

# Merge Lanes Ahead

/////// *Conserving energy through land use and transportation planning.* ////

## Reducing Automobile Travel

**T**his fact sheet looks at ways to cut automobile trips – particularly trips during peak travel times that involve one person driving alone. The discussion is divided into three sections: car-based alternatives, non-car suggestions, and a detailed look at three innovative ideas.

### Automobile-based Alternatives

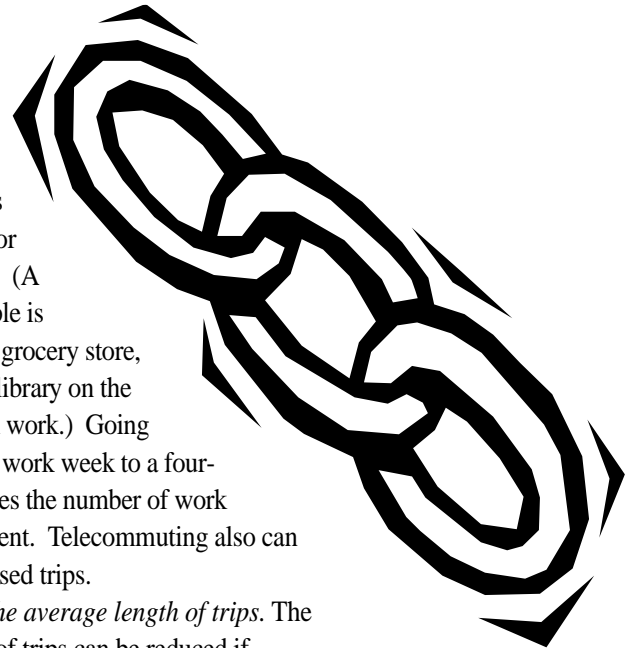
There are three basic strategies to cut energy consumption by cars:

*Reduce the average number of trips.* The average number of trips per day can be reduced in a number of ways. Some trips can be

combined by adjusting routes and schedules, or “trip chaining.” (A common example is stopping by the grocery store, post office and library on the way home from work.) Going from a five-day work week to a four-day week reduces the number of work trips by 20 percent. Telecommuting also can reduce work-based trips.

*Reduce the average length of trips.* The average length of trips can be reduced if people consider distance when making decisions about where to live, work and shop. Choosing a home that is five miles from work rather than ten would save 2,500 miles per year or about \$1,000 per year in car expenses.

*Increase the number of people riding in each car.* Carpooling, or ridesharing, is a low-cost alternative that has several benefits. In many metropolitan areas, car pools can shorten commuting times by taking advantage of HOV (high occupancy vehicle) lanes reserved for vehicles with more than one occupant. Carpooling also can reduce commuting costs. According to the Los Angeles-based Commuter Transportation Services, an individual in a car pool can save as much as \$2,000 a year in out-of-pocket commuting costs. This does not factor in costs savings related to reduced levels of air and water pollution and time lost due to congestion.



*This fact sheet is one of a series examining the relationships between transportation, land use and energy.*

*Other topics include:*

- Fact Sheet 1..... Introduction*
- Fact Sheet 2..... Transportation and energy consumption*
- Fact Sheet 3..... Traffic congestion*
- Fact Sheet 4..... Street design*
- Fact Sheet 5..... Land use and transportation*
- Fact Sheet 6..... Economics of driving your car*
- Fact Sheet 8..... Community case studies*
- Fact Sheet 9..... Road blocks to change*

*For more information, or to order additional copies of this fact sheet or any other fact sheet in the series, please contact: Julia “Alex” Magee, 1000 Friends of Florida, Post Office Box 5948, Tallahassee FL 32314-5948, or call (904)222-6277. Check out our home page at [www.1000fof.org](http://www.1000fof.org) for additional information.*

## Non-automobile Alternatives

Of course, one of the best ways to reduce automobile trips is to leave your car at home! There are a number of ways to get around without using a car. They include:

*Public transportation.* This is probably the best known alternative to the automobile. From a cost standpoint it is very inexpensive compared to a private car. Public transportation also avoids parking costs and wasted time sitting in congestion (where there are HOV lanes.)

*Bicycling.* The bicycle is another inexpensive alternative to the automobile. Bicycles use no fossil fuel, give off no air emissions, are quiet, healthy, inexpensive to own and operate, and need minimal paving for bike lanes and parking. Bicycles are much more popular in Europe than in the U.S. In fact, in some Western European countries, 20 percent of the trips are made with bicycles.

(This compares to less than one percent in the U.S.) Bicycles are most feasible for trips of less than five miles, which represent 63 percent of all U.S. automobile trips (National Personal Transportation Survey 1990). A number of cities have begun to build more bicycle trails and bicycle lanes along streets and highways. Tucson, Arizona and Seattle, Washington are examples of two large cities that encourage biking by providing bicycle trails, lanes and parking facilities.

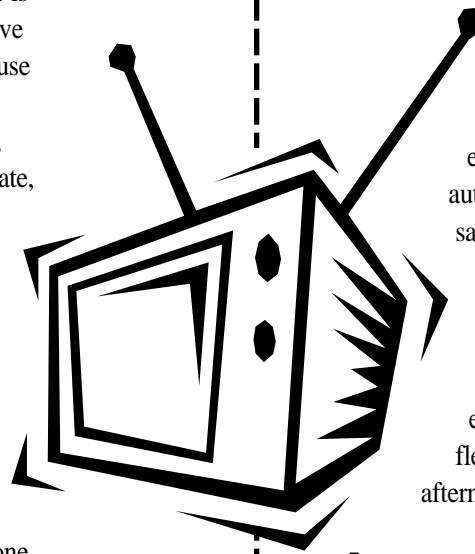
*Walking.* Walking is a realistic alternative for only a small number of trips, because

suburban development means that most trips are too long to be made on foot. Before World War II, employees lived close to their jobs and shopping, and walking was one of the dominant means of travel. For walking to regain its prominence, changes will have to be made in land use patterns.

*Home delivery and pick-up services.* Using home delivery and pick-up services can reduce the number of trips made as well as save time.

*Television and online home shopping options.* Improvements in telecommunications and personal computer use have made home shopping a feasible and effective way to reduce automotive use, save energy, and save time.

*Flex-time and staggered work hours.* Staggered and flexible work hours offered by some employers allow employees the flexibility to avoid morning and afternoon rush hours.



## Innovative Alternatives

A number of businesses and communities around the country are using new and creative ways to get people to work, shopping and recreation. Three of these ideas are explained below.

*Telecommuting.* Advances in computer and telecommunications technology are allowing some innovative companies to let their employees work at sites other than the central office. There are two forms of telecommuting. Home-based telecommuters work at home and do not have to commute at all. Regional-based telecommuters travel to regional offices that are closer to home, and often can be accessed by walking or bicycling. A typical telecommuter spends one or two days a week at home or at the regional office.

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The advantages of telecommuting include improved productivity and reduced employee turnover, as well as reductions in traffic congestion, air pollution and employee parking. Disadvantages include the feeling of isolation, lower employee morale, and concerns about work image.

Many pilot telecommuting projects have been underway since 1990. In California, 15 state agencies are involved in telecommuting. After two years, these agencies showed a 30 percent reduction in vehicle trips. Today it's estimated that there are 200,000 telecommuters in California.

A number of federal agencies also are promoting telecommuting. The Southern California Association of Governments (SCAG) believes that telecommuting would be even more popular if communities would revise local government regulations relating to home offices, create incentives for businesses to establish local work centers and video conferencing facilities, and liberalize deductibility of home offices. Telecommuting could dramatically affect work-based travel in the U.S. SCAG believes that 20 percent of the Southern California workforce will be telecommuting at least one day a week by 2010.

*Station Cars.* Station cars are a new, experimental transit service designed to get more out of cars and mass transit. Station cars are small cars, usually two-seaters, powered by electricity, that are available at transit stations so riders can get home, to work, or to the store, and run errands during the



day. Martin Bernard, the executive director of the National Station Car Association, describes how the system would work:

“If you’re a subscriber to the station car system, you can jump into any available station car, drive it to nearby destinations, and leave it for another subscriber to use. The cars are intimately attached to the station, however, with most starting at the station, then migrating out around the station during the day, and migrating back to the station in the evening. In the evening, commuters will take the cars home to use that night or over the weekend.”

Transit agencies are excited about the potential for station cars because the dispersed land use pattern in the suburbs makes daily movement almost impossible. These cars would be used by many different drivers throughout the day. The station cars have been compared to the rental fleet of “white bikes” available at many rail stations in Holland for travel around the station.

Pilot programs using station cars are underway in New York, Boston, Chicago, Philadelphia, Atlanta and San Francisco. A station car program operated by Alamo

Rent-a-Car will be tested in Dade County beginning in June 1996.

*Golf Carts.* Another innovative concept being used in several communities is the golf cart. In Sun City, Arizona, approximately 25 percent of the 60,000 residents own golf carts.



These carts are licensed by the Department of Motor Vehicles and are street legal. They provide an alternative means of travel to shopping, medical facilities and community

centers. For elderly residents, many of whom no longer drive, golf carts provide an attractive alternative.

Residents in hot climates prefer the cart over the car because it is much cooler to get into an open cart rather than a locked car when the temperature rises to 100 degrees. The city of Palm Desert, California is supporting golf cart use aggressively. It received state funding to design streets, signs and recharging facilities for the carts. Peachtree City, GA is an example of a non-retirement community that uses golf carts. About half of the

town's approximately 7,500 households own golf carts. Half of those use the carts only for non-golf purposes. Peachtree City has 60 miles of cart paths with under- and overpasses at major streets. The paths connect schools, recreational facilities and shopping and provide an alternative to bicycling and walking for those too young or too old to drive.

### **What you can do**

This fact sheet has provided a number of alternatives to driving your car. Some of the ideas are easy to implement; others require some sacrifice. Some require action on the part of government or employers while others can be implemented by individual drivers. While none of the alternatives provides "the one solution" to our overdependence on the automobile, any movement away from our cars is a step in the right

direction – particularly in a nation with almost 134 million cars (Gross and Feldman 1996.)

### **References / Resources**

- Alamo's Station Car Press Release. April 15, 1996. Downloaded from <http://www.stncar.com>
- Bernard, Martin. 1995. Station Cars: Personal Mobility with Reduced Cost. *On the Ground* 1, No. 3.
- Ewing, Reid. 1995. *Florida's Mobility Handbook: Guide to Transportation and Land Use Innovations*. Tallahassee, FL: Florida Energy Office, Florida Department of Community Affairs.
- Gross, Marilyn and Richard Feldman. 1996. *National Transportation Statistics 1996*. Washington, DC: U.S. Dept. of Transportation, Bureau of Transportation Statistics.
- Handy, Susan. 1995. I See the Future, But is it Telecommunications? *On the Ground* 1, No. 3.
- Kitamura, R., J. Nilles, P. Conroy, and D. Fleming. 1990. *Telecommuting as a Transportation Planning Measure: Initial Results of California Pilot Project*. Reprint No. 58. Berkeley, CA: The University of California Transportation Center.
- Mokhtarian, Patricia. 1991. *An Empirical Analysis of the Transportation Impacts of Telecommuting*. UCTC No. 131. Berkeley, CA: The University of California Transportation Center.
- Smart Valley, Inc. 1994. *Smart Valley Telecommuting Pilot Project: Final Pilot Results + Appendix*. (Downloaded from WWW.)
- Steiner, Ruth. 1995. Are Pedestrians Commercially Viable? *On the Ground* 1, No. 3.



**ONE WAY**

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