



## Want a Better Lifestyle and Environment? Get on a Bike

By Rachel Stern, Science Interchange Reporter

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Bob Hoffman, a dentist in San Rafael, rides his bike almost every day, including to work.

Joe Breeze rides his bike an average of 4,000 miles per year, most of which are to work or commuting to school with his child.

And Wendy Kallins, fed up with the traffic congestion of Marin County, developed Safe Routes to School, a program designed to encourage children to walk and bike to school.

These three bicyclists are only a few of the many Marin residents who have made the switch to biking because of the impacts of cars on the environment and their health.

According to the Union of Concerned Scientists, passenger vehicles account for more than 40% of gas consumption in the United States. For every gallon of gasoline burned in a combustion engine, over 24 pounds of greenhouse gases are released into the atmosphere. The process of producing gasoline--from pumping it out of the ground to getting it to a gas station--produced almost 1.7 billion pounds of smog-forming particles and three quarters of a billion pounds in toxic gas emissions in 2000.

However, not driving for just one month keeps six pounds of carbon monoxide, one pound of hydrocarbons and one-half pound of nitrogen oxide out of the air, writes Katie Alvord in *Divorcing Your Car* (New Society Publishers, 2000). Commuters who take public transportation can save up to 400 gallons of gas a year.

Alvord also reports that Americans spend up to 25% of their incomes on car maintenance and gasoline. So riding a bike more often than driving can save money, as well as provide other perhaps less tangible benefits.

Bob Hoffman, the dentist in San Rafael, puts more miles on his bike than his car. He rides to work and around the community "for health, good citizenship and to save resources."

Joe Breeze, a Fairfax resident, rides to and from school with his eight-year-old, to do errands, and to business meetings. Breeze estimates that of the 4,000 miles average per year he spends on his bicycle, about 3,000 miles are for transportation purposes.

Breeze said that his health has improved dramatically since he started using his car less. He is also a member of the Marin County Bicycle Coalition, which has raised millions of dollars to improve bicycle and pedestrian paths and which also educates motorists and bicyclists to share the road.

And Wendy Kallins, who developed the Marin Safe Routes to School program with the Marin County Bicycle Coalition, said, "I hate being in traffic; I would rather be outside and getting some exercise."

The Safe Routes to School program encourages children to walk and bike to school through classroom presentations and by making it safer to commute by foot or bicycle. By getting this kind of regular exercise, children may be able to prevent obesity, rates of which the U.S. Centers for Disease Control report as epidemic. "I wanted an opportunity to change the behavior of kids and get away from the automobile culture that we live in," said Kallins.

In Marin, traffic counts and surveys have determined that 21% of cars on the road during the morning commute are parents driving their children to school, according to the Marin County Congestion Management Agency.

Safe Routes to Schools, one attempt to lower this percentage, was launched in August 2000 as one of two programs selected to serve as a demonstration for the nation during the 2000-2001 school year. In its first year, the program functioned in nine middle and high schools. It has been extended to 22 schools for the 2002-2003 year.

In the fall of 2000, 21% of students walked and biked to school compared to 38% in the spring of 2002. International Walk to School Day is October 2.

"The more I work with kids and the more research I do helps me to change a lot of my behaviors," said Chris Davis, the curriculum developer and an instructor for the Safe Routes Projects. "I can't go in and tell kids why they should walk and bike until I understand how detrimental it is to our personal health, our community and the health of our environment."

Davis first saw the harm of car emissions when she stood atop Mount Tamalpais, only to gaze upon pollution hanging over the San Francisco Bay. She now bikes religiously, she said, except for long trips or when something needs to be transported.

"We need to make sacrifices," said Davis, "Otherwise the pain we will suffer in the long run is much greater."

The "pain" Davis refers to is global climate change. The frequency of extreme weather events has increased by 28% since 1975, according to a report by the U.S. Environmental Protection Agency last June. Other scientists' observations may have confirmed that the Arctic icecaps and other land glaciers are melting, which could threaten coastal regions with flooding and drown small islands.

These changes in the global weather may be partially due to car emissions. Locally, biking to school or work might help slow those changes down.

## RESOURCES

Union of Concerned Scientists on research on fuel efficient cars: [www.ucsusa.org](http://www.ucsusa.org),

Department of Energy on alternative fuels: [www.afdc.doe.gov/whatsnew.shtml](http://www.afdc.doe.gov/whatsnew.shtml) or [www.nrel.gov](http://www.nrel.gov)

Marin County Bicycle Coalition: [www.marinbike.org](http://www.marinbike.org)

Safe Routes to Schools program: [www.saferoutestoschools.org](http://www.saferoutestoschools.org), or call 415-456-3469.