refer rideshares to existing pools – Track the existing pools so that in case a carpool needs a rider, a potential pooler can be referred.

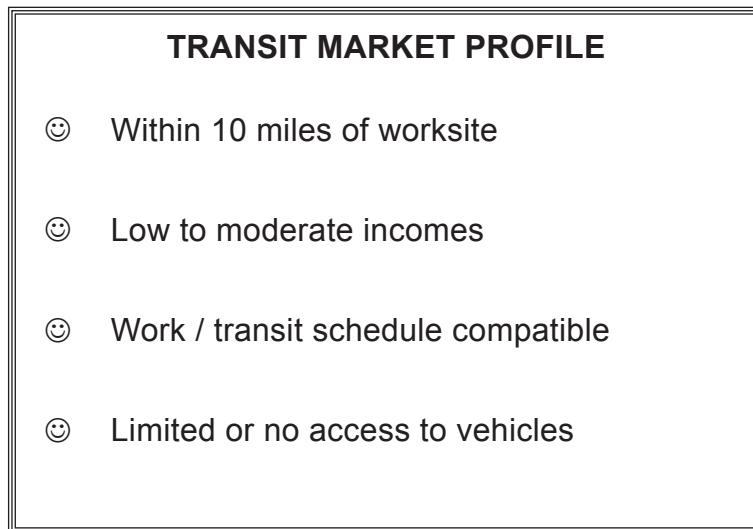
## **Supportive Strategies & Incentives**

Complementary measures that support carpooling programs include: preferential parking for carpoolers, price breaks for carpool parking, company vehicles available for mid-day business trips for carpoolers, guaranteed ride home programs, personalized ridematching, cash incentives and marketing efforts.

## **Effectiveness**

Although carpooling is usually the most acceptable alternative to driving alone for many people, it is not as effective in terms of reducing trips as, for example, walking. This is because for every two-person carpool, only one vehicle trip is reduced and if those same two people walked to work, two trips would have been reduced. Thus, to maximize the effectiveness of carpooling, it is important to encourage three- and four-person carpools and to encourage employees to carpool as often as possible. It is worthwhile, however, to encourage part-time carpooling among employees who may have personal or business commitments that prevent them from carpooling full-time.

## | TRANSIT |



Although transit usage varies in metropolitan areas, only 5.3 percent of American commuters use mass transit regularly to commute to work (U.S. Department of Transportation). Buses could, however, play a much larger role in our daily commute if more information were available regarding access and scheduling. Employers can help market transit along with other transportation alternatives.

Mass transit is an excellent choice for commuting where services are readily available and accessible. Most urban areas provide an adequate transportation network for commuters. The best potential exists for employees living within 10 miles of the work site. Transit use depends upon the availability, scheduling and cost of transit to the work site.

### **Benefits**

Employers benefit when their employees use mass transit because, similar to vanpooling and buspooling, employee productivity may increase as a result of reduced commuting stress, and the need for providing employee parking is greatly reduced.

Mass transit appeals to employees because it reduces their commuting cost and stress. It also eliminates parking worries and/or the need for an automobile for commuting purposes. Some employees prefer the relative anonymity offered by transit use, since there is usually no expectation of conversation.

If more people used mass transit, we would see dramatic changes in air quality, fuel consumption and congestion.

## **Cautions**

Employees may not know how to use the public transit system. Offer guidance on how to use transit and help with personal itineraries. Advise transit riders to have the correct fare or to purchase a monthly transit pass. Usually drivers will not give change. Transit riders also need to be informed that schedules do not always list all of the stops for a line. Advise riders on safety tips, such as being alert to their surroundings, both on the system and while waiting for the bus. You can even invite a representative from your local transit company to meet with your employees and address their questions and/or concerns.

## **Design and Implementation**

Implement the following strategies to increase the use of mass transit:

- Evaluate how well transit serves employees' needs by assessing access and availability from their homes to the work site. Consideration needs to be given to the distance from the transit stop/station to the work site, scheduling of service and proximity of transit stops in employees' neighborhoods.
- Negotiate with local operators for changes in routes or stops to improve service.
- Provide transit information on routes, schedules and fares. Try to customize appropriate information by displaying a map that shows all transit routes and schedules that serve the work site.
- Provide on-site sale of transit passes, vouchers and subsidies.
- Assist in the initial trip planning by identifying routes and schedules for employees.
- Promote the transit program by distributing marketing materials and by featuring articles on transit riders in the employee paper and other employer publications.
- Address safety concerns of employees by improved patrols (especially in winter months), enhanced lighting and "buddy system" for transit riders who must walk any significant distance to a bus stop.

## **Supportive Strategies & Incentives**

Complementary measures that encourage transit use include: on-site monthly transit pass sales, company vehicles available for mid-day business trips for transit users, guaranteed ride home programs, personalized route/scheduling assistance, cash incentives and transit system marketing efforts.

## **Effectiveness**

Although employees' ability to ride transit to work will vary greatly according to the availability of transit services and their work and personal commitments, transit usage is one of the most effective trip reduction strategies – for every one bus rider, one trip is reduced; thus, riding the bus to work is twice as effective as two employees riding together in a carpool.

## | VANPOOLS AND BUSPOOLS |

VANPOOL MARKET PROFILE	
☺	7-15 people
☺	15+ mile commutes
☺	30 +minute commutes
☺	Similar regular schedules
☺	Cluster of 15-30 in 3-mile radius
☺	Small clusters along route

Vanpooling refers to an arrangement where several people (7 to 15) share the ride to work in a van. Vanpooling is ideal for employees who live at least 15 miles from the work place. Usually, the driver rides free in exchange for driving the van, keeping it clean and arranging for service. Often, the driver also gets to use the van for personal use evenings and weekends. Passenger fares cover the expenses of the vanpool. In some cases, an employer may help defray the cost of vanpooling by absorbing costs and/or providing riders with financial incentives. Fares are based on the commute distance and the number of passengers in the van. So, longer commutes may be more economical than shorter ones. Also, when there are empty seats on the van, passenger fares go up, as there are fewer people to share the expenses.

The **highest** potential for vanpooling is among employees who live 20 miles or more from work and have travel times of 30 minutes or greater. Clusters of 15-30 people should be identified to form a 12-15 passenger vanpool. The size of the cluster area should be two to three miles in size, but with commuting distances of greater than 30 miles, larger cluster areas may become viable. Clusters oriented to the carpool route can be established, which are composed of smaller groups picked up along the route to work.

### There are four basic types of vanpooling:

1. **Employer Purchased Vans:** The company buys the vans and administers the program, including providing for maintenance and insurance. Costs may be recovered through fares.
2. **Employer Leased Vans:** The company leases the vans and then, based on the terms of the lease, administers all or part of the program
3. **Third Party Vans:** A vanpool vendor provides the vanpool vehicle, all maintenance, and insurance for one monthly fee. Either the employer can obtain this on behalf of employees, or a group of employees can contract with the vendor. Fares are paid by the employees or employer to the vendor.

4. **Owner Operated Vans:** An individual employee independently buys a van and administers all aspects.

Buspooling is similar to vanpooling, but is usually used for transporting 16 to 45 employees, who live 25 miles or more from the work site, in a bus. Although it may seem like buspooling may be more economical than vanpooling, it's as expensive as, if not more than vanpooling.

The **highest** buspool potential is for employees who live 30 miles or more from the work site with a cluster of 20 to 30 commuters for a 16-passenger buspool and 65 to 90 commuters for a 45-passenger buspool. The cluster area should be two to five miles in diameter, with larger areas becoming viable with commuting distances of 40 miles or more. Clusters oriented to the buspool route, composed of smaller groups picked up along the route to work, are the norm.

#### **Buspooling requires:**

- A high-density destination, such as a Central Business District,
- A high-volume collection point such as a park-and-ride, and
- Long commute distances.

Buspools are usually operated through: independent single operators that operate one or more routes (entrepreneurs), charter bus companies (labor costs may be high), and commuter companies (using a commuter-employee as a driver) that also maintain the vehicle.

#### **Benefits**

Employers benefit from vanpooling/buspooling because:

- Employee productivity is enhanced as a result of reduced driving stress,
- Tardiness is minimized because the driver and riders have a schedule to keep that allows them to arrive on time,
- Morale and general satisfaction with work increases, and
- Savings are achieved through reduced parking expenditures,
- Provides an employee benefit, and
- Enhances public image.

Vanpooling/buspooling is popular among employees and can lead to:

- Savings of commute costs,
- Reduced stress, and
- Increased personal time on the van/bus to read, sleep or work.

For the community, vanpooling/buspooling provides:

- Reductions in congestion. Each van can remove as many as 14 other vehicles from the road, and
- Improved air quality (a typical vanpool can reduce almost 40 pounds of pollution every day).

## Cautions

Expect “erosion” of interest in vanpooling as some potential members change their minds. For this reason, it is recommended that a vanpool group receive some minimal support if possible, to get started, even before it is fully subscribed. It is easier to recruit riders to a vanpool that is already “on the road” than to one in the formation process. Maintain waiting lists for existing vanpools, so that any vacancies that occur can be filled quickly.

Make certain the vanpool has adequate insurance coverage. Employers with fleet insurance often include the vanpool insurance with their fleet coverage. For an employer without existing fleet insurance, or an individual owner-operator, obtaining vanpool insurance can be difficult. Many insurance agents are unfamiliar with the noncommercial status of commuter vanpooling. In any event, an employer will want to review its risk management policies and existing coverage.

Establishing objective driver selection criteria enables an employer to have some control over this important aspect of vanpooling. Reviewing driving record, requiring proof of ongoing liability insurance on the driver’s personal vehicle, and consulting with the driver’s supervisor regarding work habits and citizenship will provide assurance that reasonable safeguards have been established in screening potential vanpool drivers. Providing Driver Training is also recommended.

Vanpool drivers in the State of California must obtain a medical certificate confirming good health and must carry a sworn statement attesting to no convictions of reckless driving, drunk driving or a hit-and-run offense in the last five years. A valid Class 3 license is required.

Pay attention to maintenance and upkeep of the vans. California state law requires the van be identified with a “Vanpool” marking on three sides (two sides and rear), which must be visible from 50 feet. Further requirements include maintaining a fire extinguisher and first aid kit on board. The vehicle must receive regular safety inspections and the maintenance records for the past year must be provided, if requested, to any Highway Patrol representative. Identify appropriate procedures in case of a breakdown. When deciding between several vanpools and a buspool as an option, look closely at cost efficiency; vans may be cheaper.

## Design and Implementation

Designing a vanpool/buspool program will take some time. The following are some of the essential steps necessary for developing a vanpool/buspool program:

- Decide on the vanpooling arrangement and type of buspool that will suit the organization’s needs.
- Identify potential poolers based on a plot of employee residences (i.e., density map), an employee survey or review of employee records.
- Develop employee interest by announcing potential routes.
- Determine potential by meeting with the candidates. Combine with “Meet-a-Match Parties.”
- Arrange a meeting of the potential poolers if there are enough who are interested.

Experience shows that three potential vanpool riders need to be identified to fill a single seat.

- Describe the program components such as cost, insurance requirements, maintenance, etc.
- Select drivers and alternates. (May not be needed for buspooling).
- Discuss and establish routes, schedules and procedures for collecting fares for the first month.
- Conduct a driving record check on the drivers and the alternates. Obtain a medical certificate from them.
- Order van and secure a van delivery date. Make arrangements for the bus by working with either the commuter company, independent operator or charter company.
- Make sure to keep the poolers interested if there is a delay period.
- Provide on-going assistance once the program is operational and track the ridership.

As with any program where company liability is a consideration, develop clear policies and procedures for vanpool participation. Establish the responsibilities of the employer, the driver, and passengers in the vanpool arrangement.

### **Supportive Strategies & Incentives**

Complementary measures that support vanpooling/buspooling programs include: preferential parking for pools, guaranteed ride home programs, regional rideshare matching, driver training programs and flex-time. To help “kick-start” a vanpool group in the formation process, an employer may offer a subsidy for a short period of time, to get the group “on the road.” It’s often easier to recruit riders to a vanpool that’s already operating, so, in many cases it’s a good idea to start operating when 60-70 percent of the capacity of the van is committed. An example would be paying for  $\frac{3}{4}$  the vanpool expenses the first month,  $\frac{1}{2}$  the expenses the second month,  $\frac{1}{4}$  the expenses the third month, and allow the group to fully support itself beginning in the fourth month. This would allow the group some time to recruit additional passengers and become accustomed to the procedure of paying the fare in advance.

Another effective support is an empty seat subsidy. An employer might agree to underwrite the cost of up to a certain number of empty seats (perhaps three, for instance) for a limited period of time, such as three months. This gives the group some time to recruit replacement riders and helps them recognize their responsibilities in controlling vanpool costs.

Another way to recognize and support the vanpool program is to provide a “loyal rider” or “loyal driver” bonus (e.g., after 11 months of riding a vanpool, riders receive their 12th month free; and, since the driver’s commute is “free,” the driver bonus should be equal to the monthly fare passengers pay.

Employers can also support a vanpool program by offering payroll deduction of the vanpool fares. Be aware, however, that with fluctuations in ridership come fluctuations in fares. This could be a nightmare for the Payroll Department unless the employer is willing to set a flat fare

for riders and absorb the costs when someone drops out of the van.

And, employers can support a vanpool program by examining company policies for ways to accommodate vanpoolers. For instance, a policy that meetings will not extend beyond quitting time, so that poolers can join their pools in a timely fashion is of great value.

### **Effectiveness**

Vanpooling is more effective than carpooling in terms of reducing trips, but vanpools are harder to organize and appeal/apply to fewer people. A nine-person van can remove eight vehicles from the road assuming the riders all drove alone to work prior to joining the van.



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## NOTES



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