Safe Routes to School

Practice and Promise

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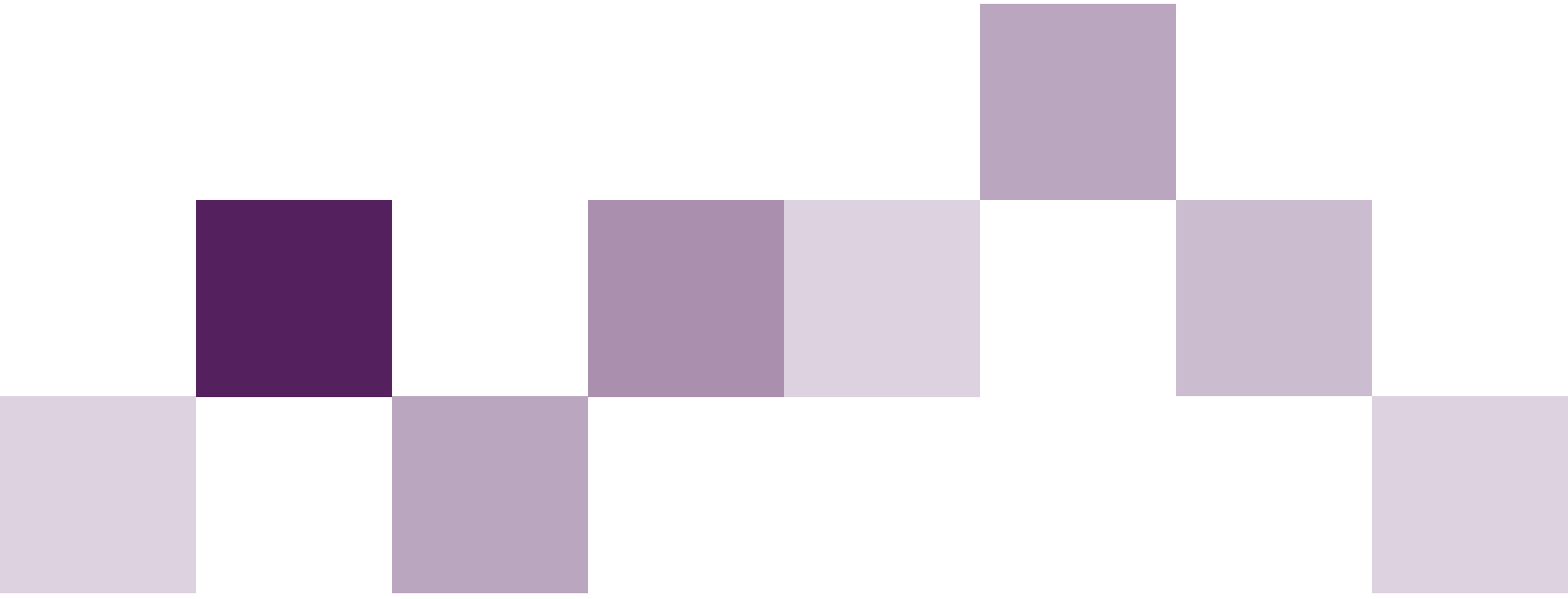

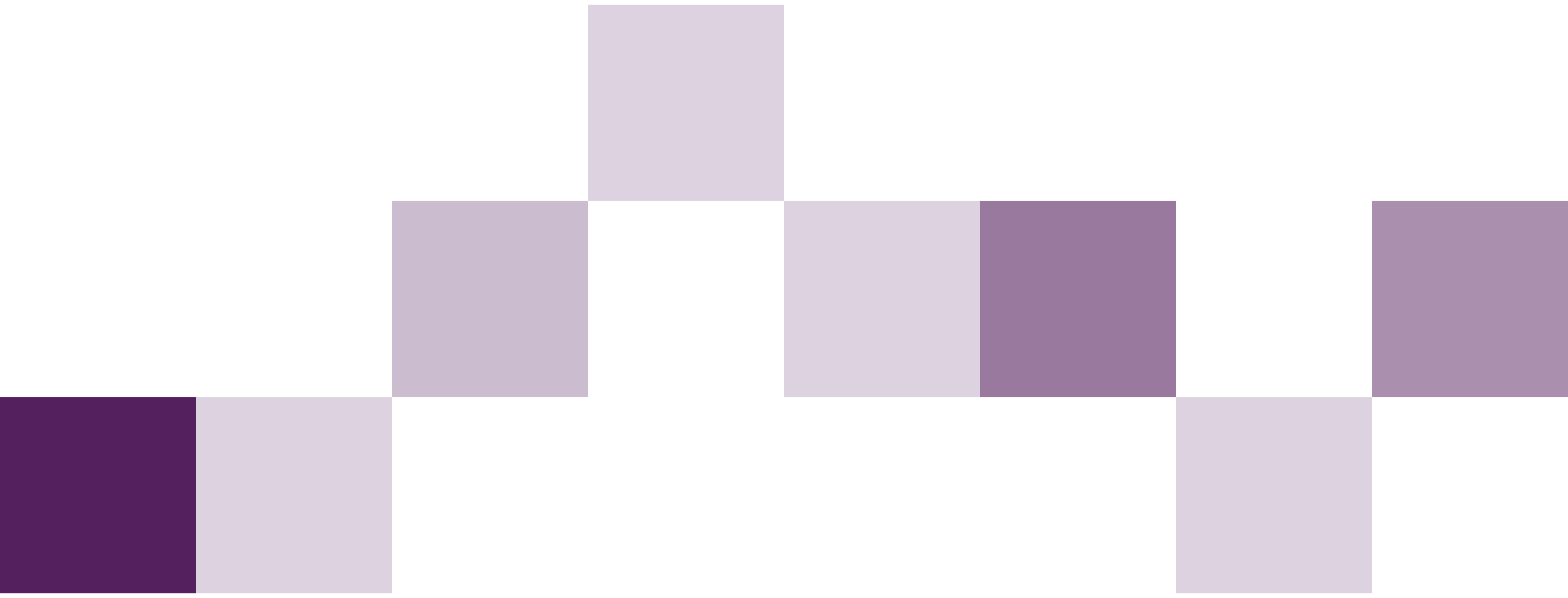

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Preface

Safe Routes To School (SR2S) projects are popping up all over the country. Enthusiastic parents, teachers, community activists, and health professionals are advocating for changes that get children out of cars and onto their feet and bicycles.

The benefits of walking and bicycling, especially getting into the habit as a young person, are compelling. Two United States government agencies have set targets for increasing these activities. The Department of Transportation, in its 1994 National Bicycling and Walking Study, specified two goals for the nation:

- To double the percentage of total trips made by bicycling and walking from 7.9 percent to 15.8 percent;
- To reduce by 10 percent the number of bicyclists and pedestrians killed or injured in traffic crashes.

The Centers for Disease Control and Prevention (CDC) in 2001 established two objectives in its report Healthy People 2010:

- To increase the percentage of children five to 15 years old, who live within one mile of school and regularly walk to school, from 30 percent to 50 percent;
- To increase the percentage of children five to 15 years old, who live within two miles of school and regularly bicycle to school, from 2.4 percent to five percent.

As the SR2S concept continues to gather momentum, people have begun to ask:

- Why do so few children walk or bike to school, and why is this a problem?
- Is there a "right" way to go about creating a SR2S project?
- Are there risks in switching the normal car-to-school commute to a walking-and-bicycling parade of kids and adults?
- How will we know if we have succeeded?

Are these questions you have asked? If you are a policy maker, program planner, provider of funding or administrator, and are faced with deciding how or even whether to support SR2S efforts in your area, then ***Safe Routes To School: Practice and Promise*** is for you.

This publication is designed to provide enough information about SR2S programs so those in decision-making positions will be able to determine how to allocate scarce resources and to assure positive outcomes from SR2S efforts. It delves into the history of SR2S, considers risks and benefits, offers examples, and lists supportive agencies and organizations.

Chapter One Safe Routes To School – Why? discusses the need for SR2S efforts.

Chapter Two Safe Routes To School (SR2S) – What Does That Mean? describes the education, encouragement, enforcement, and engineering approaches to SR2S.

Chapter Three Evaluation and Outcomes – How Do You Measure Success? details information on practical evaluation measures you can use to document success. It explains how you can help communities with the critical task of gathering data so that all can learn what works.

Chapter Four Promising Practices – From Whom Can We Learn? describes the SR2S efforts of different types of communities so that you can learn from their successes and challenges.

Chapter Five Supporting Safe Routes To School – Where Do We Go From Here? covers common questions and realistic answers about SR2S.

The Appendices include examples of the sorts of assistance local groups need, based on the experience of statewide or regional technical assistance organizations. We include a comprehensive listing of SR2S efforts around the world, with contact information.

We offer this guide in support of your work with local activists as you collaborate to make communities safer and healthier for children.

If you are a policy maker, program planner, provider of funding or administrator, and are faced with deciding how or even whether to support SR2S efforts in your area, then **Safe Routes To School: Practice and Promise** is for you.

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1: Safe Routes To School – Why?

Pose the question "How did you get to school when you were a kid?" to a roomful of adults, and chances are the great majority will say that they walked. If you ask them what they experienced while walking, the following responses are typical:

My brothers and sisters and I got together with some neighbor kids and we all walked together. It was really fun.

> *Man, we were really awake when we got to school! It was cold out in the morning and walking really got our blood going.*

My mom walked with me when I was little, and then I walked with my big sister. I loved it when we got to go by ourselves – it made me feel really grown up!

> *It was always nice and quiet walking down the road in the morning. The air smelled good and we got a chance to see all the trees blossom, change their leaves and all.*

When I got to be about 12, I didn't walk anymore. I rode my bike and that was a whole new feeling of freedom. My friend and I used to zoom through the streets. There weren't very many cars out.

The common goal of Safe Routes To School projects is to increase the number of children who walk and bike to school safely.

Seldom in our years of working with people to develop Safe Routes To School (SR2S) in their communities have we heard an adult say anything negative about walking to school. There may have been the occasional bully, but, as one man said, "He gave us a reason to run fast and we got stronger!"

Today however, in the United States, fewer than 15 percent of children walk to school every day.[1] In response to this situation, many efforts to encourage walking and biking to school have sprung up. The growth of these efforts has come to be called the SR2S movement. Some projects have existed for several years; some started recently. Their common goal is to increase the number of children who walk and bike to school safely.

To understand the SR2S movement, we must first answer this question: Why has there been a decline—in just one generation—of children walking and bicycling to school?

That is not an easy question to answer. We all realize that the United States is not the same as it was in 1950. However, if we look at how life in this country has changed during the past 50 years, some explanations begin to emerge. There have been significant changes in two major areas: community design and travel patterns.

Community Design and Travel Patterns

Before World War II, Americans lived in compact towns and cities, and they walked to shops, schools, and work. While the United States population has nearly doubled—from 150 million in 1950 to 287 million in 2002—and the population in urban areas has increased by 25 percent, the percentage of urbanized land has changed much more dramatically—it has quadrupled. The suburbanization of America has resulted in communities that are significantly more spread out. The size of residential lots is much greater now than before 1950. For example, in 1950, around the Chesapeake Bay, each person required .18 of an acre for residential and commercial use. By 1988, each person required .65 acre.[2, 3]

This expansion around towns and cities significantly changed travel patterns. Where walking and transit use once predominated, the private car has become the normal way to get around. The number of vehicle miles traveled (VMT) increased from 718 billion per year in 1960 to more than two trillion per year in 1999.[4] As with land use, the increase in motor vehicle use has grown much faster than the rate of population growth. Driving to school has significantly contributed to increased auto use. It has been estimated that the "school run" adds 20-30 percent to traffic volume during the morning commute.[5]

Changes in land use and driving patterns certainly seem to have contributed to the decreasing number of children walking to school. Have other changes led to the Safe Routes To School movement? It appears that the answer is yes.

Environmental Quality

At the same time as land use and transportation practices have been changing, we have seen significant changes in environmental quality. Air pollution concerns in the 1960s and '70s resulted in the passage of regulations aimed at reducing various pollutants. While many air

pollutants have decreased during the past 30 years, the decline is now threatened by the continuing rise in the number of cars and trucks on the road, and in the miles each vehicle is driven.[3] However, one important emission has not decreased—carbon dioxide (CO2). This "greenhouse gas" is released in direct proportion to the gallons of gasoline consumed. The amount of carbon dioxide American cars and light trucks emit into the atmosphere has steadily increased. From 1970 to 1999, the amount increased by 56 percent, culminating in an estimated 300 million metric tons of carbon being released in the latest year.[6, 7] Concerns about global warming have grown during this period as well.

Changing land development and driving patterns have also caused loss of natural habitat and farmland. Water quality suffers because more pavement is required to handle the increase in vehicles. This results in runoff of water laced with toxic substances from the pavement into lakes, streams, and rivers instead of being absorbed by the earth.[3, 8]

Children's Health

What has happened to the health of children in this time? There are some strong indications that children's health has suffered.

First, thousands of children each year are killed and injured in motor vehicle crashes—as passengers, pedestrians, and bicyclists. Motor vehicle injury is the leading cause of death for children aged two to 18. The number of children injured and killed in traffic has fallen over the past 20 years, though the rate of injury for children is highest among all age groups.[9] There is evidence that lowered death rates for child pedestrians and cyclists do not reflect greater safety—just fewer numbers of children walking and bicycling.[10]

Second, a large number of American children—more than 3.8 million in 1999—are afflicted with asthma, which can be triggered and exacerbated by air pollutants. Asthma rates throughout the population have been increasing for 40 years.[11, 12, 13]

A third indication of ill health among children is excessive weight gain, tied closely to increases in chronic conditions such as diabetes. The percentage of American children who are overweight has steadily increased, from approximately four percent in the 1960s, to more than five percent in the 1970s, to the 2001 level of more than 13 percent. Increases in childhood weight problems have been accompanied by even greater increases in obese and overweight adults—an estimated 61 percent of the population aged 20 to 74 years as of 1999.[14, 15]

It is important to note that low-income and ethnic minority children

are most affected by obesity, injury, and asthma.[16, 17] These children do walk to school more than their more affluent peers, but poor air quality and speeding traffic put them at higher risk.[18] For these children, there are compelling reasons to provide truly safe routes to school. Walking is an excellent way to promote their health, and they are already doing it. Supporting this activity is a first step toward minimizing health disparities.

Parents

We realize there are many reasons parents are reluctant to allow their children to walk to school. We know that it is the parents who make the choices; if children were allowed to choose, most say that they would rather walk. But parents drive them because they fear traffic dangers, or they worry about strangers bothering or kidnapping their children; although kidnapping is statistically a very small risk, it looms large in the fears of parents. Parents also may drive their children to school because they feel that they are so busy the only time they have with their children is in the car.

SR2S Benefits

Valid as these reasons why children don't walk to school are, there also are benefits that could be gained from the daily, active trip to school:[19, 20, 21]

- Children who are active are alert and do well in school.
- Being active improves self-image and independence.
- Physical activity prevents obesity and promotes healthy heart and lungs, lessening the risk of cardiovascular disease.
- Children who are out and about in their neighborhoods develop an understanding and comfort with their surroundings, and learn to make their way in the world.
- If fewer children are driven to school, fewer car trips are needed, thus reducing air pollution, noise pollution, and other environmental impacts of driving.
- Increasingly congested roads take a toll on the emotional well-being of adults. One less car trip gives a parent or guardian some breathing space in his or her day.
- When parents and children walk even a block or two together on the trip to school, the benefit of "quality time" comes in tandem with improved fitness.
- "Eyes on the street" is a phrase that describes a neighborhood where people watch the daily activities. When more people are out and about, having more eyes on the street helps to prevent crime.

Many Reasons, One Goal

SR2S advocates—parents, children, legislators, health professionals, school administrators, and environmental activists—have concluded that children's walking-to-school behavior is linked to land use, travel practices, and health effects. They also have concluded that it is time to reverse the trends. Some SR2S advocates have been primarily motivated by concerns about injury, and some by environmental deterioration, some by their shock at seeing children inactive and overweight.

Regardless of their specific concerns, SR2S advocates are working together to change the patterns of the past half-century. As more people wake up to the benefits of walking and biking to school, they join the movement to encourage these behaviors in their communities. They are committed to assuring that the children who grow up in the 21st century will be able to recall walking and bicycling to school among their favorite childhood memories.

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2: Safe Routes To School (SR2S)– What Does That Mean?

Safe Routes To School (SR2S) efforts have been inspired by a myriad of concerns—therefore those efforts look different from community to community. The SR2S founders in Odense, Denmark, were mainly concerned about how many injuries children were suffering on their city's streets. In the Bronx, New York, organizers also were concerned about injuries. In Toronto, the major concern was air pollution, and people understood that unless prevailing trends in travel changed, the situation would worsen. The California Department of Health Services entered the field in 1999 with a special interest in promoting physical activity for health. In Chicago, the Walking School Bus (WSB) program, sponsored by the Department of Transportation and the Chicago Police Department, responded to concerns about children's safety in high-crime neighborhoods.

Regardless of what the organizers name the project, all include a combination of activities that make it safer for children to walk and bicycle to school.

The National Highway Traffic Safety Administration (NHTSA) began funding Safe Routes To School in 2000, with two demonstration projects in Marin County, California, and Arlington, Massachusetts. NHTSA also began to gather and compile the array of SR2S activities into a central document, ***Safe Routes To School: Practice and Promise***, in the hopes of making information readily available to decision-makers. The development of this guide included researching the effectiveness of Safe Routes To School efforts.

Common Threads

Projects that improve walking and bicycling conditions for schoolchildren have sprung up all over the world during the past 20 years. Regardless of what the organizers name the project, all include a combination of activities that make it safer for children to walk and bicycle to school. When we use the term Safe Routes To School, we mean the whole array of efforts. The beauty of the SR2S movement is that it is enormously diverse. However, some common threads characterize communities

that demonstrate what we consider examples of "promising practices" in SR2S.

Based on the experience of many, we have identified key factors a community should have in place to provide comprehensive, effective, pleasant, and safe routes to school for its children:

- The community—especially parents and school officials—believes in the value of walking and bicycling to school, and encourages children to do so.
- Drivers are educated about how they contribute to traffic congestion, increase the risk of injury to children, and cause pollution. They also learn how safe driving reduces these risks.
- Drivers are alert to the sizes and behaviors of child pedestrians and bicyclists, and yield to them.
- Children and parents understand how to walk and bicycle safely and assertively.
- Officials enforce laws that support and protect walkers and bicyclists.
- Community planning for residential and school areas considers the safety and practicality of children walking or biking around their neighborhoods.
- Streets are designed to encourage walking and bicycling, with sidewalks, bike paths, bike lanes, and traffic-calming measures.

The "Four Es" & SR2S

The key factors for a successful SR2S project fit nicely into the transportation safety framework that is familiar to health and safety professionals: the "Four Es." Each "E" can be developed into an effort that supports SR2S goals.

- **Encouragement** – Make walking and bicycling more attractive by planning special events to celebrate active travel, beautifying walking/bicycling routes, and by sponsoring classroom activities and contests.
- **Education** – Teach children, adults, pedestrians, cyclists, and motorists about traffic laws and safe and courteous behavior on the road; and about the health, environmental, and safety benefits of walking and bicycling.
- **Enforcement** – Pass new laws or enforce existing ones to make it safe for children and adults to walk and bicycle. For example, enforce the law that requires motorists to yield to pedestrians at street corners or observe the speed limit in school zones.
- **Engineering** – Build a better environment for walking and bicycling. Plan compact neighborhoods and school sites; construct or maintain sidewalks and bike lanes; and install traffic signals or change the design of streets through traffic-calming structures such as chicanes and bulb-outs.

Most SR2S efforts involve more than one of the "Four Es;" many include all four. What follows are examples of ways that five different communities have utilized one of the "Es" as part of a broader effort.

Encouragement: Walk To School Day – National and International

Because walking to school is somewhat uncommon in the United States, it is important to encourage nonwalkers to try it. The activity most effective in getting large numbers of parents and children to **try** walking is Walk To School Day, an event that began in Great Britain in 1994. America's first involvement came in 1997 with the Partnership for a Walkable America.

The event has grown each year, with NHTSA's support through the Pedestrian and Bicycle Information Center. In 2002, three million people, in 28 countries, took part in International Walk To School Day. Quotes from a few of the American participants follow:

"It was a beautiful morning. Everyone had fun."
Alex, fourth-grader, Nebraska

"It was a wonderful experience. We had 513 students walk with their parents and siblings. We all had a great time. Thanks for the idea."
Tammy, parent, Texas

"I met the students at the driveway entrance to the school from Westwood. ... Jamie was so excited that her Mom drove across the railroad tracks and into the subdivision so she could walk to school. The duty teacher could not get over the high number of walkers for the day and less car traffic, too."
Carolyn, teacher, Ohio

Although Walk To School Day events cannot guarantee that students will continue to walk, they are a positive first step. With the large number of people walking, parents and children feel safer and have fun. Walk To School Day may help skeptical parents or school personnel to see the value of walking, so that they support ongoing activities. Many communities have asked their walkers to complete the NHTSA Walkability Checklist *(see Appendix C: Walkability & Bikeability Checklists)*, and on their walk to collect information about positive and negative experiences on various streets to help pinpoint areas that need attention from the local government.

Education: Marin Safe Routes To Schools – Marin County, California

The Marin County Bicycle Coalition used its SR2S demonstration project in 2000 to develop an extensive and continuing educational program for local schools. The project promotes walking and biking to school through

classroom education, contests, and events (i.e., Walk and Bike to School Days, Frequent Rider Miles contest, walking school buses, and bike trains), mapping, and community involvement.

The education component gives each participating school a toolkit, guidance, forms, newsletters, and other promotional materials. An SR2S instructor provides safety training for second- and fourth-graders and conducts a bicycle safety rodeo with assistance from law enforcement. Fact sheets for drivers build upon the safety message, letting drivers know of their responsibilities. The project also offers environmental education for sixth- and eighth-graders, exploring transportation choices and the effect of those choices on air and water pollution, and on greenhouse gas emissions.

After its first year, the Marin SR2S pilot project reported the following outcome at its 16 participating schools:

- The schools experienced a 57 percent increase in the number of children walking and biking, and a 29 percent decrease in the number of children being driven alone in a car.

Education: Active and Safe Routes to School "No Idling" Campaign – Toronto, Ontario

The Active and Safe Routes To School (ASRTS) program in Toronto, Ontario, has targeted auto air pollution as a major part of its campaign since 1996. ASRTS pinpointed car engines idling at schools as a major source of pollution. ASRTS launched a "No Idling" campaign across this Canadian province in April 2001. "No Idling," a social marketing effort, uses posters, stickers, printed educational materials, and volunteer parents, school staff, and students in dialogue at school. The materials are intended to dispel the myth that idling a car does not cause pollution, or that idling pollutes less than normal driving. In fact, ASRTS determined that an idling engine uses 3.5 liters of gasoline an hour, and 12 percent of urban smog is attributable to idling vehicles. "No Idling" kits were printed in English and French, and more than 1,000 have been distributed. ASRTS evaluated the effort via mail and phone questionnaire and determined that:

- More than 75 percent of the schools surveyed noted fewer idling vehicles after implementing the "No Idling" project.
- The estimated reduction of 247 hours per day of auto idling resulted in an estimated 210.5 fewer metric tonnes of carbon dioxide (CO2) emissions.
- Schools that requested the kit—rather than receiving it "cold"—were more likely to initiate activities. However, all schools had difficulty with specific pre- and post-campaign data collection.

Enforcement: Pedestrian Safety Enforcement (PSE) – Multiple Communities

It is a common complaint among walkers-to-school that automobile drivers seldom yield to pedestrians, even though many states have laws that require the driver to yield. Several communities have implemented targeted pedestrian safety enforcement (also known as "pedestrian sting").

Pedestrian Safety Enforcement (PSE) was first tried in Redmond, Washington, in 1998. Currently, the Redmond Police Department received many complaints from pedestrians and police officers about drivers' failure to yield to pedestrians—their estimate of the extent of the problem was that 50 percent of drivers did not yield to pedestrians under situations where the pedestrian clearly had the right-of-way and the driver had sufficient time to stop. Currently, the Redmond Police Department chooses sites for its PSE operations based on complaints and on collision data. Seven or eight officers take part in each operation, which lasts approximately two hours. At an intersection, police officers determine the reasonable stopping distance for a vehicle approaching a crosswalk where a pedestrian is attempting to cross. A plainclothes officer attempts to cross, while "spotters" and motorcycle officers are assigned to document whether motorists yield; those who do not are issued citations. The operation has increased police officer awareness of the problem. The officers have written a large number of driver citations, which are intended to increase yielding by drivers at intersections. PSE has been used in numerous cities, including Oakland, Santa Rosa, Santa Ana, and Montebello in California; Las Vegas and Carson City in Nevada; and various locations in Oregon and Maryland. During a one-year period in Oakland, police officers conducted 51 PSE operations, yielding 1,141 traffic citations and 15 arrests. Media coverage of the PSE operations has been good. This helps to spread the word to drivers outside the immediate area who see or hear reports on television or radio.

Engineering: Traffic Calming Measures – Odense, Denmark

Walking and bicycling to school are much more common in Europe than in the United States. However, injuries are also common. From 1955 to 1971, Denmark had the highest rate of child mortality due to road crashes in Western Europe. The city of Odense (population 180,000 with 38,000 children under 18 years) began working with all of its 45 schools more than 20 years ago. For each school, city staff drew maps of the area, showing where the children

traveled and what they considered dangerous. Proposals to improve the traffic environment were developed based on this information. Since 1981, approximately 200 projects have been implemented. Slow-speed areas, traffic islands, speed humps and separate foot and bicycle paths are all effective at calming traffic. Odense earmarks approximately $146,000* per year for safety improvements for children. As a result:

- 41 percent of Odense children bicycle to school and 21 percent walk.
- Twelve different roads that were studied showed decreases in speed from 28 to 19 miles per hour. On these roads, the total number of crashes has been reduced 82 percent, and the crashes are less serious.
- Citywide, from 1994 to 1999, traffic crashes involving walking and bicycling children six to 17 years old dropped 16 percent during school hours.
- Schools report that parents and students feel more secure. This perception of safety is considered as important a measure of success of the SR2S effort as statistics on traffic and injuries.

Putting It All Together

In a relatively short period of time, excellent work has been done to improve the experience of children walking and bicycling to school. While we know of no American community that has achieved all SR2S goals—at least 50 percent of children walking and biking to school, a significant proportion of all trips done by bike or on foot, and a pleasant, community-wide environment that encourages physical activity, community spirit, and children's well-being—significant steps have been taken to reach this ideal.

We celebrate each effort, community by community, as a step toward achieving national goals. There are many reasons to work on Safe Routes to School, many different approaches and many levels of effort. Section 4: Promising Practices of Safe Routes to School – From Whom Can We Learn? spotlights the promising practices of SR2S efforts that:

- have enough longevity to measure changes;
- have made an effort to evaluate their effectiveness; and
- have achieved a stable funding level.

There are SR2S efforts in many parts of the world. They are all slightly different, and they all need and deserve support to turn their promise—of healthier children and communities—into reality.

*All monetary amounts are given in U.S. Dollars.

3: Evaluation and Outcomes – How Do You Measure Success?

At the end of the day, everyone wants to know: "Were we successful? Is this community safer and healthier because of what we did?".

It is easy to be enthusiastic about a one-day walk to school or bicycle rodeo event. Once the enthusiasm of the event is over, though, Safe Routes To School (SR2S) leaders are left with the task of building an ongoing, comprehensive, community-change effort, which requires collaboration from many people and organizations, and money and time to implement. At the end of the day, everyone wants to know: "Were we successful? Is this community safer and healthier because of what we did?" Decision-makers, funders, and local advocates need concrete indications that the answers to these questions are "yes."

Indicators of Success

Evaluation frightens many people. Others just don't want to be bothered; they are engaged in positive activities, and children and parents are happy. However, as the movement of SR2S has matured in the United States, it has become clear that evaluation data are critical. Collecting data is important at the beginning of a project, in order to identify and address areas of concern. This identification of a problem is a powerful motivator for action to create safe routes to school. Ongoing evaluation helps to keep a project on track, and to document changes at different points in time.

Over the past several years, we asked numerous people involved in SR2S what evaluation information they want. We asked them:

- What information would help you know you have been successful?
- What would help you change strategies if something you're doing is not working?
- What information would help you gain buy-in from those who could support your efforts through legislation or funding?

Table 1 lists areas that were consistently mentioned.

Table 1

Key Indicators of Success for Safe Routes To School Efforts

Outcome	Measure Before and After	Desired Direction of Change
Behavior of children	■ Numbers of children walking to and from school	↑ More
	■ Numbers of children bicycling to and from school	↑ More
	■ Skills for walking and bicycling safely	↑ Better
Behavior of drivers	■ Numbers of vehicles arriving and departing school at morning drop-off and evening pick-up times	↓ Fewer
	■ Speed of vehicles in and around school area	↓ Slower
	■ Aggressive driving behavior (e.g., not yielding to pedestrians)	↓ Less
	■ Number of driving trips by parents and length of morning and evening commute	↓ Less
Community Facilities	■ Quality of walking environment: number and usefulness of sidewalks and bike lanes	↑ Better
	■ Safely designed intersections (lights, crosswalks, etc.)	↑ More
Crashes and Injuries	■ Number of traffic crashes involving children walking or biking to and from school	↓ Lower
	■ Severity of injuries to children from traffic on their way to and from school	↓ Less severe
	■ Number of conflicts between vehicles and pedestrians/bicyclists which would be likely to lead to crashes (i.e., "near misses")	↓ Lower
Community buy-in	■ Number of different types of people involved in the SR2S effort	↑ More
	■ Level of commitment and energy displayed by the SR2S collaborators	↑ Higher
	■ Parent enthusiasm about SR2S and allowing their children to walk or bike	↑ Higher
Environmental quality	■ Level of air and noise pollution in school area	↓ Lower
	■ Land devoted to parking and drop-off/ pick-up areas	↓ Less

Depending on how the leaders of the SR2S effort define the problem in their community, they might gather information on all of these measures, or only some. Some measures are technical and difficult to collect: air quality data, injury data, vehicle speed. Some are very easy: number of cars driving up to the school gate at a certain time. For many of the measures, the data collector will want to know more than just a simple number—perhaps a rate or a percentage, especially if working with several schools. It is important to note that crash and injury numbers may be low simply because fewer children walk or bicycle. In this case, this is not an indicator that a neighborhood is safe; it may indicate that parents don't consider the area safe enough to allow their children to walk or bicycle.

Gathering Data

Defining the problem gives the leader(s) the framework needed to gather information and statistics. Then they can decide which aforementioned measures will provide the information most likely to generate further support and best evaluate the effectiveness of the SR2S effort as it progresses. Unfortunately, many leaders, parents, children, and school personnel get caught up in the enthusiasm of the effort and neglect to gather basic information about the current situation in the community (e.g., How many people are walking? Frequency and type of injuries? Extent of air pollution from idling cars?). Without such baseline information it is difficult to pinpoint success and, without documented success, to continue the enthusiasm and funding for the efforts. The good news is that there are many different places you can find data.

The trick is to get enough information, but not get bogged down in details. The Safe Routes To School Working Group on Data Collection, sponsored by the League of American Bicyclists, suggests the sources listed in Table 2 for gathering useful data.

Evaluation Experiences from the Field

Because most SR2S efforts have not been in existence for a long time,

it is difficult to gauge their long-term success. We have indications from Odense, Denmark and Great Britain that SR2S efforts can lead to decreases in crashes and injuries and increases in the numbers of children walking and bicycling to school. These efforts did not begin with a strong commitment to evaluation, but their leaders have recognized the value of documenting the effects of their work over time.

In the following section, **Promising Practices – From Whom Can We Learn?** we describe a number of SR2S efforts in this country and abroad. All of these efforts appear to have made an impact in their communities, over time. Because SR2S efforts exist within communities – not laboratories — there are many factors which can affect the outcomes we desire: more active children, less traffic, cleaner air, and fewer injuries. In the future, there may be complex and expensive evaluation projects that offer specific details about cause and effect.

For now, however, any SR2S leaders can at least compare the situation in their own communities before they began their efforts, and after. They can also look at their own communities and consider other neighborhoods that have not tried to increase walking and bicycling to school — are there differences? These are fairly simple questions that do not require a great deal of data or a sophisticated evaluation design.

It is important for all SR2S project leaders to gather some of the data we have described in this section. We recognize that data can be difficult to gather. It can vary from month to month, and from season to season. Data gathered from children (e.g., "raise your hand if you walk to school regularly") can be inaccurate or, at least, incomplete. Nevertheless, as more people in more communities work on safe routes to school, everyone's data — though imperfect — will add to our overall understanding of what works. Simple information on evaluation is available from a variety of sources, including, *The Art of Appropriate Evaluation* and *Demonstrating Your Program's Worth: A Primer on Evaluation for Programs to Prevent Unintentional Injury,* as listed in ***Appendix B: Resources, Publications, and Organizations***.

Table 2

Specific Information Needed	Sources for Data
Current walking/biking levels among students	■ Students survey ■ Observation in front of school
Potential walking/biking level *(number of students within reasonable distance of school who do not currently walk/bike)*	■ School records of students' home addresses ■ Student survey of distance to school ■ parent survey of distance to school
Physical barriers to a safe or appealing walk/bike trip to school	■ Student survey with maps ■ Parent survey with maps ■ NHTSA Walkability/Bikeability checklists, filled out by surveying the neighborhood
Preference or attitudinal barriers to walking/biking to school	■ Student survey, Parent survey ■ Survey of support for waking/biking in local community (from parents, community groups, schools, government, and health professionals)
Pedestrian and bicyclist crashes and injuries	■ Local police department data ■ Local hospitals ■ National Center for Health Statistics ■ Public health department ■ Other advocacy groups
Traffic law infractions near school	■ Local police department data ■ Special police study ■ Observational study by advocates
Dangerous behavior near school (e.g., abductions, harassment of students, bullying)	■ Local police department data ■ Reports from school administrators
Physical activity level of students	■ Student survey
Walking/biking behavior in community	■ Parent survey; community survey
Air pollution caused by private car trips to/from school	■ Observations of parents or students regarding the smell of the air ■ Air pollution monitoring via mechanical device

4: Promising Practices – From Whom Can We Learn?

Because the Safe Routes to School (SR2S) movement is large, diverse, and changing every day, it is not possible to describe each of the different projects or activities. Earlier in this guide, we outlined the key factors that a community must have in place to provide comprehensive, effective, pleasant, and safe routes to school for its children:

- The community values active and safe transportation for children;
- Drivers are alert and careful;
- Pedestrians and cyclists are knowledgeable, careful and assertive; and
- Community design and facilities support walking and cycling.

In this section, we outline the efforts of a number of communities that have made important strides in achieving safe routes to school for their children. We offer examples that focus on a specific neighborhood, as well as examples of statewide efforts, and even one national project.

The projects that are spotlighted have been in operation for at least a few years. They have acquired funding and community buy-in so that they know their efforts will not be just a "flash in the pan." They have made some attempt at evaluating the work that they have done, although evaluation of Safe Routes to School efforts remains a significant challenge.

Each of the case studies provides:

- A description of the efforts made
- Effects that can be tied to the SR2S efforts
- Challenges
- Funding
- Lessons Learned
- Contact Information

Appendix A: Safe Routes To School Projects and Related Efforts, includes a larger, but less detailed, listing of a variety of SR2S efforts, organized by state and country. We encourage you to learn from all of these advocates and practitioners as you plan your own SR2S approach.

Arlington and Boston, Massachusetts

Arlington's Safe Routes to School (SR2S) program was started in 2000 by the National Park Service's Rivers and Trails Program in coordination with Walk Boston. Arlington (population 42,389) is an older suburb of Boston (population 589,141) that was developed before World War II. The project started with three schools in Arlington. During the first year, two schools in Boston were added. City and suburb are both densely populated, and neighborhoods are considered walkable. However, many lifestyles do not lend themselves to walking

to school, and schools in both cities actively discourage cycling. This SR2S project concentrated on community education, as well as parent and student encouragement efforts, believing these to be the greatest needs. Numerous strategies and activities encouraged thousands of parents and children to get involved, resulting in substantial gains in the number of Arlington children walking to school. By comparison, changes in Boston were much smaller.

Description of Efforts

- Sponsored Walk to School Days, a six-week Step into Spring walking contest, led neighborhood walks with classes, developed walking games and activities, conducted a "walking school bus" week, and gave children pedometers so they could measure how far they walked.
- Produced six SR2S newsletters that showcased crossing guards, students, and parents who regularly walked; newsletters included photographs and walking activities.
- Hired parents of students at participating schools as SR2S coordinators to work 10-15 hours per week.
- Emphasized the fun aspects of walking, avoiding messages that focused on negative concerns such as overweight children.
- Recruited parents at PTA meetings and through informal networks such as SR2S coordinators "talking up" the program daily with parents as they arrived at school with their children.
- Worked with town councils on ways to make routes to school safer.
- Promoted the use of public transit, in conjunction with walking, for middle school age children.

Effects

- In the two elementary schools in Arlington that participated in SR2S, the percentage of students walking to school increased from a baseline of 42 percent to a current rate of 56 percent. At the participating middle school in Arlington, walking to school increased from 19 percent to 24 percent.
- At these Arlington schools, more than 150 students now walk to school regularly, who did not walk before.

Challenges

- Busy parents and school staff are wary of "one more thing to do." Enthusiasm for the program does not necessarily translate into action when relying on volunteers; so funding for staff is essential.
- Boston schools did not show significant gains in students walking to school. Most students who lived within walking distance of school already walked before SR2S. The challenge in Boston is greater than in Arlington because most elementary schools in the city bus more than half of their students under a school-choice program. At one school, more than 60 percent of the students are bused, but a high percentage of students miss the bus and have to be driven to school.

Developing a culture of walking in a community requires a sustained effort.

- It is hard to motivate middle school students to walk to school if they do not already do so. At large middle schools (more than 1,000 students at the school in Arlington), many students live too far to walk.
- Students as well as school officials are preoccupied with a wide range of social and academic concerns, which makes it difficult to launch a SR2S program.

Funding

- $50,000 one-year grant from National Highway Traffic Safety Administration for the demonstration project.
- $4,500 grant from the National Park Service plus considerable in-kind services, such as staff and printing, to assess community interest.
- $100,000 from Congestion Mitigation and Air Quality Improvement (federal funds administered by the Massachusetts Highway Department).

Lessons Learned

The project focused on the fun aspect of families walking together. Elementary children were very enthusiastic, and parents who remembered walking to school when they were students were willing to try walking; though, developing a culture of walking in a community requires a sustained effort. Teachers are more willing to participate and integrate activities into their curriculum when given ready-made lesson plans.

It is more difficult to launch SR2S programs in school systems where a high percentage of students are bused out of their neighborhood. Middle school students are less interested in walk-to-school programs and activities than elementary students. Bicycle-to-school programs may be more popular with adolescents than walk-to-school programs.

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Developing a culture of walking in a community requires a sustained effort.

The Bronx, New York

More than 85 percent of children in the Bronx (population 1.3 million) walk to school. Unfortunately, in 1995-97, the Bronx had New York state's highest rate of pedestrian fatalities and injuries. Transportation Alternatives—an advocacy organization for pedestrians and bicyclists—launched the Bronx Safe Routes To School (SR2S) project in 1997 in an effort to maintain the high percentage of children walking to school but to make their travel safer. The collaborative process began with community leaders nominating a number of schools. From this list, project staff chose several schools at which to develop support among parents and decision-makers. They acquired funding and created environmental changes and traffic-calming measures that made walking routes safer. The project grew to 38 schools, with enrollments totaling 33,540 students. The 300,000 Bronx residents who use routes near the schools also have benefited by having safer streets.

Description of Efforts

- Surveyed parents' and children's walking routes and mapped the hazards.
- Used city and state crash data and Geographic Information System software. Intersections at which there were clusters of crashes involving child pedestrians were mapped and the findings presented in easy-to-read map format.
- Developed detailed traffic-calming plans for New York City Department of Transportation to design and build.
- Used competitive nominating process to create "buzz" about the program to ensure interest and participation by busy principals and Parent-Teacher Associations (PTAs).
- Built support for engineering and traffic-calming measures; used media and PTA outreach to raise awareness of child pedestrian safety issues and solutions.

Effects

- Won citywide commitment and funds to improve pedestrian safety around schools.
- Identified walking routes to school where traffic safety was a major concern and residents would welcome changes.
- New York City Department of Transportation improved signage, restriped crosswalks, and put in numerous speed humps in the neighborhoods around elementary schools.
- Improved public and political acceptance of effective but potentially controversial new traffic-calming engineering measures such as narrower roads, pedestrian refuge islands, leading pedestrian intervals, and neck downs.

Challenges

- High traffic volume at some intersections, with a general public resistance to slowing down the traffic.
- Developing a process in which New York City Department of Transportation engineers felt welcomed and needed, rather than criticized and on the defensive.
- Choosing a "champion" at a school. PTA may or may not be organized and involved enough to take on a program.
- Shifting the interest of parents and school personnel over long periods of time from determining the safety problem to getting it fixed.

To win the traffic-calming design changes that would make Bronx school routes safer, the project had to demonstrate political viability and soundness as a traffic safety program.

Funding

- Transportation Alternatives received $84,000 a year (1997-2001) from the governor's Traffic Safety Committee, which drew on federal TEA-21 402 funds, under sponsorship of the Office of the Bronx Borough President.
- New York City Department of Transportation launched a new School Safety Engineering Division in 2000 that began a $2.5 million project to improve safety around all 1,359 New York City elementary schools.

Lessons Learned

School-based traffic calming has reduced pedestrian deaths and injuries along school walking routes and improved the walking experience in cities across Europe. However, New York City agencies and elected officials only reluctantly embraced measures that they felt impinged on motorists. To win the traffic-calming design changes that would make Bronx school routes safer, the project had to demonstrate political viability and soundness as a traffic safety program. Staff encouraged parents, principals, police, the New York City Department of Transportation, and other local traffic engineering talent to participate in planning so that the new engineering measures would be appropriate and there would be broad support for funding the program. The competitive school nomination process won parents' and principals' attention and increased their sense of ownership and pride in the project.

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Chicago, Illinois

About 90 percent of Chicago's 422,000 public school children still walk to school, making the city a great example of the benefits of safe-walking efforts. The City of Chicago and its Police Department, through the department's Chicago Alternative Policing Strategy, launched Operation Safe Passage in 1997. The program grew from a coalition of police, educators, local citizens, and minister who were concerned about the dangers children faced when they walked through areas rife with gang violence and gunfire. In 1998, Operation Safe Passage evolved into the Walking School Bus (WSB), a citywide program supported by the mayor, school superintendents, and principals. With WSB, children walk to school under the watchful eyes of adults along safe streets that have been taken back from the gangs that previously ruled them.

With WSB, children walk to school under the watchful eyes of adults along safe streets that have been taken back from the gangs that previously ruled them.

Description of Efforts

- Police, parents, caregivers, and school safety officials monitored designated safe routes near participating schools.
- Uniformed and tactical police officers patroled the streets around these schools.
- Public housing officers visited schools in the morning when students arrive and in the afternoon when they depart for the day.
- Parent patrols, church volunteers, and residents supplemented the police patrols.
- Program coordinators – employees paid by the Police Department trained parent patrols.
- Adults who wanted to help, signed their names next to their address on street maps displayed at their local school. Clusters of households were then identified and linked so they could stay in contact with one another for the walking school bus that takes the chaperoned students to school safely.
- Police conducted background checks and fingerprint all volunteers.
- Volunteers wore vests that identified them as WSB "drivers" and carried walkie-talkies so they could communicate with each other and the police.
- Volunteer parent attendance officers went door to door to pick up children and make sure they arrive at school on time; other volunteers stand at designated stations.
- Staff worked with the Bureau of Transportation to improve crosswalk markings and other signage. Together, they also created maps that showed which street corners have crossing guards and which streets have police patrols, so that parents can pick the safest route to school.

Effects

- WSB is citywide and includes more than 3,000 volunteers.
- Every school in Chicago distributes the booklet "Safe Passage to and from Chicago Public Schools."
- The police presence sends a message that criminal activity around schools will not be tolerated.
- The City of Chicago has razed three buildings once occupied by rival gangs that had a reputation for sniper gunfire.
- Parents increase the "eyes on the street" and can quickly identify

problem intersections and criminal activity.

- Crime-ridden blocks are targeted for graffiti-removal, new lighting, sidewalk repair, and other crime-prevention measures.

Challenges

- Lack of government funding.
- Keeping volunteers motivated.
- Coordinating activities with other safety programs in the city.

Funding*

- Chicago Police Department's Alternative Policing Strategy funded the program coordinator position.
- The City of Chicago funded 10 youth coordinator positions.
- Contributions from local businesses, private agencies, and parents.

(*Actual funding amounts were unavailable.)

Complementary Effort

In 2001, the Chicago Department of Transportation contracted with the Chicagoland Bicycle Federation to manage the Safe Routes To School (SR2S) project. Chicago Department of Transportation's partners include the Chicago Public Schools, Illinois Secretary of State, Chicago Police Department, and Children's Memorial Hospital. The focus of the SR2S project is to increase the number of children who ride their bikes to school, which reduces traffic, encourages more physical activity, and increases overall health and safety.

Lessons Learned

The Chicago Walking School Bus project is now well-established. But when the project started, staff had trouble scheduling appointments with school principals and teachers to discuss the project and its benefits. The key to their success was having City and Police Department support. It legitimized the program and provided some leverage when staff wanted to schedule meetings at the schools. Through these meetings, project staff learned that they needed to lay out all project details and activities, and clearly state what they expected school officials, staff, and parent volunteers to do. The key was flexibility; every school and community posed different challenges and had different concerns. To identify the differences and inform the community about WSB, project staff attended PTA meetings, school

council meetings, school assemblies, and community meetings. To keep the parents who have signed up to be "drivers" motivated and involved, they receive small incentives throughout the year—baseball caps, sweatshirts, gift certificates—that are donated by local businesses and merchants.

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Florida

Florida has been involved in pedestrian and bicycle education since 1982, when the Florida Department of Transportation established its Pedestrian and Bicycle Program to serve as a clearinghouse for information and materials regarding pedestrian and bicycle safety. The Pedestrian and Bicycle Program also developed plans and programs to make it safe, comfortable, and convenient to take trips by walking and bicycling. A 1991 University of Florida study of children's transportation showed that only one in six children traveled to school by walking or bicycling; the rest arrived by school bus or private car. The University of Florida and Florida Department of Transportation collaborated in 1997 to develop a Safe Ways To School pilot project to reduce childhood injuries and fatalities by educating teachers, parents, and children; and to improve conditions that affect children walking and bicycling to and from school. The pilot traffic and bicycle safety education program offered a series of workshops with certificates awarded to elementary and middle school teachers, community volunteers, law enforcement officers, and recreation leaders. The project also involved research, media awareness campaigns, and safety education documents and guidelines.

Description of Efforts

- Conducted pilot project, Safe Ways To School, at 10 elementary schools from 1997 to 1999:
  - Conducted travel and attitudinal surveys to assess the various modes of transportation used by students to get to and from school and to identify concerns and barriers to walking/bicycling to school.
  - Combined traffic calming techniques with other school initiatives (e.g., Walking School Bus) and an education program to cultivate a safer environment for children.
  - Developed the Safe Ways To School Toolkit to help schools assess and improve hazardous conditions around schools and the surrounding neighborhoods. The toolkit includes a student travel survey, a school site design assessment, a neighborhood site assessment, parent and student attitudinal surveys, a video, a "how to" manual, clipboard, pen, and file folders, all in a schoolhouse box carrying case. The Safe Ways To School Toolkit has been distributed to more than 100 schools throughout Florida.
- Developed a 10-hour teacher workshop for elementary and middle school teachers of Physical Education and Health. Teachers learn to train students in age-appropriate bicycle and traffic safety skills, decision-making skills, balance development, awareness of surroundings, environmental conservation issues, independent mobility, and physical exercise and health.
- Conducted training on safe bicycling and walking:
  - Eight-hour Community Workshop regarding bicycle safety procedures and rules of the road appropriate for elementary school.
  - Adult Cycling Road I Courses are geared toward adult cyclists and combine classroom activities and discussion with on-road practice in the basics of bicycling.
  - Driver's Ed for Bicyclists prepares Driver's Education instructors to teach bicycle and pedestrian laws.

Effects

- A study at elementary schools in Duval County, Florida, which participated in the Florida Traffic and Bicycle Safety

Much of the program's success is attributed to the growth and evolution of the program, a resistance to stagnancy, and the on-going training of new teachers.

Education Program from 1996-98, showed:

- Helmet use increased from 19 percent in 1992 to 47 percent in 1997.
- Fatal crashes involving bicycles decreased 80 percent and bicycle-related injuries decreased 68 percent between 1996 and 1997.
- Helmet use increased 25 percent from 1997 to 1998 for children under age 13.
- The program operates in more than 55 percent of the school districts in Florida.
- A state children's bicycle helmet law was enacted in 1997.

Challenges

- No budget for promotion—information gets out mainly through word-of-mouth and newspaper coverage.
- No statewide curriculum requirements for Traffic Safety Education. Competing for time to incorporate SR2S training, activities, and curriculum into classroom lesson plans.
- Teachers leave the field, creating turnover; the need to train new teachers is ongoing.
- Maintenance and security of equipment trailers requires continuous attention.
- The large numbers of students per class.
- Numbers of parents who drive their children to school: parent concern about safety, stranger danger, or their work schedules.
- Daylight savings time extended into October, which means children walk to school or pick-up school bus in the dark.

Funding

- Started in 1982 with $108,528 from the United States Department of Transportation Section 402 through the Florida Department of Transportation.
- $161,000 annually from Florida Department of Transportation regular training budget on a three-year renewable contract with the University of Florida.
- In-kind support from nonprofit Bike Florida, which supplements training equipment and assistance, has warehouse space for curriculum storage, and provides mini-grants to school districts.
- Federal 402 funds provided annually to school districts to

purchase bikes, trailers, and other equipment. Funding amount fluctuates from $500,000 to $1 million per year.

Lessons Learned

The Florida Traffic and Bicycle Safety Education Program has benefited from longevity, continuing to grow since it began in 1982. The program has regularly used Section 402 funding to teach pedestrian and bicycle safety to hundreds of thousands of children across the state. Much of the program's success is attributed to the growth and evolution of the program, a resistance to stagnancy, and the on-going training of new teachers. After ten years of effort, enough support had been gathered to establish a statewide program. In 2002, the state legislature passed the "Safe Paths" bill as a directive to Florida Department of Transportation to create an annual funding source to support additional pedestrian and bicycle safety education projects.

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Great Britain

In the early 1990s, awareness was growing that auto traffic had increased throughout the country, and that cars on residential streets frequently exceeded the speed limit. Research showed

that the United Kingdom (UK) had among the worst child pedestrian casualty records in Europe, and at the same time one of the highest rates of restriction on children's outdoor play and independent travel. Injury was an obvious impact on children's health, but their loss of independence and increasing overweight status were also of concern.

Public agencies and private organizations responded to the situation. Sustrans, a civil engineering advocacy group, began promoting Safe Routes To School in 1995. Drawing on successful efforts in Denmark, Sustrans began with 10 schools and four local authorities. To reduce car speeds, the UK's Department of Transport, Local Government and the Regions implemented traffic-calming schemes in rural and urban areas. The Children's Play Council and Transport 2000 initiated the Home Zones effort, which pulls together health, safety, and community-building goals. All of these efforts, while not officially coordinated, have contributed to safer travel for pedestrians and cyclists, increased numbers of children walking and bicycling to school, and improved quality of life in neighborhoods.

Description of Efforts

Sustrans: Safe Routes To School

- Offered telephone and e-mail helplines to demonstration sites and hosts a Web site available to all.
- Conducted research on Safe Routes To School.
- Organized conferences.
- Produced curricula for teachers, general information for the public, and guides for traveling to and from school.
- Helped projects plan and implement infrastructure improvements such as bikeways, walkways, better signals, traffic-calming, and bicycle parking.

Effects

- Local governments' interest in developing safe School Travel Plans rose from 38 percent in 1999 to 50 percent in 2001.
- Sixty-four percent of Local Transport Plans established targets for travel mode changes in 2001, up from 28 percent in a previous survey.
- The national downward trend of children walking to school (down 11-13 percent from 1985 to 1997) seems to be reversing. In 2000, walkers increased by two percent from the previous year.

Sample Effects at Demonstration and Pilot Sites

- Horndean Community School, a secondary school, improved pedestrian crossings, provided bicycle lanes and parking, and implemented traffic-calming. Walking to school increased from 39 percent in 1996 to 41 percent in 1998, cycling from two percent to seven percent.
- Admiral Lord Nelson, a new secondary school, promoted walking and cycling to school when it opened. In 1998, 31 percent of students walked to the school, 25 percent cycled.
- Sandringham School, a secondary school, provided a safety zone with traffic-calming, bicycle lanes and parking, a new bus shelter and bus priority. Pupils who walked increased from 35 percent in 1996 to 47 percent in 1998, cyclists from two percent to five percent.
- Hafren School, a primary school, provided covered cycle parking and a network of bikeways, encouraged curriculum activities, and increased cycling from one percent to 14 percent in four years.
- Rosendale School, a primary school, changed its policy on cycling from cautious tolerance to active promotion, installed parking for bicycles, created a

The national downward trend of children walking to school seems to be reversing. In 2000, the percentage of walkers increased.

20-mph zone, and provided bicycle training. The number of cycling students, most accompanied by parents, doubled from two percent in 2000 to four percent in 2002.

Challenges

- Lack of coordination among cycling and walking efforts.
- Lack of funding for infrastructure improvements in the early days.
- Lack of support for travel plans, monitoring, and evaluation.
- Reluctance of schools to take on extra projects.
- Parents' fears for the safety of their children and their perception that cycling is unsafe.
- Habitual car use and perception that cars are the safest, best way to travel.

Funding

- Sustrans SR2S budget is approximately $307,000* a year.
- National government allocated $76 million* in the last four years for cycling and walking projects, including Safe Routes To School.
- In 2001, national government provided $14 million* over three years to fund school travel plans in 100 communities.
- Local transport authorities allocated between $230,000* and $768,000* a year for SR2S efforts in four communities involved in SR2S since the demonstration phase.

Complementary Efforts

Home Zones

- Advocacy groups have been campaigning for public support of Home Zones since 1996. In home zones, residential streets have been redesigned using the Dutch concept of "woonerf" or "yard" to promote interaction among neighbors.
- In 1999, legal changes allowed streets to be used for purposes other than moving vehicles. Several pilot sites were recognized.
- Local residents helped plan and implement projects, resulting in community-building.
- National government allocated $43.5 million* in 2001 to develop and construct more Home Zones.
- Fierce competition for funding resulted in awards to 61 different communities.

Traffic-Calming

- Experience with more than 50 traffic-calming schemes report that lower speeds reduce injuries.
- Strategies include narrowing roads, marking roads, coloring surfaces and traffic islands, and

*All monetary amounts are given in U.S. Dollars.

placing physical deflection measures and signs on gateways.

- In a project at Ayres Road, slower speeds and less vehicle noise led to greater numbers of villagers saying that they walked to shops daily — up from 25 percent to 40 percent in one year.
- Looking at village traffic-calming projects from 1992 to 1997, the project leaders found that when auto speeds dropped two to seven miles per hour, injury crashes were reduced by 47 percent.
- Installation of village traffic-calming greatly reduced injuries to children in the communities involved:
  - Child pedestrian injuries dropped by 40 percent
  - Child pedestrians killed or seriously injured dropped by 77 percent
  - Child cyclist injuries dropped by 51 percent and
  - Child cyclists killed or seriously injured dropped by 49 percent
- Funding from local transportation agencies varied widely.

Lessons Learned

Great Britain's national efforts – public and private—although not originally coordinated, complement each other and have led to significant reduction in injuries, changes in how parents and children travel, and better facilities for bicycling and walking. Advocates say that coordination is improving but needs to be better. Communities and local governments have become more interested in making changes so that children can walk and bike to school more safely. Using information from established projects such as "woonerfs" in the Netherlands and Safe Routes To School in Denmark was helpful. Funding from various sources has been required to implement educational efforts and make engineering changes.

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Marin County, California

Marin County, California (population 247,000), a few miles north of San Francisco, is primarily suburban with a number of small, older communities and a lot of rural areas and open spaces. Many people walk and bike in these communities and have a strong commitment to environmental protection. There is also increasing concern over growing traffic congestion. A recent study showed that 21 percent of the morning traffic consists of adults driving children to school. To lessen the aggravation of the morning commute, the Marin County Bicycle Coalition introduced the concept of Safe Routes To School (SR2S) and its benefits of reduced traffic, cleaner air, and healthier children. In August 2000, the Marin County Bicycle Coalition received a grant from NHTSA for a SR2S demonstration project in Marin County. That initial project has grown to include 21 schools with nine more organizing projects.

Description of Efforts

- Encouraged walking and biking to school through classroom education and activities, contests and events (Walk/Bike To School Days, Frequent Rider Miles contest, "walking school buses," bike trains), mapping of routes, and community involvement.
- Participating schools received a toolkit, guidance, forms, newsletters, and other promotional materials.
- Qualified instructors — including law enforcement personnel — conducted safety trainings for second- and fourth-graders and a bicycle safety rodeo.
- Each community developed an SR2S Improvement Plan in cooperation with Public Works staff, law enforcement, and an engineering consultant.

Effects

- Parents make more of an effort to get their children up in time to walk and bike to school.
- Tremendous cooperation from the school staff in getting the safety training in the classroom.
- As shown in the chart below, pilot school's transportation modes shifted (total enrollment of 1,744 students in Fall 2000, 1,756 in Spring 2001, and 10,000 in Spring 2002).

Transportation Mode	Percent Before (Fall 2000)	Percent After (Fall 2001)	Percent After (Spring 2002)
Walk	14%	17%	23%
Bike	7	12	15
Bus	6	3	4
Carpool	11	15	21
Drive Alone	62	53	38

- Marin Congestion Management Agency designated 30 percent of Transportation Enhancement funding toward a countywide SR2S program.

Sample Effects at Demonstration/Pilot Sites

- Greater police presence at all pilot schools.

- Stoplight at dangerous crossing changed to give pedestrians more time.
- Sidewalks near local elementary schools improved.
- Middle school students began walking and biking as a direct result of the contests and continued walking and biking after the contests ended.
- Fairfax, an older city on the western fringe of densely populated areas, has new bike lanes and funding to fill in sidewalks where there are gaps.
- Mill Valley and Fairfax police now use radar trailers to control vehicle speed on main arterials near schools.

Challenges

- Teacher and staff reluctance to take on additional work.
- Convincing school administrators that SR2S is worthwhile.
- Working with Public Works staff not trained in bicycle and pedestrian issues.
- Recruiting and retaining crossing guards.
- Finding volunteers to work to involve the middle schools.

Funding

- First-year funding totaled $120,000. Funding sources included:
  - NHTSA demonstration project ($50,000)
  - California Office of Traffic and Safety, Section 402 funding ($15,000)
  - California Kids Plate program ($25,000)
  - Marin Community Foundation ($25,000)
  - Additional foundation support and funds provided by private donations

Lessons Learned

The major lesson learned from the Marin SR2S effort is that the project team must be persistent and stay organized. Many of the school administrators and teachers were reluctant to take on more work, so parents went directly to the school's administration with their pitch. They said they believed that children who walk or bike to school are more alert and tend to do well in school, and that reducing traffic around a school can make the neighbors happy and improve relationships. Then they asked for an SR2S project.

Work with schools must be customized for the community and its needs. Each school's "team leader" or "champion" starts the planning process for the program at the start of the school year with a form schools fill out to select the safety training classes they want and to list the incentives they will use. Each school then has its own plan and timeline—including classroom activities and special walking and biking events—to follow throughout the year.

Marin SR2S also found that getting press coverage was a great way to promote the project and keep the community and public officials informed. Organizers said that it is also important to keep public officials informed and feeling like they are heroes, because it gives them more reasons to help and fund the project.

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Portland, Oregon

The Portland Department of Transportation, serving this northwestern city of 538,000, takes a neighborhood-based approach to traffic safety for adults and children. Its established traffic-calming program bases its efforts on the well-documented effectiveness of slowing vehicle speeds to prevent injury. Since the 1980s, the Portland Department of Transportation has been involved in collaboration with community groups and in targeted activities related to school area safety with department initiatives such as the Elementary School Safety Program. The department promotes transportation choices that reduce single-occupant auto use. Presently, the Portland Department of Transportation is involved in community planning with Safe Routes To School (SR2S) task forces at several schools, while continuing to respond to specific requests for traffic-calming from the entire city.

Description of Efforts

- Portland Department of Transportation maintains ongoing traffic-calming efforts, with an emphasis on providing speed humps. The largest number of calls to Portland Department of Transportation are from residents concerned about the number of cars and how fast they drive on neighborhood streets. The Neighborhood Traffic Safety Plan, a comprehensive planning effort, emphasizes traffic-calming around schools and parks.
- From 1994-97, 12 schools were selected for interventions by the Elementary School Safety Program. Installation of speed humps was the most common engineering change, with a few pedestrian refuges and slow points, and one traffic diverter to send traffic in a clockwise direction around a school.
- Bicycle Transportation Alliance has offered a "Safe Routes for Kids" classroom and bicycle instruction program since 1998. More than 10,000 children have been in the program in Portland and throughout Oregon.
- School Beacon Program, with 76 schools participating, puts flashing yellow lights remote-controlled by Portland Department of Transportation above school zone signs.
- Portland Police Bureau School Police Division trains elementary school Safety Coordinators and student safety patrol crossing guards how to patrol school crosswalks safely. Emphasis is on crosswalk safety and safe driver behavior during peak times of drop-off and pick-up activities.
- Portland Department of Transportation educational programs have reached more than 3,200 children in Portland during the past two years, teaching them safe ways to walk and bicycle. Programs include:
  - "Portland Kids on the Move" is a three-day workshop for third-grade students, parents, and teachers covering safe ways to maneuver, traffic hazards as pedestrians, and safe ways to ride a bicycle on the street. Educational package includes kindergarten to fifth-grade transportation curriculum with more in-depth study of traffic safety and transportation options, a "Slow Down" banner for the school, and a supply of bumper stickers.
  - Traffic Safety Town is a giant tarp used for an indoor gym activity. It is designed with bike lanes, sidewalks and intersections, and may be used in conjunction with the curriculum or as a stand-alone activity.

Two tarps have been taken to every elementary school in Portland at least once.

- "Play It Safe," an interactive, outdoor education program, is provided in partnership with Portland Parks and Recreation, Portland Police Bureau, and Portland Fire Bureau to elementary school-age children during the summer. "Play It Safe" focuses on pedestrian and bicycle safety. The bicycle safety training is geared toward youth ages seven to 13 who already know how to ride a bicycle. The parks, fire, and pedestrian safety sessions are for all ages.

Effects

- In the 12 Elementary School Safety Program schools, traffic speeds were reduced on the roads with speed humps, usually by several miles per hour. However, the speeds usually were not below the 20-mph school speed limit.
- A 1993-96 study showed relatively consistent reduction in vehicle speed when beacons flashed. School principals, parents, and police officers reported improved traffic safety after installation of the flashing beacons.
- School safety education and planning efforts led to a variety of results at different schools. For example: students stopped crossing at the middle of one street and started using the signalized intersection; a pedestrian refuge island was constructed on a major street; and the "walk" period at a school crossing was increased.
- Bicycle Transportation Alliance evaluations showed that children increased their safety knowledge by more than 40 percent and bicycled to school more frequently. During the 2000-01 school year, only 4.4 percent of students in the participating Portland schools rode to school before the Bicycle Transportation Alliance program, while more than 11 percent rode during the program's final days.

Challenges

- Changes in department priorities resulted in the elimination of the Elementary School Safety Program.
- The state passed SR2S legislation in 2001 (Oregon House Bill 3721), but did not appropriate funds or provide strong direction.
- Motor vehicle use—measured by daily vehicle miles traveled (VMT)—has increased steadily in the city; 70 percent of trips to work are in single-occupant vehicles. Carbon monoxide and carbon dioxide emissions have increased.
- Data collection has never been a priority. Currently, it is estimated

that 18-20 percent of Portland's children walk or bike to school. However, staff believe that there is a trend toward more parents driving their children to school.

- Need to educate school representatives about city transportation services, policies, and procedures relevant to school traffic safety projects, so they know the options available to them.

Funding

- Centers for Disease Control and Prevention grant for $20,000 for beginning SR2S task forces at six schools in 2001.
- Portland allocated more than $1.3 million for school safety over the three-year period 1999-2002:
  - Bicycle safety education in coordination with Bicycle Transportation Alliance: $590,000
  - School beacons: $100,000
  - Portland Department of Transportation educational programs: $515,000
  - Engineering changes (crosswalks, signs, traffic circulation, etc.): $105,000

Lessons Learned

Portland's experience over the past 20 years demonstrates the difficulty of increasing walking and bicycling by schoolchildren in the face of continuing increases in automobile use. However, within the overall national picture of declining walking and bicycling, Portland remains a city where bicycling and walking are perceived as more desirable than elsewhere. Strong political champions in Portland have supported bicycling and walking as making the city more livable. Portland has committed significant resources over several years to implement a very well-documented strategy to reduce injury: slowing vehicle speeds with extensive use of speed humps and warning lights.

Portland has committed significant resources over several years to implement a very well-documented strategy to reduce injury: slowing vehicle speeds with extensive use of speed bumps and warning lights.

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Santa Ana, California

In the Southern California city of Santa Ana (population 320,000), the impetus for promoting safety and walkability for children came from the realization that the pedestrian death rate for the city was, in 1997, the second highest of any large California city. While approximately 50 percent of fifth- and sixth-grade children walk to school regularly, a majority of residents responding to a survey stated that it was unsafe for children to walk in their neighborhood. Children aged five to nine represented only nine percent of Santa Ana's population in 1997, but they were victims in 21 percent of the pedestrian injuries. The California Office of Traffic Safety funded the Santa Ana Pedestrian Safety Project for three years. After this project period, Santa Ana took over the operation of the project, which has spread to 20 schools and has produced many tangible results. Unlike many other projects, the Santa Ana Pedestrian Safety Project established specific measurable goals and objectives, and collected data from the beginning. All of the objectives were achieved.

Description of Efforts

- Established Citywide Task Force with representatives from law enforcement, schools, traffic engineering and community development, elected officials, community-based organizations, and concerned residents. Meeting topics included presentations on pedestrian safety issues and services, discussions of unsafe situations, and updates on the Santa Ana Pedestrian Safety Project accomplishments.
- Developed a comprehensive educational toolkit and community outreach program in English and Spanish; toolkit includes:
  - 20-minute pedestrian safety video with discussion guide.
  - 30-minute pedestrian safety presentation with slides.
  - Neighborhood Safety Survey — for residents to identify unsafe walking conditions.
  - Pedestrian Safety Solutions Guidebook.
- Participated in Walk to School Day in 2001 (approximately 20 schools).
- Provided small grants to community-based organizations to purchase materials and conduct outreach and education events promoting pedestrian safety.
- Promoted walking and safety through a Family Literacy Program that includes publications about walking to school.
- Collected data from Neighborhood Perception Surveys, Walkability Checklists, Geographic Information System mapping, and police summaries to develop a community profile of pedestrian injuries.
- Developed pedestrian safety art exhibits and murals through collaboration with the Multicultural After School Arts Program and Operation Clean Slate.
- Applied through the Public Works Department, for pedestrian safety improvement funding; projects included in-pavement lighted crosswalks, new signals, and sidewalk improvements.
- Police Department made strong commitment to child pedestrian safety, conducting such pedestrian safety enforcement actions as ticketing drivers who did not yield, and working directly with children and their parents to develop children's safe walking skills.
- City worked with schools to develop, update, and assess Suggested Routes to Schools maps for all elementary schools.

Unlike many other projects, the Santa Ana Pedestrian Safety Project established specific measurable goals and objectives, and collected data from the beginning.

Key Desired Results and Objectives

- To reduce the number of pedestrians under 15 years old who are killed and injured in traffic collisions by 15 percent.
- To prepare a community profile of the pedestrian injury problem.
- To develop multilingual, pedestrian-injury prevention materials.
- To establish a community-wide Pedestrian Safety Task Force that meets regularly.

Effects

- Santa Ana's representative in the State Assembly sponsored a statewide "Safe Routes to School" funding bill, and supported other pedestrian safety legislation.
- City assumed ownership and leadership for ongoing pedestrian safety program after grant period ended in 2001.
- City and school district established a partnership.
- Schools and school district have taken a more proactive role in addressing pedestrian safety for students by encouraging "walking school buses," using more innovative signage, and improving school drop-off practices. Additional crossing guards have been provided to schools.
- Pedestrian injuries for children under age 15 declined from 82 in 1997 to 48 in 2000.
- Extensive media coverage during the first year of the project raised awareness and garnered support and involvement by community residents, professionals, and elected and appointed officials.

Challenges

- Time constraints and competing priorities of key stakeholders, and personnel changes within collaborating agencies. It was tough to maintain participants' commitment, momentum, and level of activity.
- Working with the media to promote the issues and portray the statistics accurately. Publicity helped bring attention to the issue, but negative publicity sometimes interfered with collaborative efforts.

Funding

- Santa Ana Pedestrian Safety Project operated for three years with the following funding:
  - California Office of Traffic Safety Section 402: $350,000.
  - In-kind support and provision of services from Orange County Health Care Agency and City of Santa Ana estimated at $100,000 a year.
  - City of Santa Ana allocated $715,200 for pedestrian safety

improvements from city budget, and applied for and received:

- ♦ $713,400 from state Safe Routes to School funding (AB 1475)
- ♦ $251,200 through Hazard Elimination Safety Program
- ♦ $150,000 through Federal Empowerment Zone fund
- ♦ $384,000 from California Pedestrian Safety Program funds

- Office of Traffic Safety second-round funding: one grant for Pedestrian Safety Task Force ($77,000) and a second for a crosswalk study and public information campaign ($142,000).

Lessons Learned

Santa Ana's approach to pedestrian safety enhancement is different from other safe routes to school efforts in that data collection and evaluation were included as important project activities from the beginning. The focus on injury reduction poses difficulty in evaluation. Working with different agencies to collect data, Santa Ana was able to document an overall reduction in injuries, but found that evaluation was difficult because the numbers of injuries in any local area are usually modest. The data collection experience highlighted the need for proxy measures (e.g., conflicts between the needs of pedestrians and the rights of motor vehicle drivers) and exposure data (e.g., number of pedestrians) to be able to measure effects of pedestrian safety programs. The pedestrian safety efforts included a very broad cross-section of the community, which the organizers report was essential to the program's success. They learned that a comprehensive approach was necessary, as opposed to focusing on just one part of the problem such as jaywalking education, ticketing parents for illegal parking, or simply teaching children about pedestrian safety. In such a multicultural community, it was important to develop materials and outreach efforts in languages other than English—in this case, the second language needed was Spanish. The Santa Ana Pedestrian Safety Project was also prepared to develop materials in Vietnamese, although they discovered that the need was not as great as originally thought.

Unlike many other projects, the Santa Ana Pedestrian Safety Project established specific measurable goals and objectives, and collected data from the beginning.

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Unlike many other projects, the Santa Ana Pedestrian Safety Project established specific measurable goals and objectives, and collected data from the beginning.

Toronto, Ontario

In Toronto (population 2.5 million) there is major concern over poor air quality caused mainly by motor vehicle emissions. Another concern is the health problems of inactive children.

Although 68 percent of Canadian children live within a 30-minute walk to school, only 36 percent of the children walk. In an attempt to alleviate both health concerns, Greenest City, an environmental advocacy organization, began the Active and Safe Routes to School (SR2S) project in 1996 with three pilot schools. It was a comprehensive program, with materials, education, and activities. The project took root and grew. Active and SR2S activities result from major collaboration among Greenest City, five traffic engineers, 10 different police divisions, and 25 public health nurses. Experiences and successes at these schools have led to Active and SR2S project development in 150 other schools. The project now serves the entire Province of Ontario, and has assisted in the start-up of SR2S projects elsewhere in Canada.

Description of Efforts

- Provided a comprehensive package of education and encouragement materials: flyers, brochures, certificates, reports, and surveys.
- Offered curriculum information to teachers, including Blazing Trails, a publication useful in mapping safer routes.
- Designed events to encourage walking: Walking School Bus (WSB), out of which came a new toolkit for beginning a WSB in a neighborhood; Walking/Wheeling Wednesdays at schools, and "Kilometer Club" (described on page 55) for kids who want to be active during the school day, but cannot walk to school.
- Trans-Canada Walking Challenge encouraged children to keep track of the miles they walk, add them up, and see how far across Canada they could get. A poster shows points of interest along the way.
- Neighborhood Walkabouts surveyed the area around schools to find out if they were safe for children to walk.
- "No Idling" campaign educated drivers about the air pollution they cause while the engine idles as they wait to pick up schoolchildren, and lets them know that idling like that is banned in Toronto.

Effects

- Walking/Wheeling Wednesdays at several schools demonstrated

Program	Year	Participation	Greenhouse Reduction eCO_2 in tonnes
Walking School Bus	1999	The number of families participating in all aspects of the program has approximately doubled each year. This steadily increasing participation has resulted in distance traveled by car, which is calculated to result in greenhouse gas reduction in the amounts indicated.	3.38
	2000		5.22
	2001		7.44
Walking Wednesday	1999		1.43
	2000		5.15
	2001		16.67
No Idling	1999		4.47
	2000		12.92
	2001		40.02
Walk To School Day	1999		3.05
	2000		3.86
	2001		2.95

Physical Education teachers had noticed a year-by-year decline in the number of children who were fit enough to participate in the cross-country track team for a spring event competing with other schools. The teachers started the "Kilometer Club" in 2001, with students walking and running laps in the schoolyard and walking to school. By the spring of 2001, more children qualified for the cross-country challenge.

significant shifts in travel mode: some schools reported empty parking lots on these days. The average across schools is 55 percent student walkers on Walking Wednesdays.

- Total person kilometers walked (1997-2001) IWALK and Walking Wednesday = 1,074,891 kilometers. This is equal to 144 individual trips walking across Canada from St. John's Newfoundland to Vancouver, British Columbia.
- Support from local officials has grown. Police departments got involved because they were concerned that they would have to spend too many hours managing traffic congestion.
- Forty-four Toronto schools completed neighborhood walkabouts, resulting in some type of traffic safety change being made at each school.
- Each year, from 1998-2001, the reduction of emissions of eCO_2 (greenhouse gas) in Toronto because of the walking to school program equaled 73 metric tonnes. The adjacent chart estimates the contribution of specific program components toward a desired reduction in greenhouse gas in different years.

Sample Effects at Demonstration/Pilot Sites

- Maurice Cody and John Wanless Public Schools: 1998 evaluation showed a 10 percent increase over 1996 in students walking to school on a regular basis. Both schools have 60 percent walkers on Walking Wednesdays.
- E.T. Crowle Public School: Physical Education teachers had noticed a year-by-year decline in the number of children (grades four through eight) who were fit enough to participate in the cross-country track team for a spring event competing with other schools. The teachers started the "Kilometer Club" in 2001, with students walking and running laps in the schoolyard and walking to school. By the spring of 2001, more children qualified for the cross-country challenge.
- Maurice Cody Public School: Students challenged the City Council and the Mayor to walk or bike to work at City Hall on "Bike Day." Some city officials took the challenge seriously, including one who walked 3.2 miles to work that day.
- Mary Shadd Public School: Walkabout survey resulted in a bus stop being moved, installation of a well-signed crosswalk, and a crossing guard assigned for before and after school.

Challenges

- Finding funding for all of the efforts.
- Attitude of North Americans toward their cars. There is no political will to make the changes necessary to encourage other means of transportation.
- Schools are very busy. They need a champion who will carry the cause, probably a parent, with a supportive principal and teachers.

Funding

- Started with approximately $22,000* per year from the Toronto Atmospheric Fund.
- Funding sources included city, private and public foundations, and national transportation department.
- Active and Safe Routes to School leveraged funding to acquire more than $320,000* per year in in-kind support from various partners.
- Province-wide effort cost approximately $128,000* per year.
- $285,000* awarded recently from Ontario Trillium Foundation for three-year program support.

Lessons Learned

Greenest City's strategy has been to pilot activities in Toronto schools, then adapt them and disseminate throughout the province. Recognizing that schools have busy schedules, they advise that it takes a full year to implement an Active and Safe Routes to School project. Greenest City has recruited partners from health, law enforcement and community government, and leveraged funding into significant in-kind support. Greenest City responded to the enthusiasm of schoolchildren for active travel by developing fun events like the Kilometer Club and Cross-Canada Walking Challenge. Greenest City emphasized that both funding and community volunteer effort for Active and Safe Routes to School projects are essential.

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*All monetary amounts are given in U.S. Dollars.

5. Supporting Safe Routes To School – Where Do We Go From Here?

As a local, regional, or statewide decision-maker, you may be approached in many different ways by people who are interested in the Safe Routes To School (SR2S) concept. How can you help them? Following are questions you might be asked, along with suggested responses. These are only suggestions – which you may expand and adapt to fit your own situation.

Safe Routes To School – What does it mean and do we need to be involved?

This is the straightforward information your questioner needs: Since the 1950s fewer children have been walking or bicycling to school. Many people believe that this is a negative change. SR2S projects started in Denmark during the 1970s, and spread throughout the developed world. The common goal of all SR2S efforts is to increase the numbers of children who walk and bike safely to school, because:

- Walking and bicycling are healthy for children.
- Communities benefit from less traffic congestion and pollution.

The **Preface** explains why walking and bicycling are desirable activities, and lists the national goals from the Centers for Disease Control and Prevention and the United States Department of Transportation. **Chapter One: Safe Routes To School – Why?** expands on why the SR2S movement started, and the benefits.

Is it really a good idea to encourage children to walk or bicycle to school? Wouldn't they be safer in a car or on a school bus?

Reply that statistics show that children are generally safe from traffic injury inside a school bus. However,

motor vehicle crashes are the leading cause of death for school-age children. And, whether in a car or bus, they do not get the physical activity benefits of walking or bicycling. Nor do they learn to feel independent and move confidently about their communities.

On the other hand, studies show that children who walk and bicycle are alert and ready to learn when they get to school, and more easily achieve Centers for Disease Control and Prevention's healthy goal of one hour of physical activity each day, a habit they would do well to keep. Those who continue to be active throughout their lives are at lower risk of various chronic illnesses.[22]

Communities benefit when more people walk and bicycle, because there is less traffic and cleaner air.

See **Chapter One: Safe Routes To School (SR2S) – Why?**, especially page 4, for more benefits.

We have to make a presentation to our school board about Safe Routes To School. Do you have information or resources we can use?

See **Chapter Two: Safe Routes To School (SR2S) – What Does That Mean?** for descriptions of SR2S activities that relate to education, encouragement, engineering and enforcement.

See **Chapter Four: Promising Practices – From Whom Can We Learn?** for case studies of many different communities that have started programs to make their children's routes to school safer, how they did it and their results.

See **Appendix A: Safe Routes To School Projects and Related Efforts** for contact information on a variety of SR2S efforts, and **Appendix B: Resources, Publications, and Organizations** for additional SR2S resource information.

SR2S sounds great! How do we get started?

Encourage your activists to gather information about their community. They will have to be able to document the need for SR2S projects and to evaluate their efforts. **Chapter Three: Evaluation and Outcomes – How Do You Measure Success?** lists key indicators of success for SR2S projects, and tells where to get data (see Table 1 on page 14 and Table 2 on page 17).

Appendix D: Steps to Start an SR2S Project covers what is essential for starting an SR2S project. Useful toolkits have been developed by a variety of SR2S projects; they are listed on page 107.

We have heard about the Four Es – but don't know which one we should concentrate on. Is it better

to educate people about SR2S, or to encourage changes? Or should we build (engineer) safe routes to school, or work on enforcement?

Ask the community group what problems they have identified. What specific barriers keep their children from walking or bicycling safely to school?

Once the barriers are identified (see **Appendix D: Steps to Start a SR2S Project**, page 107), they can decide – perhaps with your help – how to overcome them. For example, for streets without sidewalks, an engineering solution is desirable. If the infrastructure is in place, but people just are not in the habit of walking, then encouragement will help. If people are unaware of the benefits of walking, education is a good approach. If motorists are not obeying the laws and yielding to children in the crosswalks, or are speeding in school zones, then address the problem with enforcement.

Chapter Two: Safe Routes To School (SR2S) – What Does That Mean? offers examples of how five different SR2S projects utilized one of the Four Es, as a part of their overall effort.

Desirable as it is to start with one or two activities, eventually it will probably be necessary to engage most or all of the Four Es. For the majority of children in most communities, the shift to walking and bicycling safely to school is a big change.

We have heard that your department has some money available for SR2S projects. What do we have to do to get funding for our project?

If your department has money available for SR2S, you will need clear guidelines for choosing which projects to fund. First, consider how far you want to spread the money: over neighborhoods, towns, counties or regions? Do you want to fund geographical and/or demographic diversity? For example, large and small communities or ethnic mixes? Or simply the efforts most likely to be effective in raising numbers?

Consider evaluating projects, or project proposals, based on Table 1 on page 14. Be sure that each project has a way to measure change and plans to measure changes in at least some of the areas described.

We know that your department doesn't have any money for SR2S projects, but do you know where we could get some funding?

SR2S projects have been funded by initiatives at the state, local or national level, and by private foundations. In **Chapter Four: Promising Practices – From Whom Can We Learn?**, each case study project's funding sources are described. The

following sources of federal money have been used for Safe Routes To School efforts:

- Congestion Mitigation and Air Quality Improvement Program (CMAQ), Section 1110
- Surface Transportation Program (STP), Section 1108
- State and Community Highway Safety Grants, Section 402

See **Appendix E: National Transportation Law and Funding** for more information on funding available under the federal Transportation Equity Act (TEA-21).

We have done a lot of education of parents and children, and they are walking and driving much more carefully. But it still isn't safe or pleasant to walk in our area. What should we do next?

First, review with your community group whether they accurately assessed the barriers to safe and pleasant walking. Perhaps they thought they needed to educate walkers and cyclists, when the bigger problem was unsafe speeds by motorists. In that case, they need to work for better enforcement.

However, there are times when the policies of a school district, city, state or region work against safe routes to school. For example, the state may have a policy that requires a new school to be built if it is expensive to renovate an older one. Or the state might require a very large campus area for a school. These policies work against keeping schools in older, more densely built, walkable neighborhoods. By sharing the information in this resource guide, you may be able to help the group advocate for changes to such a policy.

See pages 64 and 75 in **Appendix A: Safe Routes To School (SR2S) Projects and Related Efforts** for policy activities carried out by activists in Oakland, California, and in Texas. Also see pages 65-66 for descriptions of the projects that resulted from a legislative change in California that allocated a portion of construction money to Safe Routes To School projects.

22 Dwyer T. Sallis JF, Blizzard L, et al. (2001) *Relation of academic performance to physical activity and fitness in children.* Pediatric Exercise Science, 13: 225-237.

Appendix A:
Safe Routes To School (SR2S) Projects and Related Efforts

Safe Routes To School (SR2S) Projects and Related Efforts

Local Communities and Statewide
(Alphabetically by State) (as of December 2002)

Arizona

Safest Routes to School - City of Phoenix

www.ci.phoenix.az.us

Brandon Forrey,
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- Has completed year-long School Safety Task Force effort which has resulted in $500,000 funding from City Council plus new positions
- Recommendations include Education, Engineering and Enforcement
- Safest Route to School Walking plans will be developed cooperatively between City staff and school officials and parents – identify safest roads for children to use when walking or biking
- School Crossing Safety Audit Procedure has specific items to check to determine safety of school crossings and crosswalks. Points are assigned to crossings – high points indicate need for improvements or changes

Prescott Alternative Transportation

www.prescottbikeped.org

Sue Knaup, Executive Director

Prescott Alternative Transportation,
P.O. Box 2122, Prescott, AZ 86302

sue@prescottbikeped.org

Tel: 928.708.0911

- Program covers all 4Es: engineering, education, enforcement, encouragement; and funding
- The Morris grant is kick-start funding and is being used to leverage local, state, federal and foundation funding
- PAT is a strong advocacy organization with a mission that Safe Routes fits beautifully
- Use a lot of organizational resources for SR2S program
- As of 2/02 started preliminary stages of starting SR2S teams in three schools, with possibly 2 others joining soon
- Prescott City Council passed SR2S proclamation in 2/02
- Applying for additional funds from various foundations to expand program

California

Bicycle-Friendly Berkeley Coalition

www.bfbc.org

Pam Webster, Project Director
Safe Routes To School Planning Grantee
P.O. Box 13357, Berkeley, CA 94712

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Fax: 510.540.1057

PW: 510.848.0305

- Works with individual schools to identify unsafe conditions and then contracts with Caltrans to correct dangerous conditions. Received $450K in 2000 to make SR2S to Willard Middle School and Le Conte Elementary Pilot programs in 12 Elementary schools and 3 middle schools
- Completed Bicycle and Pedestrian Safety Task Force Report in March 2000; Results: Berkeley had highest rates of pedestrian and bicycle injuries compared to 44 other CA cities of similar size; local children age 10-17 suffer twice as many pedestrian injuries than any other age group
- SR2S committees organized at each school; members include school staff, parents, healthcare workers and school neighbors
- Six "E"s: Events; Encouragement; Engineering; Education; Enforcements; Escorts
- DHS SR2S Planning Grantee

Safe Walks Home Program Oakland Pedestrian Safety Project

www.oaklandnet.com

Tom Van Demark, Coordinator
1 Frank Ogawa Plaza, 3rd Floor, Office of the City Manager, Oakland, CA 94612

tvandemark@oaklandnet.com

Tel: 510.238.7049
Fax: 510.238.6129

- Initially started as a city funded project in 1995; efforts focus on Education, Engineering, and Enforcement
- Held cities first WTSD in 1998 with 40 schools participating; in 2001, all 74 elementary schools in the district participated. Events supported by the City Council members and staff, School Board and District, principals, teachers, and volunteers
- Other activities include Safe Moves Town trainings for elementary students (and seniors); Mock Vehicle/Pedestrian Traffic-Collisions (joint project with OPSP, OFD, and drama depts. of every high school); and Pedestrian Stings with OPD
- Uses the Safe Communities model for organizing and outreach
- Council staff and community members working with seven elementary schools to upgrade signage and safety engineering and to introduce each school's SR2S
- Developing the "20 Year Pedestrian Master Plan" which will "institutionalize pedestrian safety" by focusing on the inclusion of pedestrian safety solutions in ongoing city street engineering

- OPSP received two year OTS grant; offered $220,000 in mini-grants (with a nine month grant cycle) for traffic-related injury prevention projects. Three grant tiers: $0-5000, $5,000-10,000 and $10,000-30,000, with the under-$5000 tier geared towards non-501(c)3 organizations for materials only (helmets, safety seats, educational materials, etc).

City of Palo Alto; Department of Planning & Community Environment

www.city.palo-alto.ca.us

Amanda Jones, Project Director

250 Hamilton, Palo Alto, CA 94301

Amanda_jones@cityofpaloalto.org

Tel: 650.329.2568

Fax: 650.617.3108

- Main problems identified are congestion around schools, lack of sidewalks and stop lights
- Goal is to identify how people are currently getting around and the barriers that keep people from walking
- Working with Cal-Trans to develop facilities that enhance walking and safety and install stop lights
- Implementing "Way-To-Go" program—a comprehensive program for city promote driving less (including school trip reductions) and to increase walking, car pooling
- Only one school in the city has completed mapping a SR2S (route goes through the local park instead of streets)
- Received California Office of Traffic Safety (OTS) Traffic Study Grant for the "Share our Streets, As If" project (an "As If" project refers to, "as if it was your child walking, biking, etc.") to work with law enforcement to increase citations and signage. Also, collecting crash and injury data on an on-going basis to determine whether an increase in the number of children walking combined with a decrease in driving will lead to an increase in the number of injuries.
- Conducts the Pedestrian Safety Program (in conjunction with Safe Moves) in schools with teachers, students, and parents
- DHS SR2S Planning Grantee; Area of focus for grant purposes is two elementary schools in the Ventura/ So. El Camino Real neighborhood and connecting corridor.

Caltrans Safe Routes To School Construction Program

www.dot.ca.gov/hg/LocalPrograms/

Caltrans District Offices staff

CA Grantees–Statewide

Caltrans Headquarters: 1120 N Street, Sacramento, CA 95814

See web-site

- See web site for a list of funded grantees; 1st & 2nd Cycles
- Funded by federal transportation safety funds
- Began in 1999 with the passage and signing of Assembly Bill 1475 (Soto-D); effort spearheaded by James Corless at Surface Transportation Policy Project in San Francisco
- Two-year demonstration period; approx. $20 million worth of SR2S projects for the first cycle of the program; up to $500,000 per project with a 90 percent federal reimbursement ratio

- The SR2S program is a construction program. It is intended to improve and enhance the safety of pedestrian and bicycle facilities and related infrastructure
- On October 2, 2001, Governor Davis signed State Bill 10 (SB 10/ Soto), extending the Safe Routes to School program for three more years. The program sunsets on January 1, 2005, unless a future statute deletes or extends this date

Safe Routes To School Initiative Planning Grantees

www.dhs.ca.gov/routes2school/

Barb Alberson
611 No. 7th Street, Suite C, Sacramento, CA 95814-0208

balberso@dhs.ca.gov

Tel: 916.323.3486
Fax: 916.323.3682

- California Dept. of Health Services (CA DHS) funded projects with $25,000 each
- 2/3 of grantees either have collected community data or will be collecting data starting with Walk To School Day 2001 to identify problem areas and pedestrian safety issues that need to be addressed and/or corrected. 2001-2002 Grantees:
  - Bicycle-Friendly Berkeley Coalition
  - California Bicycle Coalition Sacramento
  - Child Abuse Prevention Council of Shasta County (Anderson Partnership for Healthy Children)
  - City of Palo Alto; Dept. of Planning & Community Environment
  - Mid-City SR2S, Center for Healthier Communities, Children's Hospital San Diego
  - Town of Fairfax
  - San Francisco Educational Services, Inc.
  - Santa Barbara Bicycle Coalition, City of Santa Barbara
  - Tulare County Health & Human Services
  - Vista Community Clinic

Safe Routes To School, Marin

www.saferoutestoschools.org

Wendi Kallins,
Project Coordinator
P.O. Box 201,
Forrest Knolls, CA 94933
wendi@marinbike.org

Debbie Hubsmith, Director

debbie@marinbike.org

Tel: 415.488.4101
Fax: 415.488.0926
DH: 415.456.3469

- Pilot program, started in August 2000; Marin County Bicycle Coalition received $50,000 funding from NHTSA to develop national model (promoted by Congressman Oberstar)
- Promotes walking/biking to school through classroom education/ activities, contests/events (i.e., W/BTSDs, Frequent Rider Miles contest, walking school buses, bike trains), mapping, and community involvement

- Each school receives guidance, forms, newsletters and other promotional materials
- Formed citywide task forces to study engineering solutions for safety issues on school routes; hired Transportation Engineer.
- 1st year: nine pilot schools in four different geographic locations; 2nd year: 20 schools; conducted community Train-The-Trainer programs;
- Developed SR2S Tool-kit
- By end of the pilot program the schools experienced a 50 percent increase in the number of children walking and biking and a 29 percent decrease in the number of children arriving alone in a car
- DHS SR2S Planning Grantee contractor for Town of Fairfax

Mid-City Safe Routes To School, Center for Healthier Communities, Children's Hospital San Diego

www.chsd.org

Cheri Fidler, Director

cfidler@chsd.org

3020 Children's Way, MC 5073, San Diego, CA 92123

Anna Zacker, Program Coordinator

azacker@chsd.org

CF: 858.495.7748
AZ: 858.576.1700, ext. 4796
Fax: 858.966.7563

- Conducted environmental assessments of areas around two schools and developed recommendations for improvements
- Conducting ongoing pedestrian education program (building off of WTSD) at three schools
- Received approval from the Public Safety and Neighborhood Services Committee of the City Council to start a city-wide pedestrian advisory group
- Multidisciplinary coalition of health professionals, police, city planners/traffic engineers, Council members, schools, CBOs, parents and other community members
- Focus on driver behavior
- Integrated approach of education, environmental assessment and engineering, and enforcement
- DHS SR2S Planning Grantee

Santa Ana Pedestrian Safety Project

www.ci.santa-ana.ca.us

Kelly Broberg
Orange County Health Care Agency; Chronic Disease & Injury Prevention
12 Civic Center Plaza, Suite 127, Santa Ana, CA 92701

kbroberg@hca.co.orange.ca.us

Tel: 714.834.3059
Fax: 714.834.3492

- Two-year project coordinated by UC Irvine's Center for Health Policy and Research in conjunction with the Orange County Health Care Agency Chronic Disease and Injury Prevention Program. Funded by California Office of Traffic Safety from 1998-2001 to mobilize community action to reduce pedestrian injuries and deaths in the city of Santa Ana

- 2002 project ended and the task force was transitioned over to the City of Santa Ana's Department of Public Works (DPW). The DPW will continue to work with schools on SR2S and will be responsible for coordinating and promoting Walk Day
- Pedestrian safety has been improved by engineering measures (slight decrease in the number of injuries for children 0-15 years old and no fatalities since the program began in 1998)
- Promotes walking and safety through a Family Literacy Program that includes books focused on walking to school
- Representatives from law enforcement, schools, traffic engineering, and community development, locally elected officials, Santa Ana community-based organizations, and concerned Santa Ana residents are combining efforts to improve pedestrian safety through a city-wide Task Force
- Developed a comprehensive multilingual educational toolkit and community outreach program to reduce Santa Ana's high number of pedestrian motor-vehicle crashes

Safe Moves

www.safemoves.org

Pat Hines
15500 Erwin Street, Suite 1121,
Van Nuys, CA 91411

info@safemoves.org

Tel: 818.908.5341
Fax: 818.908.5337
PH: 818.762.5535

- SAFE MOVES is a non-profit organization, dedicated to saving lives through education. SAFE MOVES provides programs throughout the United States
- Educates children, parents and the community on pedestrian, bicycle, motor vehicle, train, bus and recreational safety
- Conducts student and parent workshops, traffic simulation rodeos, community outreach campaigns, data collection and evaluation
- Provides information on the California Bicycle Helmet Law, how to choose the right helmet, and bicycle safety
- Programs are designed to be interactive, fun and effective
- SAFE MOVES was selected as the winner of the 1996 United States Secretary of Transportation Award for Child Transportation Safety and the 1996 California Office of Traffic Safety Award

Colorado

Bicycle & Pedestrian Traffic Safety Education: Home to School Safe Travel for Children

www.dot.state.co.us

Gay Page, Program Manager,
Education Director, & Instructor,
CO Department of Transportation
4201 E. Arkansas Ave, Room 212,
Denver, CO 80222

Gay.Page@dot.state.co.us

Tel: 303.757.9982
Fax: 303.757.9727

- CDOT Bicycle/Pedestrian program offers a two day traffic safety education course that provides train-

ers with tools and skills necessary to teach children how to become predictable, competent and confident in traffic by focusing on developing their decision making skills

- The course features classroom training, hands-on field work, problem solving exercises, peer training, role playing, lectures, videos, and demonstrations
- Upon completion of the training, each participant (trainer) will be able to create a traffic safety program that best suits their needs
- Each trainer receives a training binder and curriculum materials
- The traffic safety education curriculum is designed for grades K – 5
- The goal of the program is to place one copy of the curriculum in every elementary school in Colorado and to provide the instructor training for successful implementation

Florida

Safe Ways To School

http://www11.myflorida.com/Safety/Ped_Bike/Ped_Bike.htm

Linda Crider, Project Director
University of Florida
P.O. Box 115706,
Gainesville, FL 32611-5706

LBCrider@aol.com

Dwight Kingsbury,
FL Pedestrian and Bicycle Coordinator
Florida Department of Transportation Safety Office
605 Suwannee Street,
Tallahassee, FL 32399

dwight.kingsbury@dot.state.fl.us

Tel: 352.392.8192
DK: 850.487.1200
Fax: 850.922.2935

- Safe Ways to School operated out of the University of Florida since 1997
- Florida Dept. of Transportation, Traffic and Bicycle Safety Education Program is the funder
- Home-to-School study in 1992 found one out of six children walking to school in FL
- Have not done another survey; feeling is there is majority opinion in FL against kids walking to school
- Each participating school has a School Traffic Safety Team; attends to Education, Engineering, Encouragement
- Have produced tool kits for school and distributed 100. Do not know how they have been used
- Have a training program for schools to train & certify crossing guards (the only one we know of in the country)

Georgia

Kids Walk

www.peds.org

Sally Flocks, President & CEO
Michael Orta, Director of Community Education
PEDS
100 Edgewood Ave, Suite 540,
Atlanta, GA 30303

info@peds.org

education@peds.org

Tel: 404.873.5513
Fax: 404.873.5667

- Project sponsored by PEDS advocacy group (Pedestrians Educating Drivers on Safety, Inc)
- Kids Walk project began in 1999 when CDC wanted to pilot test KidsWalk-to-School booklet
- Operates with 10-12 schools in central Atlanta; unable to work much with suburban counties
- Provides pedestrian safety training to children, teachers, parents, and volunteers
- Organizes "walking school buses"
- Evaluates walking conditions and empowers communities to advocate successfully for SR2S
- Has created a toolkit for school "champions"
- Anecdotal information about program popularity and success: air quality, parent attitudes, driver behavior, increased walking. No hard data yet
- Have grant money from CMAQ. Had money from Robert Wood Johnson Foundation, in collaboration with CDC, but project had inflexible research constraints

Illinois

Safe Passage/The Walking School Bus

http://www.cityofchicago.org/cp/AboutCAPS/HowCAPSWorks/Walking Schoolbus.html

Vance Henry, Director
Kathie Carothers, School Safety Coordinator
Chicago Police Department
Chicago School District
CAPS Implementation Office
DePaul Center,
333 South State St., Room 1500, Chicago, IL 60604
Tel: 312.744.CAPS
Fax: 312.746.6000

- City of Chicago Police Department and School District
- Began in 1997 with a few elementary schools (K-8) in State Street Corridor
- Uniformed and tactical officers, parent patrols, church volunteers, and local residents patrol area schools
- Mapping projects and safety education with individual schools
- Walking School Buses organized mostly in housing projects; Parent Attendance Officers go door-to-door to get children to school and to arrive on time
- Project is considered a success because safety education has been institutionalized in individual schools

Safe Routes to School Chicagoland Bicycle Federation

www.biketraffic.org

Heather Convey
Research Coordinator/Education Assistant
650 S. Clark St., #300,
Chicago, IL 60605

heather@biketraffic.org

Tel: 312.427.3325
Fax: 312.427.4907

- Primary focus of program is to increase the number of children who ride their bikes to school, thereby increasing the health and safety of all residents by reducing traffic and encouraging everyone to become more active

- Program began in 2001. Target of four schools in 2001-2002 school year
- Budget: $135,000
- Four phases to program; 3Es approach
- For detailed info see 2002 STPP SR2S Inventory (http://www.transact.org/Reports/sr2002/programs/il1.htm)

Walkers Win

www.cnt.org

Artemio Perez
Center for Neighborhood Technology
2125 W North Ave.,
Chicago IL 60647

artemio@cnt.org

Tel: 773.278.4800
Fax: 773.278.3840

- Walkers Win! is a pedestrian advocacy campaign that promotes health and social cohesion by improving the pedestrian atmosphere around schools on the northwest side of Chicago
- Part of the program is to assist schools develop their SR2S initiatives, with limited resources
- Schools are located in dense, low income, minority communities
- Working with the Chicago Area Transportation Study to develop a workshop that will directly address the issue of access to schools and bring together representatives of the health, transportation, engineering, education, advocacy and policy communities
- Transportation summits information is at www.cnt.org/2030

Massachusetts

Walking in Arlington

http://walking_in_arlington.tripod.com/safe.htmm

107 George St.,
Arlington, MA 02476

refdesk@world.std.com

- Public Advocacy group, working on SR2S with Walk Boston
- Two elementary and one middle school intensively working on Walk to School
- Increased walking rate in 2000 – 2001 from approximately 40 percent to up to 90 percent

Safe Routes To School Walk Boston

www.walkboston.org

Dorothea Hass, Program Manager
Steve Golden, National Park Service
94 Perry Street,
Brookline, MA 02446
dhass@shore.net

Tel: 617.232.0104
Fax: 617.451.6475

- Oberstar NHTSA grant for one year (2000-2001)
- Funded by the Massachusetts Cultural Council, NHTSA, Mass Highway Dept, and National Park Service Rivers and Trails Program
- Program includes WTS Day, Safety training for kids, classroom materials and working with Town councils on ways to make routes to school safer
- Would like to expand from Arlington schools into two Boston schools in 2001-02
- Not much data collected on overall effectiveness

Maine

Kids and Transportation Program

www.gpcog.org/trnsprttn/k_&_t/k_&_t.htm

Erik Hermann, Program Coordinator
233 Oxford St.,
Portland, ME 04101

ehermann@gpcog.eddmaine.org

Tel: 207.774.9891

- Greater Portland Council of Governments, began in 1994, funded by Maine DOT
- Aim is to teach kids about transportation alternatives to autos, with hope for net decrease in auto-related congestion and air pollution in the future
- Original concept came from regional planning staff
- Educational materials, including map to guide kids in getting around
- Teacher courses and school presentations
- Evaluation is in number of contacts/presentations

Maryland

Child Pedestrian Injury Project

www.jhsph.edu

Susan DeFrancesco, JD, MPH,
Project Coordinator
Johns Hopkins Center for Injury Research and Policy, School of Public Health
624 N. Broadway, Baltimore, MD 21205-1996
sdefranc@jhsph.edu

Tel: 410.502.8671
Fax: 410.614.2797

- Research project begun in 2000, working in four Baltimore city school neighborhoods
- Collected data on pedestrian areas, conducted safety audit and counted pedestrians
- Has information on state pilot study on SR2S in planning stages (for additional info on state project visit http://www.transact.org/Reports/sr2002/programs/il1.htm)

Minnesota

Minnesota Bicycle and Pedestrian Alliance

www.bikeped.org

Paul Charmosta, Executive Director
210 E. 10th St., St. Paul, MN 55101

mnbpa@aol.com

Tel: 651.290.0405

- Represents the interests of bicyclists and pedestrians on a variety of issues, infrastructure, facilities and programs related to alternative transportation
- Currently in partnership with the Capital City Traffic Calming Alliance, Transit for Livable Communities to coordinate a demonstration project in St. Paul designed to reduce car usage and encourage walking, biking, carpools, and transit use
- Building on the Neighborhood Pace Car Program and SR2S models (started 02/02; 12 month timeline)

Missouri

Safe Routes to School Task Force
Bureau of Chronic Disease Control

www.dhss.state.mo.us

Department of Health and Senior Services
Diana Hawkins, M.Ed., C.H.E.S.
Manager, Cardiovascular Health Program
920 Wildwood, P.O. Box 570,
Jefferson City, MO 65102

hawkid@dhss.state.mo.us

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Fax: 573.522.2898
DH: 573.522.2860

- Board meeting held in July 2002 resulted in quite a few members signing up for the newly established Safe Routes to School Task Force
- Hope to bring those folks together in the next few weeks to brainstorm regarding goals, objectives, strategies and additional partners
- More information to follow

New Mexico

Pedestrian Safety Program

www.dgr.unm.edu/tsb/tsbprograms/pedsafe.html

Transportation Programs Division
Isabel Lopez-Encinias
New Mexico Highway and Transportation Department
P.O. Box 1149, 604 W. San Mateo,
Santa Fe, NM 87504-1149
Isabel.Lopez-Encinias@nmshtd.stat.nm.us

Tel: 505.827.0427

- Funded by the New Mexico Traffic Safety Bureau
- New Mexico has the highest pedestrian fatality rate in the country (6.6 per 100,000), nearly twice the national rate. (In 1994, pedestrian deaths accounted for 16% of all motor vehicle-related deaths in the state. The pedestrian death rate in rural areas and among American Indians is extraordinarily high.)
- Initiative to promote pedestrian safety throughout the state seeks to focus attention on the extent and source of the problem, to identify possible interventions, to rally community support, and to marshal resources to effect change
- Initiative is based on strengthening viable coalitions and alliances among public and private sector organizations at the local, state and federal levels
- TSB has embraced a broad spectrum approach involving: education/behavior modification, motor vehicle modification, and environmental/engineering changes

New York

Safe Routes to School: The Bronx

www.saferoutestoschool.org

Transportation Alternatives
John Kaehny, Executive Director
115 W. 30th St. Ste. 1207,
New York, NY 10001

exec@transalt.org

Tel: 212.629.8080
Fax: 212.629.8334

Urbitran Associates
Ellen Cavanaugh, Campaign Coordinator
71 West 23rd Street, 11th Floor,
New York, NY 10010

ecavanagu@urbitran.com

Tel: 212.366.6200

Fax: 212.366.6214

- Traffic calming and pedestrian safety engineering program
- Project began in 1997,with support from the office of the Bronx Borough President and the Governor's Traffic Safety Committee
- Collected surveys on traffic hazards; worked with NYC DOT to change signage, signal timing
- Has completed traffic calming plans for 38 schools; partial installations at all
- NYC DOT will take over program in October 2001 and expand citywide, via RBA Group and Urbitran consultants ($2.5 million contract)

Oregon

Portland Kids On The Move

www.trans.ci.portland.or.us

Shannon Parker, Education Contact
Office of Transportation
1120 SW Fifth, Room 800,
Portland, OR 97204

Shannon.Parker@pdxtrans.org

Tel: 503.823.5391

- Bureau of Transportation System Management, Traffic Calming Program, Portland Office of Transportation. Funds were allocated in 1994 to begin an Elementary School Safety program
- Educational materials and events for schools; engineering approaches including signs, beacons; and enforcement against speeding
- Identifies most common problems as high traffic volume and excessive speed
- Reports from schools indicate that after engineering changes were made, speeds decreased in the targeted area

Pennsylvania

Pennsylvania Walk To School Trails Program

www.RailTrails.org/PA/Active_Pages/Programs/main.asp

Tom Sexton, Director
105 Locust Street,
Harrisburg, PA 17101

tsexton@transact.org

Tel: 717.238.1717
Fax: 717.238.7566

- Government Agency supported; Rails-To-Trails Conservancy's Pennsylvania Field Office
- Rails-to-Trails Conservancy -PA (and NPS) are meeting with the PA. Dept. of Health to talk about developing a SRTS program. Rails-To-Trails Conservancy inventoried all elementary schools near trails (a few blocks away) as a first step. Assessed what's out there: 100 open trails in PA, about 20 identified within two blocks of school
- Looking to partner with four to five local health organizations to plan program to increase rail trail use in walking and biking to school. Will follow Centers for Disease Control's program guide on KidsWalk to School

Safe Routes To School

www.ceo.indiana.pa.us

Leann C. Cheney, Senior Land Use Planner

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Jerry Richardson, Deputy Director

jrichard@ceo.co.indiana.pa.us

Indiana County Office of Planning & Development
801 Water Street, Indiana, PA 15701
Tel: 724.465.3870
Fax: 724.465.3150

- Pilot program— Started this August 2001
- In early stages of "getting it off the ground"— initial stages of program implementation
- Funded by the County Office of Planning & Development, in cooperation with Livable Indiana Neighborhood Connections (LINC) a grassroots organization
- Focus is on three area schools (an elementary, middle, and high school) with plans to create a pedestrian convergence zone to increase walking and bicycling, improve safety, and implement changes to the physical infrastructure within the SR2S zone

Texas

Safe Routes To School TX BICYCLE COALITION

www.biketexas.org

www.saferoutestexas.org

Robin Stallings, Executive Director

mail@biketexas.org

Laura King, Program Director

laura@biketexas.org

P.O. Box 1121,
Austin, TX 78767
Tel: 512.476.RIDE

- TX BICYCLE COALITION GETS $3 MILLION FOR 'SAFE ROUTES'
- According to the March 2nd Bike-League News, "Texas Bicycle Coalition (TBC) supporters were stunned by the recent announcement that the Texas Department of Transportation will allocate $3 million to develop the TBC-sponsored Safe Routes to Schools program
- The announcement was made by State Rep. Roberto Gutierrez (D-McAllen), who sponsored the Matthew Brown Act that included the creation of Safe Routes to School
- Gutierrez said he had been assured by both Gov. Rick Perry and TxDOT Executive Director Michael W. Behrens that TxDOT intends to come up with the funds to get the program started

WALK Austin

www.io.com/~snm/walk/index.html

Steve Rogers or Marilyn Rogers
P.O. Box 773,
Austin, TX 78713

snm@io.com

Tel: 512.451.9335

- Advocacy group
- WALK Austin was founded in 1993 to organize citizen support for increased use and safety of pedestrian facilities

Virginia

Arlington Co. Safe Routes to School

www.co.arlington.va.us

Arlington Co Public Affairs Division
2100 Clarendon Blvd., Suite 310,
Arlington, VA 22201
Tel: 703.228.3969

- Arlington Co. Public Schools & County Government funded
- Each parent receives a walking route map and a bus route map when they enroll their child in an Arlington Public School
- Families are encouraged to review the map and to chart a safe course to and from school, and to have a discussion of safety issues such as looking both ways, staying on well-lit pathways and "what to do" when encountering dangers

Wisconsin

Teaching Safe Bicycling Program

Wisconsin Dept. of Transportation

www.dot.state.wi.us

JoAnne PruittThunder, Safety Program Manager, Wisconsin DOT Division of Transportation, Investment Management

joanne.pruittthunder@dot.state.wi.us

Peter Flucke, WEBIKE President

webike@aol.com

4802 Sheboygan Avenue, Room 951
P.O. Box 7913, Madison, WI 53707
Tel: 608.267.3154
Fax: 608.267.0441
PF: 920.497.3196

- According to a recent WisDOT statewide survey, nearly 12 percent of all trips were being completed by bicycling and walking
- WisDOT has recently approved a state bicycle plan and is currently working on a state pedestrian plan.
- All 14 metropolitan areas in Wisconsin have their own bicycle and pedestrian plans
- The 12th Annual Teaching Safe Bicycling (TSB) Workshops are coming up in April. These workshops provide community instructors information about child bicycling safety
- WisDOT's Bureau of Planning has been working on the creation of long-range plans to address the needs of bicyclists and pedestrians
- WisDOT has produced a Statewide Pedestrian Policy Plan; a 20 year plan that will consider pedestrian needs and concerns and provide recommendations to address them. WisDOT devotes two staff positions to bicycle and pedestrian planning and safety

National SR2S Efforts

National SAFE KIDS Campaign SAFE KIDS Walk This Way

www.safekids.org

Angela Mickalide, Program Director
1301 Pennsylvania Ave. NW,
Suite 1000,
Washington, DC 20004
Tel: 202.662.0600
Fax: 202.393.2072

- National SAFE KIDS Campaign was launched in 1988 to address the problem of unintentional injuries to children
- Has 300 local and state coalitions in all 50 states
- Has been involved in school route safety/child ped safety since 2000
- Conducted a study (Fall 2000), which showed that two-thirds of drivers speed in school zones across the country
- SAFE KIDS involves partners FedEx, 3M, and LL Bean
- Nationwide pedestrian safety initiative, SAFE KIDS Walk This Way. On International Walk to School Day, October 2, 2001, volunteers will join SAFE KIDS coalitions to help assess the walkability of areas surrounding schools, teach kids safe pedestrian behavior and motivate communities to create safer walking environments

Keep Kids Alive Drive25®

www.keepkidsalive.com

Tom Everson, Founder
P.O. Box 45563, Omaha, NE 68145

kkad25@yahoo.com

Tel: 402.334.1391

(Phone and Fax)

- Begun in 1998, privately organized campaign to slow drivers down
- Many communities throughout the US use the signs
- Currently beginning an effort in Phoenix that will be evaluated to observe before and 12-month after behavior of drivers

KidsWalk-to-School Program

http://www.cdc.gov/nccdphp/dnpa/kidswalk.htm

Jessica Shisler, MPH, Health Education Specialist
Division of Nutrition and Physical Activity
Center for Disease Control & Prevention
4770 Buford Highway NE,
Mail Stop K-46,
Atlanta, GA 30341-3717

jshisler@cdc.gov

Tel: 770.488.5692
Fax: 770.488.5473

- Published Kids Walk to School in 2000
- Primary interest in physical activity promotion
- Looking for information on states that are working on Safe Routes to School Legislation similar to California's SR2S legislation

- Developing slide shows and curriculum for champions to present Walk-to-School concepts to their community

International SR2S Efforts

Canada

Go For Green

www.goforgreen.ca/

Nathalie Racine, Active and Safe Routes to School Coordinator

nathalie.racine2@sympatico.ca

5480 Canoteck Road, Unit #16,
Gloucester, Ontario
CANADA K1J9H6
Tel: 418.877.6350
Fax: 418.877.1363

- National environmental activist group took on SR2S, building on Greenest City's Toronto experience in 1998. Most funding from Health Canada
- Primary focus is physical activity; provides materials to groups throughout the country

Ottawalk – The Association of Pedestrians and Walkers of Ottawa and Area

www.ottawalk.org

Chris Bradshaw

chris@ottawalk.org

George Duimovich

gduimovich@ottawalk.org

Box 52036, 41York Street
Ottawa, Ontario
CANADA K1N1B4
Tel: 613.230.4566
Fax: 613.230.8820

- Advocacy group

Active and Safe Routes to School

www.greenestcity.org

Jacky Kennedy

asrts@greenestcity.org

244 Gerrard Street, Main Floor
Toronto, Ontario
M5A 2G2
CANADA
Tel: 416.488.7263
Fax: 416.922.7636

- Greenest City—Advocacy group. Began project in 1996
- Primary goal is reducing greenhouse gas emissions; Ontario air quality is very poor. Has partnership with environmental organizations such as World Wildlife Fund
- Has organized schools to promote walking and bicycling; has curriculum for teachers, Blazing Trails publication for mapping, No Idling Campaign for drivers
- Greenest City has been refining their data collection methods and has done several evaluations. They rely heavily on community partners to collect data
- Recent evaluation work indicated the "No Idling at School" project avoided the release of over 200 tonnes of carbon dioxide (CO2) in one year
- 30 percent of schools who participate in IWALK continue with ASRTS activities throughout the year.
- Participation in regular Walking Wednesday s averages to 55 percent per school.

Way to Go

www.waytogo.icbc.bc.ca/

Bernadette Kowey

waytogo@telus.net

Vancouver, BC
CANADA
Tel: 604.732.1511
Fax: 604.733.0711
Toll-free: 877.325.3636

- Began in 1997; has major focus on safety; funded by the Insurance Corporation of British Columbia (public insurance agency)
- Published toolkit called Way to Go

Denmark

Safe Routes to School

Troels Andersen, Project Manager

TA@Odense.dk

Traffic-og Vejkontoret Odense
Slot Indgang
N Norregarade 36
DK – 5000 Odense
DENMARK
Tel: 45.66.14.88.14
tone 2751

- Birthplace of Safe Routes to School movement
- Approximately thirty years ago, Denmark had the highest rate of child mortality due to road accidents in Western Europe. This promoted investment into the Safe Routes to School program
- In Odense, SR2S program started in early 1980's
- Overall, the total number of accidents has been reduced 82 percent as speeds on twelve roads have been decreased.
- Results as presented to VeloCity conference in 2001 are that child pedestrian accidents have dropped 24 percent from 1994 to 1999
- Odense is now working on gathering data on numbers of children walking/cycling; rates of children walking/cycling in Odense varies from 24 percent to 73 percent at different schools

England

Safe Routes to School

www.saferoutestoschool.org.uk

Diana Nicoll

schools@sustrans.org.uk

35 King Street, Bristol BS1 4DZ,
ENGLAND
Tel: 0117.929.0888

- Established demonstration program in 1995; began working with 10 schools
- Results include:
  - increase in cycling in all 10 pilot schools (9% of children in all York schools now cycle to school)
  - reductions in car use (12 percent and 17 percent in Hampshire and Colchester schools)
  - reductions in child road casualties (32 percent in York)
- Efforts include practical measures (e.g. engineering, routes, enforcement) and educational measures (e.g. lesson plans and policy)

Home Zone effort

www.homezonesnews.org.uk

Sally Keeble, Minister of Home Zones

homezones@ncb.org.uk

National Children's Bureau
Children's Play Council
8 Wakely Street, London EC1V 7QE
ENGLAND
Tel: 020.7843.6016

- Homezone and "village traffic calming" efforts in England have been under way since the early 1990's. Periodic newsletter tracks and reports on activities
- A homezone is a street or area designed primarily to meet the interests of pedestrians and cyclists rather than motorists, opening up the street for social use
- Nine pilot projects are underway and are being monitored by the government; reports so far focus on building community feeling and perceptions of safety
- Traffic injury rates were studied in 56 village traffic calming schemes. Auto speeds were reduced and injury rates went down 25 percent (15 percent reduction in slight injuries and 52 percent reduction in severe/killed injuries) as reported in Traffic Advisory Leaflet 11/00
- Project ended in March 2002

Jersey Pedestrian Association

user.itl.net/~wordcraf/main.html

Gerraint Jennings, Chairperson

Geraint_j@psilink.co.je

Geraint@itl.net

102 Rouge Bouoillon, St. Helyi Jerri
JE2 3ZU ENGLAND
Tel: 44.15343.280778

- Advocacy group—NGO
- The Association was founded to raise awareness of the difficulties, problems and dangers of walking in Jersey and to campaign for better facilities and better policies for pedestrians
- In June 1998, the Jersey Pedestrians Association put forward a plan for pedestrian priority for the center of St. Helier entitled "St. Helier Footstreets"
- The plan is designed to fulfill the stated aim of Public Services' transport policy document of "recognized, safe routes" and "pedestrian priority areas" and provide input into the revision process of the policy document

New Zealand

SafeKids

www.safekids.org.nz

Rebecca Williams, Safe Routes to School, National Project Manager

rwilliams@ahsl.co.nz

162 Blockhouse Bay Road, P.O. Box 19 544, Avondale, Auckland, 7
NEW ZEALAND
Tel: 64. 9.8201193
Fax: 64. 9.8201191

- Sponsored by Starship Children's Hospital with additional funding from the Land Transport Safety Authority; began efforts in 1994 after publication of a study by Ian Roberts – showed high pedestrian injury and death rates for children in Auckland region
- Explored models around the world and selected Australia approach
- Projects (programmes) use the 3 E approach (environmental, education, enforcement)
- 1995 had three pilot projects and now have projects in about 36 communities

Appendix B: Resources, Publications and Organizations

PUBLICATIONS

Active & Safe Routes To School Resource Manual

This community action guide is for organizations and schools that want to encourage active transportation to and from school, thus reducing children's reliance on the automobile for short trips. It suggests ways to conceive, create, and implement their own program that suits their unique circumstances. Included are sample letters, surveys, forms, activity booklets, and an extensive list of international resources.

Contact: Active and Safe Routes to School, Greenest City
244 Gerrard Street East, Toronto, Ontario M5A 2G2 Canada
Tel: (416) 488-7263
Fax: (416) 488-2296
E-mail: asrts@greenestcity.org
Web site: www.greenestcity.org

The Art of Appropriate Evaluation – A Guide for Highway Safety Program Managers

This guide (64 pages), provides an overview of the steps that are involved in program evaluation. It is designed for state or local traffic safety project directors who need to understand what type of evaluation is reasonable for the type of program you are implementing and what you can do to maximize the success of a program evaluation. It provides suggestions on how to find and work with an evaluation consultant. A glossary of terms and concepts commonly used by evaluators is also included.

Contact: Behavioral Research Division, NHTSA, NTI-131
400 Seventh Street, S.W., Washington, DC 20590
Fax: (301) 386-2194
Publication #: DOT HS 808 894
Web site: www.nhtsa.dot.gov/people/outreach/traftech/pub/tt202.html

Best Practices for a Safe Community – A Vision for the Future: A Safe Community in Every Community in America

This booklet, published May 1992, explains what the Safe Community concept is, and lists the elements that promote safe communities. It includes "promising practice" activities for highway and traffic safety programs, and describes pedestrian and bike safety programs, data and analysis activities, and program evaluation.

Contact: Federal Highway Administration Division Office in your State and Federal Railroad Administration Regional offices
For grant program information, contact your Governor's Highway Safety Representative
Web site: www.nhtsa.dot.gov/people/outreach/safecomm/scbestp/

Demonstrating Your Program's Worth A Primer on Evaluation for Programs to Prevent Unintentional Injury

This book details how managers and coordinators can show the value of their SR2S efforts to funding and community agencies (including schools and school districts), to their peers, and to the community of people they serve. This book explains why evaluation is necessary. It also shows how to conduct simple evaluation, how to hire and supervise consultants for complex evaluation, and how to incorporate evaluation activities into the activities of an injury prevention program.

Contact: National Center for Injury Prevention and Control
Mailstop K65, 4770 Buford Highway NE, Atlanta, GA 30341-3724
Tel: (770) 488-1506
Fax: (770) 488-1667
E-mail: OHCINFO@cdc.gov
Web site: www.cdc.gov/ncipc/pub-res/demonstr.htm

Encouraging Walking: Advice to Local Authorities

The London Department of Environment, Transport, and the Regions developed this booklet as a practical working guide for people who can put policy into action. It recommends strategies to achieve specific objectives such as: making walking a primary transportation option, land use and development planning, and gathering data. It also includes checklists for implementing an approach to walking as a plus for the local environment.

Contact: Department of the Environment, Transport and the Regions
P.O. Box 236,Wetherby, West Yorkshire LS23 7NB, United Kingdom
Tel: 0870-1226-236
Fax: 0870-1226-237
Web site: www.dft.gov.uk

Getting to School Safely

This community action kit explains how to develop a School Transportation Safety Program. It includes fact sheets, talking points, state and regional resources, national organization resources, newspaper articles, and much more.

Contact: National Highway Traffic Safety Administration
U.S. Department of Transportation
400 7th St. SW, Washington, DC 20590
Fax: (202) 366-7721
Web site: www.nhtsa.dot.gov/people/injury/buses/GTSS/toc.html

Healthy People 2010

This publication offers a set of health objectives for Americans to strive to achieve in the first decade of the 21st century. "Healthy People 2010" presents a comprehensive, nationwide health promotion and disease prevention agenda to help states, communities, organizations, and individuals develop programs to improve health. Available in print or CD-ROM.

Contact: U.S. Government Printing Office
Tel: (800) 367-4725
Web site: www.bookstore.gpo.gov/ or www.health.gov/healthypeople/

Improving Conditions for Bicycling and Walking

This report describes outstanding projects that have increased walking, bicycling, and improved user safety in communities across America. Impressive is the variety of projects that have been initiated since the Intermodal Surface Transportation Efficiency Act was passed in 1991. With examples from all parts of the country, it describes on-road facilities and off-road trails, transit-related projects, and community planning efforts. All Four Es (encouragement, education, engineering, and enforcement) are represented.

Contact: Federal Highway Administration
Tel: (202) 366-5007
Web site: www.fhwa.dot.gov

Rails-to-Trails Conservancy
Tel: (202) 331-9696
Web site: www.railtrails.org

Association of Pedestrian and Bicycle Professionals
E-mail: pedbike@aol.com

Increasing Physical Activity Through Community Design – A Guide for Public Health Practitioners

This guide is designed to provide public health practitioners and others an introduction to increasing physical activity through better community design, and describes seven kinds of projects you promote to help create more bicycle-friendly and walkable communities. The guide discusses how such projects get funded and presents an array of resources to help with implementation.

Contact: National Center for Bicycling and Walking
1506 21st Street, N.W., Washington, DC 20036
Tel: (202) 463-6622
Fax: (202) 463-6625
E-mail: NCBW@bikewalk.org
Web site: www.bikewalk.org

KidsWalk-to-School: A Guide to Promote Walking to School

This guide by the Centers for Disease Control and Prevention is a tool to help you develop a walk-to-school program that is appropriate for your neighborhood. It includes a checklist and step-by-step guidelines for creating a KidsWalk-to-School program such as a "walking school bus." Sample letters, surveys, forms, and an extensive list of resources are included.

Contact: Tel: (888) CDC-4NRG (232-4674)
E-mail: ccdinfo@cdc.gov
Web site: www.cdc.gov/nccdphp/dnpa/kidswalk.htm

National Strategies for Advancing Child Pedestrian Safety
National Strategies for Advancing Bicycle Safety

Each publication was the result of a nationwide conference that brought researchers, activists, and officials together to recommend strategies. "National Strategies for Advancing Child Pedestrian Safety" (22 pages) details six strategies and action steps readily implemented by anyone interested in reducing pedestrian injuries among children, all while encouraging them to become more active and explore their environment on foot.

"National Strategies for Advancing Bicycle Safety" (25 pages) is designed to be a roadmap for policy makers, safety specialists, educators, and the bicycling community to follow as they promote national, state and local efforts to increase safe bicycling. It includes goals, strategies, short- and long-term actions that can reduce injuries associated with bicycle riding.

Contact: National Strategies for Advancing Child Pedestrian Safety
Web site: www.cdc.gov/ncipc/pedestrian/

National Strategies for Advancing Bicycle Safety
Tel: (888) CDC-4NRG (232-4674)
E-mail: ccdinfo@cdc.gov
Web site: www.nhtsa.dot.gov/people/injury/pedbimot/bike/bicycle_safety/index.htm

Pedestrian Safety Toolkit

This toolkit includes resource materials that states and communities can use to implement their pedestrian safety programs and achieve their goals. It contains a compilation of federal agency pedestrian safety videos; an interactive CD-ROM of pedestrian resources with subject-to-subject cross referencing; a user manual that explains how to create effective pedestrian safety programs; a resource manual that references NHTSA, Federal Highway Administration and Federal Railroad Administration materials; and sample materials and

information that cover the basics for all who want to do pedestrian safety and advocacy. In addition, the "User's Manual and Resource Guide" can be ordered separately.

Contact: Office of Communications and Consumer Information
U.S. Department of Transportation
National Highway Traffic Safety Administration
Tel: (888) DASH-2-DOT (327-4236)
Fax: (202) 493-2062
Web site: www.nhtsa.dot.gov

Safe Routes To Schools Toolkit

This toolkit, developed by the Marin County Safe Routes To Schools project in California — in partnership with NHTSA and the California Department of Health Services — is designed to be used in initiating and implementing a Safe Routes To Schools program. It includes examples of classroom activities, ideas for promotions, information on safe streets, resources, and forms to assist you along the way.

Contact: Marin County Safe Routes To Schools
P.O. Box 201, Forest Knolls, CA 94933
Tel: (415) 488-4101
Fax: (415) 488-0926
E-mail: wkallins@igc.org
Web site: www.saferoutestoschool.org or
www.nhtsa.dot.gov/people/injury/pedbimot/ped/saferouteshtml/

Safe Ways To School Toolkit

This toolkit details systematically how to create a Safe Ways To School program for your community. It provides an overview of the implementation process, and includes sample tools such as a student travel survey, parent survey, neighborhood site assessment, and implementation ideas. It also contains a video and sample materials, including handouts for students, parents, and schools.

Contact: Florida Traffic and Bicycle Safety Education Program
Department of Urban and Regional Planning
University of Florida
P.O. Box 115706, Gainesville, FL 32611-5706
Tel: (352) 392-0097
Fax: (352) 392-3308
Web site: web.dcp.ufl.edu/urp/research-centers-traffic.html

Way to Go! Manual and Resource Kit

The "Way to Go! Manual and Resource Kit" can help parents, teachers, and student groups design and implement school-based, traffic-reduction programs in their communities. It includes ideas, strategies, information, and educational and curriculum resources. Other manuals available include: "Bike Smarts: A Handbook;" "RoadSenseKids: Passport to Safety (Teaching Guide for K-3);" and "Walking/Wheeling Challenge Map."

Contact: Bernadette Kowey
3538 West 24th Avenue, Vancouver, B.C., Canada
Tel: (604) 732-1511 or (877) 325-3636
E-mail: waytogo@bc.sympatico.ca
Web site: www.waytogo.icbc.bc.ca

Organizations

California Department of Health Services

The California Department of Health Services encourages communities to pursue Safe Routes To School projects because of the sustained cultural and environmental improvements that enable children to be more physically active and safe. The California Department of Health Services, through its Active Community Environments and Injury Prevention divisions, has made Safe Routes To School a priority. California Department of Health Services supports the state's participation in Walk To School Day, distributing informational materials including brochures, fact sheets, timelines, and ideas for a successful Walk To School Day event. The Department also has helped to raise statewide awareness of SR2S.

Contact: California Department of Health Services
P.O. Box 942732 - Mail Stop 675, Sacramento, CA 94234-7320
Tel: (916) 323-4808
Web site: www.dhs.ca.gov/routes2school

Center for Health Training—Safe Routes To School Clearinghouse

The SR2S Clearinghouse offers support to local activists and public agency staff in their quest to develop safe routes to school in California communities. The Clearinghouse maintains a database of information related to Safe Routes To School efforts and communicates with local activists through e-mail updates and newsletters. The Clearinghouse offers technical assistance to activists and agency staff who need coaching on subjects related to Safe Routes To School such as traffic safety, healthy physical activity, curriculum, legislation, and policy. The Clearinghouse also facilitates focus groups and organizes conferences related to the subject.

The Center for Health Training is a California nonprofit organization with extensive of experience in supporting those who work in public health and community development.

Contact: Center for Health Training, SR2S Clearinghouse
614 Grand Avenue, Suite 400, Oakland, CA 94610
Tel: (877) 4-Safe-Rt (472-3378) Toll Free or (510) 835-3700
Fax: (510) 625-9307
E-mail: safert@jba-cht.com
Web site: www.4saferoutes.org

League of American Bicyclists

The League of American Bicyclists (originally founded in 1880 as the League of American Wheelman) works with local communities to promote bicycling for fun, fitness, and transportation through advocacy and education. The League of American Bicyclists is a membership organization with over 300,000 members, including individuals and organizations. The League's key programs include the Bicycle Friendly Communities Program that encourages and then rewards communities that provide better facilities for cyclists and the Bicycle Safety and Education Program, which provides materials and training courses for new cyclists. The League also advocates for cyclists on the national, state, and local levels.

Contact: League of American Bicyclists
1612 K. Street, NW, Suite 800, Washington, DC 20006-2850
Tel: (202) 822-1333
Fax: (202) 822-1334
E-mail: bikeleague@bikeleague.org
Web site: www.bikeleague.org

National Center for Bicycling and Walking

The National Center for Bicycling and Walking is the major program of the Bicycle Federation of America, Inc., a national, nonprofit corporation established in 1977. The National Center for Bicycling and Walking works with local, state, and national bicycle, pedestrian, and transportation advocates to bring about changes in government policies, programs, and procedures to help create more bicycle friendly and walkable communities. Ongoing National Center for Bicycling and Walking activities include: policy development, public involvement, route selection, planning and design guidelines for bicycle and pedestrian facilities; training programs for public health and transportation agencies; and organizing and managing workshops and conferences, including the biennial Pro Bike / Pro Walk conference.

Contact: National Center for Bicycling and Walking
DC Office & Headquarters
1506 21st Street NW, Suite 200, Washington, DC 20036
Tel: (202) 463-6622
Fax: (202) 463-6625
E-mail: info@bikewalk.org
Web site: www.bikewalk.org

National SAFE KIDS Campaign

The National SAFE KIDS Campaign is a national nonprofit organization dedicated exclusively to the prevention of unintentional childhood injuries (motor vehicle crashes, fires, and other injuries), which is the number one cause of death of children under the age of 14. The Campaign's aim is to stimulate changes in attitudes, behavior, and the environment. Since its inception in 1988, the Campaign has focused on developing injury prevention strategies—conducting public outreach and awareness campaigns, stimulating hands-on grassroots activity, and working to make injury prevention a public policy priority. The National SAFE KIDS Campaign and program sponsor FedEx Express developed SAFE KIDS Walk This Way in 2000 to bring national and local attention to pedestrian safety issues. The SAFE KIDS Walk This Way program involves Walk To School Day events, data collection, school pedestrian safety committees, and community pedestrian safety task forces. The Campaign relies on the support of more than 300 state and local SAFE KIDS coalitions in all 50 states, the District of Columbia, and Puerto Rico to reach out to local communities.

Contact: National SAFE KIDS Campaign
1301 Pennsylvania Ave., NW, Suite 1000, Washington, DC 20004
Tel: (202) 662-0600
Fax: (202) 393-2072
Web site: www.safekids.org

Surface Transportation Policy Project

The Surface Transportation Policy Project is a national coalition of more than 200 organizations working to promote transportation policies that protect neighborhoods, provide better travel choices, and promote social equity. The goal of the Surface Transportation Policy Project is to ensure that transportation policy and investments help conserve energy, protect environmental and aesthetic quality, strengthen the economy, promote social equity, and enhance community life. The Surface Transportation Policy Project emphasizes the needs of people, rather than vehicles, in assuring access to jobs, services, and recreational opportunities. The Surface Transportation Policy Project has offices in Sacramento and San Francisco, California; Albuquerque, New Mexico; and Washington, DC.

Contact: Surface Transportation Policy Project
1100 17th St., NW, 10th Floor, Washington, DC 20036
Tel: (202) 466-2636
Fax: (202) 466-2247
E-mail: stpp@transact.org
Web site: www.transact.org

University of North Carolina Highway Safety Research Center and the Pedestrian and Bicycle Information Center

The Pedestrian and Bicycle Information Center was established in 2001 with the idea that communities where people can walk and bicycle are better places to live. Funded by the United States Department of Transportation, the Center was started by the University of North Carolina Highway Safety Research Center, in cooperation with the Association of Pedestrian and Bicycle Professionals. The Center's goal is to connect communities with the information and resources they need to create safe places for walking and bicycling. The Pedestrian and Bicycle Information Center is a clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, and access and mobility. The Pedestrian and Bicycle Information Center serves planners, engineers, private citizens, advocates, educators, police enforcement, and the health community. The Highway Safety Research Center has also documented and supported the annual International Walk To School Day events in the United States since 1998.

Contact: Pedestrian and Bicycle Information Center
730 Airport Road, CB 3430, Chapel Hill, NC 27599-3430
Tel: (919) 843-4422
Web site: www.walkinginfo.org and www.bicyclinginfo.org

Appendix C: Walkability and Bikeability Checklists

Walkability Checklist

How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go.

The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall.

After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.

walkinginfo.org
Pedestrian and Bicycle Information Center

Partnership for a Walkable America

Pedestrian and Bicycle Information Center

U.S. Department of Transportation

Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk _____

_____

Rating Scale: 1 awful 2 many problems 3 some problems 4 good 5 very good 6 excellent

1. Did you have room to walk?

☐ Yes ☐ Some problems:

- ☐ Sidewalks or paths started and stopped
- ☐ Sidewalks were broken or cracked
- ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
- ☐ No sidewalks, paths, or shoulders
- ☐ Too much traffic
- ☐ Something else _____

Locations of problems: _____

Rating: (circle one)
1 2 3 4 5 6

2. Was it easy to cross streets?

☐ Yes ☐ Some problems:

- ☐ Road was too wide
- ☐ Traffic signals made us wait too long or did not give us enough time to cross
- ☐ Needed striped crosswalks or traffic signals
- ☐ Parked cars blocked our view of traffic
- ☐ Trees or plants blocked our view of traffic
- ☐ Needed curb ramps or ramps needed repair
- ☐ Something else _____

Locations of problems: _____

Rating: (circle one)
1 2 3 4 5 6

3. Did drivers behave well?

☐ Yes ☐ Some problems: Drivers...

- ☐ Backed out of driveways without looking
- ☐ Did not yield to people crossing the street
- ☐ Turned into people crossing the street
- ☐ Drove too fast
- ☐ Sped up to make it through traffic lights or drove through traffic lights?
- ☐ Something else _____

Locations of problems: _____

Rating: (circle one)
1 2 3 4 5 6

4. Was it easy to follow safety rules? Could you and your child...

☐ Yes ☐ No Cross at crosswalks or where you could see and be seen by drivers?

☐ Yes ☐ No Stop and look left, right and then left again before crossing streets?

☐ Yes ☐ No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?

☐ Yes ☐ No Cross with the light?

Locations of problems: _____

Rating: (circle one)
1 2 3 4 5 6

5. Was your walk pleasant?

☐ Yes ☐ Some unpleasant things:

- ☐ Needed more grass, flowers, or trees
- ☐ Scary dogs
- ☐ Scary people
- ☐ Not well lighted
- ☐ Dirty, lots of litter or trash
- ☐ Something else _____

Locations of problems: _____

Rating: (circle one)
1 2 3 4 5 6

How does your neighborhood stack up? Add up your ratings and decide.

1. _____
2. _____
3. _____
4. _____
5. _____

Total _____

26-30	Celebrate! You have a great neighborhood for walking.
21-25	Celebrate a little. Your neighborhood is pretty good.
16-20	Okay, but it needs work.
11-15	It needs lots of work. You deserve better than that.
5-10	Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again.

Now that you've identified the problems,
go to the next page to find out how to fix them.

Now that you know the problems,
you can find the answers.

Improving your community's score...

	What you and your child can do immediately	What you and your community can do with more time
1. Did you have room to walk?		
Sidewalks or paths started and stopped Sidewalks broken or cracked Sidewalks blocked No sidewalks, paths or shoulders Too much traffic	• pick another route for now • tell local traffic engineering or public works department about specific problems and provide a copy of the checklist	• speak up at board meetings • write or petition city for walkways and gather neighborhood signatures • make media aware of problem • work with a local transportation engineer to develop a plan for a safe walking route
2. Was it easy to cross streets?		
Road too wide Traffic signals made us wait too long or did not give us enough time to cross Crosswalks/traffic signals needed View of traffic blocked by parked cars, trees, or plants Needed curb ramps or ramps needed repair	• pick another route for now • share problems and checklist with local traffic engineering or public works department • trim your trees or bushes that block the street and ask your neighbors to do the same • leave nice notes on problem cars asking owners not to park there	• push for crosswalks/signals/ parking changes/curb ramps at city meetings • report to traffic engineer where parked cars are safety hazards • report illegally parked cars to the police • request that the public works department trim trees or plants • make media aware of problem
3. Did drivers behave well?		
Backed without looking Did not yield Turned into walkers Drove too fast Sped up to make traffic lights or drove through red lights	• pick another route for now • set an example: slow down and be considerate of others • encourage your neighbors to do the same • report unsafe driving to the police	• petition for more enforcement • request protected turns • ask city planners and traffic engineers for traffic calming ideas • ask schools about getting crossing guards at key locations • organize a neighborhood speed watch program
4. Could you follow safety rules?		
Cross at crosswalks or where you could see and be seen Stop and look left, right, left before crossing Walk on sidewalks or shoulders facing traffic Cross with the light	• educate yourself and your child about safe walking • organize parents in your neighborhood to walk children to school	• encourage schools to teach walking safely • help schools start safe walking programs • encourage corporate support for flex schedules so parents can walk children to school
5. Was your walk pleasant?		
Needs grass, flowers, trees Scary dogs Scary people Not well lit Dirty, litter	• point out areas to avoid to your child; agree on safe routes • ask neighbors to keep dogs leashed or fenced • report scary dogs to the animal control department • report scary people to the police • report lighting needs to the police or appropriate public works department • take a walk wih a trash bag • plant trees, flowers in your yard	• request increased police enforcement • start a crime watch program in your neighborhood • organize a community clean-up day • sponsor a neighborhood beautification or tree-planting day • begin an adopt-a-street program

A Quick Health Check		
Could not go as far or as fast as we wanted Were tired, short of breath or had sore feet or muscles	• start with short walks and work up to 30 minutes of walking most days • invite a friend or child along	• get media to do a story about the health benefits of walking • call parks and recreation department about community walks • encourage corporate support for employee walking programs

Need some guidance?
These resources might help...

Great Resources

WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road , Suite 300
Campus Box 3430
Chapel Hill, NC
27599-3430
Phone: (919) 962-2202
www.pedbikeinfo.org
www.walkinginfo.org

National Center for
Bicycling and
Walking
Campaign to Make
America Walkable
1506 21st Street, NW
Suite 200
Washington, DC 20036
Phone: (800) 760-NBPC
www.bikefed.org

WALK TO SCHOOL DAY WEB SITES

USA event: www.walktoschool-usa.org
International: www.iwalktoschool.org

STREET DESIGN AND TRAFFIC CALMING

Federal Highway Administration
Pedestrian and Bicycle Safety Research Program
HSR - 20
6300 Georgetown Pike
McLean,VA 22101
www.fhwa.dot.gov/environment/bikeped/index.htm

Institute of Transportation Engineers
www.ite.org

Surface Transportation Policy Project
www.transact.org

Transportation for Livable Communities
www.tlcnetwork.org

ACCESSIBLE SIDEWALKS

US Access Board
1331 F Street, NW
Suite 1000
Washington, DC 20004-1111
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov

PEDESTRIAN SAFETY

National Highway Traffic Safety Administration
Traffic Safety Programs
400 Seventh Street, SW
Washington, DC 20590
Phone: (202) 662-0600
www.nhtsa.dot.gov/people/injury/pedbimot/ped

National SAFE KIDS Campaign
1301 Pennsylvania Ave. NW
Suite 1000
Washington, DC 20004
Phone: (202) 662-0600
Fax: (202) 393-2072
www.safekids.org

WALKING AND HEALTH

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
Phone: (888) 232-4674
www.cdc.gov/nccdphp/dnpa/readyset
www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm

Prevention Magazine
33 East Minor Street
Emmaus, PA 18098
www.itsallaboutprevention.com

Shape Up America!
6707 Democracy
Boulevard
Suite 306
Bethesda, MD
20817
www.shapeup.org

WALKING COALITIONS

America Walks
P.O. Box 29103
Portland, Oregon
97210
Phone: (503) 222-1077
www.americawalks.org

Partnership for a Walkable America
National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201
Phone: (603) 285-1121
www.nsc.org/walkable.htm

Bikeability Checklist

How bikeable is your community?

Riding a bike is fun!

Bicycling is a great way to get around and to get your daily dose of physical activity. It's good for the environment, and it can save you money. No wonder many communities are encouraging people to ride their bikes more often!

Can you get to where you want to go by bike?

Some communities are more bikeable than others: how does yours rate? Read over the questions in this checklist and then take a ride in your community, perhaps to the local shops, to visit a friend, or even to work. See if you can get where you want to go by bicycle, even if you are just riding around the neighborhood to get some exercise.

At the end of your ride, answer each question and, based on your opinion, circle an overall rating for each question. You can also note any problems you encountered by checking the appropriate box(es). Be sure to make a careful note of any specific locations that need improvement.

Add up the numbers to see how you rated your ride. Then, turn to the pages that show you how to begin to improve those areas where you gave your community a low score.

Before you ride, make sure your bike is in good working order, put on a helmet, and be sure you can manage the ride or route you've chosen. Enjoy the ride!

bicyclinginfo.org
Pedestrian and Bicycle Information Center

NHTSA
National Highway Traffic Safety Administration

Pedestrian and Bicycle Information Center

U.S. Department of Transportation

Go for a ride and use this checklist to rate your neighborhood's bikeability.

How bikeable is your community?

Location of bike ride (be specific): _____

Rating Scale: 1 awful | 2 many problems | 3 some problems | 4 good | 5 very good | 6 excellent

1. Did you have a place to bicycle safely?

a) On the road, sharing the road with motor vehicles?

☐ Yes ☐ Some problems (please note locations):

- ☐ No space for bicyclists to ride
- ☐ Bicycle lane or paved shoulder disappeared
- ☐ Heavy and/or fast-moving traffic
- ☐ Too many trucks or buses
- ☐ No space for bicyclists on bridges or in tunnels
- ☐ Poorly lighted roadways

Other problems: _____

_____

b) On an off-road path or trail, where motor vehicles were not allowed?

☐ Yes ☐ Some problems:

- ☐ Path ended abruptly
- ☐ Path didn't go where I wanted to go
- ☐ Path intersected with roads that were difficult to cross
- ☐ Path was crowded
- ☐ Path was unsafe because of sharp turns or dangerous downhills
- ☐ Path was uncomfortable because of too many hills
- ☐ Path was poorly lighted

Other problems: _____

_____

Overall "Safe Place To Ride" Rating: (circle one)

1 2 3 4 5 6

2. How was the surface that you rode on?

☐ Good ☐ Some problems, the road or path had:

- ☐ Potholes
- ☐ Cracked or broken pavement
- ☐ Debris (e.g. broken glass, sand, gravel, etc.)
- ☐ Dangerous drain grates, utility covers, or metal plates
- ☐ Uneven surface or gaps
- ☐ Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
- ☐ Bumpy or angled railroad tracks
- ☐ Rumble strips

Other problems: _____

_____

Overall Surface Rating: (circle one)

1 2 3 4 5 6

3. How were the intersections you rode through?

☐ Good ☐ Some problems:

- ☐ Had to wait too long to cross intersection
- ☐ Couldn't see crossing traffic
- ☐ Signal didn't give me enough time to cross the road
- ☐ Signal didn't change for a bicycle
- ☐ Unsure where or how to ride through intersection

Other problems: _____

_____

Overall Intersection Rating: (circle one)

1 2 3 4 5 6

Continue the checklist on the next page...

4. Did drivers behave well?

☐ Yes ☐ Some problems, drivers:

- ☐ Drove too fast
- ☐ Passed me too close
- ☐ Did not signal
- ☐ Harassed me
- ☐ Cut me off
- ☐ Ran red lights or stop sign

Other problems: _____

_____

Overall Driver Rating: (circle one)

1 2 3 4 5 6

5. Was it easy for you to use your bike?

☐ Yes ☐ Some problems:

- ☐ No maps, signs, or road markings to help me find my way
- ☐ No safe or secure place to leave my bicycle at my destination
- ☐ No way to take my bicycle with me on the bus or train
- ☐ Scary dogs
- ☐ Hard to find a direct route I liked
- ☐ Route was too hilly

Other problems: _____

_____

Overall Ease of Use Rating: (circle one)

1 2 3 4 5 6

6. What did you do to make your ride safer?

Your behavior contributes to the bikeability of your community. Check all that apply:

- ☐ Wore a bicycle helmet
- ☐ Obeyed traffic signal and signs
- ☐ Rode in a straight line (didn't weave)
- ☐ Signaled my turns
- ☐ Rode with (not against) traffic
- ☐ Used lights, if riding at night
- ☐ Wore reflective and/or retroreflective materials and bright clothing
- ☐ Was courteous to other travelers (motorist, skaters, pedestrians, etc.)

7. Tell us a little about yourself.

In good weather months, about how many days a month do you ride your bike?

- ☐ Never
- ☐ Occasionally (one or two)
- ☐ Frequently (5–10)
- ☐ Most (more than 15)
- ☐ Every day

Which of these phrases best describes you?

- ☐ An advanced, confident rider who is comfortable riding in most traffic situations
- ☐ An intermediate rider who is not really comfortable riding in most traffic situations
- ☐ A beginner rider who prefers to stick to the bike path or trail

How does your community rate? Add up your ratings and decide.

(Questions 6 and 7 do not contribute to your community's score)

1. _____
2. _____
3. _____
4. _____
5. _____

Total _____

26–30	Celebrate! You live in a bicycle-friendly community.
21–25	Your community is pretty good, but there's always room for improvement.
16–20	Conditions for riding are okay, but not ideal. Plenty of opportunity for improvements.
11–15	Conditions are poor and you deserve better than this! Call the mayor and the newspaper right away.
5–10	Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again.

Did you find something that needs to be changed?

On the next page, you'll find suggestions for improving the bikeability of your community based on the problems you identified. Take a look at both the short- and long-term solutions and commit to seeing at least one of each through to the end. If you don't, then who will?

During your bike ride, how did you feel physically? Could you go as far or as fast as you wanted to? Were you short of breath, tired, or were your muscles sore? The next page also has some suggestions to improve the enjoyment of your ride.

Bicycling, whether for transportation or recreation, is a great way to get 30 minutes of physical activity into your day. Riding, just like any other activity, should be something you enjoy doing. The more you enjoy it, the more likely you'll stick with it. Choose routes that match your skill level and physical activities. If a route is too long or hilly, find a new one. Start slowly and work up to your potential.

Now that you know the problems,
you can find the answers.

Improving your community's score...

1. Did you have a place to bicycle safely?

	What you can do immediately	What you and your community can do with more time
a) On the road?		
No space for bicyclists to ride (e.g. no bike lane or shoulder; narrow lanes) Bicycle lane or paved shoulder disappeared Heavy and/or fast-moving traffic Too many trucks or buses No space for bicyclists on bridges or in tunnels Poorly lighted roadways	• pick another route for now • tell local transportation engineers or public works department about specific problems; provide a copy of your checklist • find a class to boost your confidence about riding in traffic	• participate in local planning meetings • encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads • ask your public works department to consider "Share the Road" signs at specific locations • ask your state department of transportation to include paved shoulders on all their rural highways • establish or join a local bicycle advocacy group
b) On an off-road path or trail?		
Path ended abruptly Path didn't go where I wanted to go Path intersected with roads that were difficult to cross Path was crowded Path was unsafe because of sharp turns or dangerous downhills Path was uncomfortable because of too many hills Path was poorly lighted	• slow down and take care when using the path • find an on-street route • use the path at less crowded times • tell the trail manager or agency about specific problems	• ask the trail manager or agency to improve directional and warning signs • petition your local transportation agency to improve path/roadway crossings • ask for more trails in your community • establish or join a "Friends of the Trail" advocacy group

2. How was the surface you rode on?

Potholes Cracked or broken pavement Debris (e.g. broken glass, sand, gravel, etc.) Dangerous drain grates, utility covers, or metal plates Uneven surface or gaps Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings) Bumpy or angled railroad tracks Rumble strips	• report problems immediately to public works department or appropriate agency • keep your eye on the road/path • pick another route until the problem is fixed (and check to see that the problems are fixed) • organize a community effort to clean up the path	• work with your public works and parks department to develop a pothole or hazard report card or online link to warn the agency of potential hazards • ask your public works department to gradually replace all dangerous drainage grates with more bicycle-friendly designs, and improve railroad crossings so cyclists can cross them at 90 degrees • petition your state DOT to adopt a bicycle-friendly rumble-strip policy

3. How were the intersections you rode through?

Had to wait too long to cross intersection Couldn't see crossing traffic Signal didn't give me enough time to cross the road The signal didn't change for a bicycle Unsure where or how to ride through intersection	• pick another route for now • tell local transportation engineers or public works department about specific problems • take a class to improve your riding confidence and skills	• ask the public works department to look at the timing of the specific traffic signals • ask the public works department to install loop-detectors that detect bicyclists • suggest improvements to sightlines that include cutting back vegetation; building out the path crossing; and moving parked cars that obstruct your view • organize community-wide, on-bike training on how to safely ride through intersections

Improving your community's score...

(continued)

	What you can do immediately	What you and your community can do with more time
4. Did drivers behave well?		
Drivers: Drove too fast Passed me too close Did not signal Harassed me Cut me off Ran red lights or stop signs	• report unsafe drivers to the police • set an example by riding responsibly; obey traffic laws; don't antagonize drivers • always expect the unexpected • work with your community to raise awareness to share the road	• ask the police department to enforce speed limits and safe driving • encourage your department of motor vehicles to include "Share the Road" messages in driver tests and correspondence with drivers • ask city planners and traffic engineers for traffic calming ideas • encourage your community to use cameras to catch speeders and red light runners
5. Was it easy for you to use your bike?		
No maps, signs, or road markings to help me find my way No safe or secure place to leave my bicycle at my destination No way to take my bicycle with me on the bus or train Scary dogs Hard to find a direct route I liked Route was too hilly	• plan your route ahead of time • find somewhere close by to lock your bike; never leave it unlocked • report scary dogs to the animal control department • learn to use all of your gears!	• ask your community to publish a local bike map • ask your public works department to install bike parking racks at key destinations; work with them to identify locations • petition your transit agency to install bike racks on all their buses • plan your local route network to minimize the impact of steep hills • establish or join a bicycle user group (BUG) at your workplace
6. What did you do to make your ride safer?		
Wore a bicycle helmet Obeyed traffic signals and signs Rode in a straight line (didn't weave) Signaled my turns Rode with (not against) traffic Used lights, if riding at night Wore reflective materials and bright clothing Was courteous to other travelers (motorists, skaters, pedestrians, etc.)	• go to your local bike shop and buy a helmet; get lights and reflectors if you are expecting to ride at night • always follow the rules of the road and set a good example • take a class to improve your riding skills and knowledge	• ask the police to enforce bicycle laws • encourage your school or youth agencies to teach bicycle safety (on-bike) • start or join a local bicycle club • become a bicycle safety instructor

5

Need some guidance?
These resources might help...

Great Resources

STREET DESIGN AND BICYCLE FACILITIES

American Association of State Highway and Transportation Officials
444 North Capitol Street, NW, Suite 249
Washington, DC 20001
Tel: (202) 624-5800
www.aashto.org

Institute of Transportation Engineers
1099 14th Street, NW, Suite 300 West
Washington, DC 20005-3438
Tel: (202) 289-0222
www.ite.org

Association of Pedestrian and Bicycle Professionals (APBP)
P.O. Box 23576
Washington, DC 20026
Tel: (202) 366-4071
www.apbp.org

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
730 Airport Road, Suite 300
Campus Box 3430
Chapel Hill, NC 27599-3430
Tel: (919) 962-2202
www.pedbikeinfo.org
www.bicyclinginfo.org

Federal Highway Administration
400 Seventh Street, SW
Washington, DC 20590
www.fhwa.dot.gov/environment/bikeped/index.htm

EDUCATION AND SAFETY

National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, D.C. 20590
Tel: (202) 366-1739
www.nhtsa.dot.gov/people/injury/pedbimot/bike/

League of American Bicyclists
1612 K Street NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Bicycle Safety Network
www.cdc.gov/ncipc/bike/default.htm

National Safe Kids Campaign
1301 Pennsylvania Ave NW, Suite 1000
Washington, DC 20004
Tel: (202) 662-0600
www.safekids.org

PATHS AND TRAILS

Rails to Trails Conservancy
1100 17th Street SW, 10th Floor
Washington, DC 20036
Tel: (202) 331-9696
www.railtrails.org

National Park Service
Rivers, Trails and Conservation Assistance Program
1849 C Street, NW, MS-3622
Washington, DC 20240
www.ncrc.nps.gov/rtca/rtca-ofh.htm

HEALTH

Centers for Disease Control and Prevention
Division of Nutrition and Physical Activity
4770 Buford Highway, NE
Atlanta, GA 30341-3724
www.cdc.gov/nccdphp/dnpa
Tel: (770) 488-5692

National Center for Injury Prevention and Control
Childhood Injury Prevention
4770 Buford Highway, NE
Atlanta, GA 30341
www.cdc.gov/ncipc

ADVOCACY AND USER GROUPS

Thunderhead Alliance
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.thunderheadalliance.org

League of American Bicyclists
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: (202) 822-1333
www.bikeleague.org

National Center for Bicycling and Walking
1506 21st Street, NW, Suite 200
Washington, DC 20036
Tel: (202) 463-6622
www.bikewalk.org

Surface Transportation Policy Project
1100 17th Street, NW, 10th Floor
Washington, DC 20036
Tel: (202) 466-2636
www.transact.org

OTHER USEFUL RESOURCES

Bikes and transit: www.bikemap.com

Bicycle information: www.bicyclinginfo.org

Bicycle-related research:
www.tfhrc.gov/safety/pedbike/pedbike.htm

Bicycling Magazine: www.bicycling.com/

Bicycle touring:
Adventure Cycling Association
P.O. Box 8308
Missoula, MT 59807
(800) 755-2453
(406) 721-8754
www.adv-cycling.org

Appendix D:
Steps to Start a Safe Routes To School (SR2S) Project

Essential Steps

Starting a Safe Routes To School (SR2S) project is not as difficult as you might think. It will take time and effort, but it can be done. Through our research and review of SR2S projects and materials, we have identified steps that are essential to developing an SR2S project. Not all projects require gathering all the information listed under each step, nor must you follow the order listed here.

■ Step 1: Understand the Community Situation and Identify the Problem(s)

- ❑ Collect and review data on issues such as: number or percentage of children walking to school, child pedestrian- and bicycle-related injuries and fatalities, number of overweight children, level of children's physical fitness, traffic congestion, crime rates, and air pollution.
- ❑ Collect school data including: school population by grade; number of families in your school community; number of out-of-area children and families at your neighborhood school; number of students who participate in after-school programs and location of these programs; and physical education class schedules and attendance rates.

■ Step 2: Identify and Contact Potential Partners and Stakeholders

- ❑ Write a letter explaining the project to potential volunteers, partners, and organizations including law enforcement, school personnel, parents, and neighbors.
- ❑ Explain the specific problems the SR2S project will address, and ask for support as you research your neighborhood for safety (walkability and/or bikeability checklist).

■ Step 3: Research and Assess the Situation

- ❑ Demonstrate the interest and need for a SR2S project by conducting student and parent surveys to gather baseline information about walking and bicycling to school, and barriers and risks.
- ❑ Compile a database of potential parent volunteers and a list of families that are already using active transportation to and from school.
- ❑ Map your school catchment area and neighborhood to identify: location of neighborhood school; streets and entrances to school grounds; routes children walk and bicycle to school; locations where cars and school buses drop off or pick up children; bike paths, best routes, crosswalks; and safety hazards and safety concerns.

Step 4: Walk to Assess Safety and Walkability, and Consult with Traffic Safety Experts

- ❑ Walk the neighborhoods and document conditions to identify areas where cars conflict with schoolchildren's safety, and isolated areas where children could be at risk.
- ❑ Consult with transportation or traffic experts to develop ideas for improving or changing traffic patterns.

Step 5: Schedule Planning Meeting with All Concerned

- ❑ Invite faculty, staff, parents, and children to a meeting at which you make a short presentation about the SR2S project.
- ❑ Suggest goals and objectives, and present survey and mapping results.

Step 6: Design Your Project and Develop an Action Plan

- ❑ Decide on the type of activities the project is likely to undertake, such as: changes to improve safety and convenience, traffic safety awareness, code enforcement, and events that promote walking and bicycling.
- ❑ Assign tasks to volunteers, and agree on a reasonable completion date for each task.
- ❑ Set priorities and deadlines for your action plan.

Step 7: Implement Your Action Plan

- ❑ Find a "champion" to serve as key organizer of the project, help lead the effort, and keep the project focused and on task.
- ❑ Give all team members an organizational chart of the tasks and person responsible for each task and due dates; include contact information for all participants.
- ❑ Involve the children as much as possible in the campaign to promote the project, especially for special events.

Step 8: Promote and Plan a Kickoff Event to Launch Your SR2S Project

- ❑ Send home a letter from the principal to promote the project; use the school newsletter; put up posters about the project around the school; ask teachers to talk about it in class; make public address announcements at the school; post flyers in local apartment buildings, libraries, and community centers.
- ❑ Hold the kickoff event in conjunction with a special occasion, such as the annual International Walk To School Day or Earth Day.
- ❑ Invite the media, local law enforcement officers, politicians, celebrities, and team or organization mascots to participate; have give-aways for the children.

■ Step 9: Evaluate the SR2S Project

- ❑ Conduct an evaluation of the project to identify successes and problems, and to confirm that the project is meeting its goals and objectives.
- ❑ Generate support, and help others who are planning an SR2S project.
- ❑ Keep measuring your success; refine and conduct new surveys.

■ Step 10: Maintain Your SR2S Project

- ❑ Reintroduce the project at the start of each school year with a kickoff event and send information home about the project. Also meet with the principal and teachers at the beginning of the year to plan classroom activities on traffic safety.
- ❑ Hold regular SR2S team meetings at a time when most people can attend.
- ❑ Inform your community of your successes at the meetings; and through newsletters and newspaper articles.
- ❑ Look for funding opportunities.
- ❑ Connect with other SR2S activists to share strategies and organize efforts for regional policy changes.

Useful SR2S Toolkits

Much of the information to help you through these 10 essential steps for starting a Safe Routes To School project were gathered from the many SR2S toolkits available that offer detailed step-by-step instructions, strategies, sample materials, and resources. The toolkits that we found useful were:

- ❑ Safe Routes To School (Marin County, California, Bicycle Coalition)
- ❑ Kids-Walk-To-School, (Centers for Disease Control and Prevention, Atlanta, Georgia)
- ❑ Safe Ways To School (Florida Traffic and Bicycle Safety Education Program, Federal Department of Transportation)
- ❑ Active and Safe Routes To School (Greenest Cities, Toronto, Canada)
- ❑ Way To Go! School Program Manual (The Road Sense Team, British Columbia)

Please refer to **Appendix B: Resource, Publications, and Organizations** for additional information on these toolkits and how you can obtain a copy. The toolkits can help you start an SR2S project and alter and adapt any of the steps described to better suit your school and community's situation.

Appendix E: National Transportation Law and Funding

In 1991, Congress passed the Intermodal Surface Transportation and Efficiency Act (ISTEA), and ushered in a new era of transportation law and funding. States were given much more flexibility in deciding how to use their federal transportation dollars, and pedestrian and bicycle facilities gained prominence in states' transportation plans. The next national law, the Transportation Equity Act for the 21st Century (TEA-21), continued many of the policies introduced in ISTEA. Many states now pay significant attention to the needs of cyclists and walkers, often with Departments of Transportation partnering with Departments of Health to promote healthy, active transportation. Within this framework, Safe Routes to School projects can hope for both financial and policy support.

Congress is currently working on a new national transportation bill. As this publication goes to press, we do not know all of the details of the new law. However, we can take a look backward at the provisions included in TEA-21, and gain some understanding of the various parts of the law that might afford support for SR2S projects. The following information was taken from a Federal Highway Administration (FHWA) publication entitled "A Summary: Bicycle and Pedestrian Provisions of the Federal Aid Program."

Funding Sources

TEA-21 increased transportation spending by more than 40 percent without altering the basic funding programs and planning system created in 1991 by the Intermodal Surface Transportation Efficiency Act (ISTEA). There have been some changes to the way the programs will function as follows:

Federal-Aid Highway Program

National Highway System (NHS) funds may be used to construct bicycle transportation facilities and pedestrian walkways on land adjacent to any highway on the National Highway System. The Interstate Maintenance and NHS programs have almost $60 billion over the six years of the law.

Surface Transportation Program (STP) (Section 1108) funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways, or nonconstruction projects (such as maps, brochures, and public service announcements) related to safe bicycle use. TEA-21 lists "the modification of public sidewalks to comply with the Americans with Disabilities Act" as an activity that is specifically eligible for the use of these funds. Approximately $33 billion is authorized for

this program over the six years of the legislation (Section 1101(a)(4)).

Transportation Enhancement Activities (TEAs) (Section 1201, paragraph 35) funds are a 10 percent set aside from each state's annual STP funds (total is approximately $3.3 billion). Provision of facilities for bicyclists and pedestrians, and the preservation of abandoned railroad corridors (including the conversion and use thereof for bicycle or pedestrian trails), remain eligible activities. Among the changes were:

a) The range of eligible activities was expanded to include:
   - Safety and educational activities for pedestrians and bicyclists
   - Tourist and welcome centers
   - Environmental mitigation to reduce vehicle-caused wildlife mortality while maintaining habitat connectivity
   - Establishment of transportation museums

b) The definition of a transportation enhancement activity includes the phrase "if such activity relates to surface transportation" to try and ensure a transportation purpose for each project.

c) The 80 percent federal matching requirement now applies only to the total non-federal share of all projects in a State rather than each individual project. In addition, there is continued flexibility for what funds and services may be credited to the non-federal share.

d) 25 percent of the funds each State receives over the amount received in FY 1997 may be transferred into other STP activities.

e) Eight "designated transportation enhancement activities" are funded off the top of the enhancement program funds, including a depot restoration in Gettysburg ($800,000); a scenic byways center in Duluth, MN ($1.5 million per year); the Coal Heritage Trail scenic byway in West Virginia ($6 million); $11 million for traffic calming measures in two suburban Virginia counties; a $1 million pedestrian bridge in Charlottesville, VA; and $2 million for the Chain of Rocks bridge across the Missouri River in St. Louis. (Section 1215)

Hazard Elimination and Railway-Highway Crossing Programs (Section 1401) are another ten percent set aside of each State's STP funds. Bicycling and pedestrian safety are now eligible for funding in this category. In addition, the definition of a "public road" now includes a publicly owned bicycle or pedestrian pathway or trail and traffic calming measures. Each State is required to implement a Hazard Elimination Program to identify and correct locations that may constitute a danger to motorists, bicyclists, and pedestrians. Funds may be used for activities including:

a) A survey of hazardous locations and

b) Projects on any publicly owned bicycle or pedestrian pathway or trail, or

c) Any safety-related traffic calming measure. Improvements to railway-highway crossings "shall take into account bicycle safety."

Congestion Mitigation and Air Quality Improvement Program (CMAQ) (Section 1110) funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects (such as maps, brochures, and public service announcements) related to safe bicycle use. Approximately $8.12 billion is authorized for the six years of the law. Fifty percent of the funds a state receives in excess of the amount they get when the program is funded at $1.353 billion per year (which happens in FY 2000) may be transferred into other programs (Section 1310).

Recreational Trails Program (RTP) (Section 1112) funds may be used for all kinds of trail projects. Of the funds apportioned to a State, 30 percent must be used for motorized trail uses, 30 percent for non-motorized trail uses, and 40 percent for diverse trail uses (any combination). Annual funding in FY 2000 and beyond is $50 million per year.

Federal Lands Highway Program funds may be used to construct bicycle and pedestrian transportation facilities in conjunction with roads, highways, and parkways on or adjacent to Federal Land. Priority for funding is determined by the appropriate Federal Land Agency or Tribal government.

National Scenic Byways Program funds may be used for construction of a facility along a scenic byway for pedestrians and bicyclists.

Job Access and Reverse Commute Grants are available to support projects, including bicycle-related services, designed to transport welfare recipients and eligible low-income individuals to and from employment.

High Priority Projects and Designated Transportation Enhancement Activities identified by TEA-21 include numerous bicycle, pedestrian, trail, and traffic calming projects in communities throughout the country. The legislation contains more than 1,850 high priority projects of which approximately 112 have a bike, pedestrian, or trail element to them. Funding for these projects is almost $200 million.

Federal Transit Program

Title 49 U.S.C. (as amended by TEA-21) allows the **Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program for Other than Urbanized Area** transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investment in "pedestrian and bicycle access to a mass transportation facility" that establishes or enhances coordination between mass transportation and other transportation.

TEA-21 also created a **Transit Enhancement** Activity program with a one percent set aside of Urbanized Area Formula Grant funds designated for, among other things, pedestrian access and walkways,

and "bicycle access, including bicycle storage facilities, and installing equipment for transporting bicycles on mass transportation vehicles."

Highway Safety Programs

Pedestrian and bicyclist safety remain priority areas for State and Community Highway Safety Grants funded by the Section 402 formula grant program. A State is eligible for these grants by submitting a Performance plan (establishing goals and performance measures for improving highway safety), and a Highway Safety Plan (describing activities to achieve those goals). Funding is approximately $150 million per year rising to $160 million in 2003.

Research, development, demonstrations, and training to improve highway safety (including bicycle and pedestrian safety) is carried out under the Highway Safety Research and Development (Section 403) program. Funding is approximately $72 million per year.

Federal/State Matching Requirements

In general, the Federal share of the costs of transportation projects is 80 percent with a 20 percent State or local match. However, there are a number of exceptions to this rule.

- Federal Lands Highway projects and Section 402 Highways Safety funds are 100 percent federally funded.
- Bicycle-related Transit Enhancement Activities are 95 percent federally funded.
- Hazard elimination projects are 90 percent federally funded. Bicycle-related transit projects (other than Transit Enhancement Activities) may be up to 90 percent federally funded.
- Individual Transportation Enhancement Activity projects under the STP can have a Federal match higher or lower than 80 percent. However, the overall Federal share of each State's Transportation Enhancement Program must be 80 percent.
- States with higher percentages of Federal Lands have higher Federal shares calculated in proportion to their percentage of Federal lands.
- The State and/or local funds used to match Federal-aid highway projects may include in-kind contributions (such as donations). Funds from other Federal programs may also be used to match Transportation Enhancement, Scenic Byways, and Recreational Trails program funds. A Federal agency project sponsor may provide matching funds to Recreational Trails funds provided the Federal share does not exceed 95 percent.

Planning for Bicycling and Walking

States and Metropolitan Planning Organizations (MPOs), a planning agency established for each urbanized area of more than 50,000 population, are required to carry out a continuing, comprehensive, and cooperative transportation planning process that results in two products.

1. A long-range (20 year) transportation plan provides for the development and integrated management and operation of transportation systems and facilities, including pedestrian walkways and bicycle transportation facilities. Both State and MPO plans will consider projects and strategies to increase the safety and security of the transportation system for non-motorized users.
2. A Transportation Improvement Program (TIP) contains a list of proposed federally supported projects to be carried out over the next three years. Projects that appear in the TIP should be consistent with the long-range plan.

The transportation planning process is carried out with the active and ongoing involvement of the public, affected public agencies, and transportation providers.

Section 1202 of TEA-21 says that bicyclists and pedestrians shall be given due consideration in the planning process (including the development of both the plan and TIP), and that bicycle facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities except where bicycle use and walking are not permitted. Transportation plans and projects shall also consider safety and contiguous routes for bicyclists and pedestrians. Safety considerations may include the installation of audible traffic signals and signs at street crossings.

Policy and Program Provisions

State Bicycle and Pedestrian Coordinators

Each State is required to fund a Bicycle and Pedestrian Coordinator position in its State Department of Transportation to promote and facilitate the increased use of non-motorized transportation, including developing facilities for the use of pedestrians and bicyclists, and public educational, promotional, and safety programs for using such facilities. Funds such as the CMAQ or STP may be used for the Federal share of the cost of these positions. In many States, the Coordinator is a full-time position with sufficient responsibility to deal effectively with other agencies, State offices, and divisions within the State DOT.

Protection of Non-Motorized Transportation Traffic

The Secretary shall not approve any project or take any regulatory action that will result in the severance of an existing major route, or have an adverse impact on the safety of non-motorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route already exists.

Users of A Bicycle and Pedestrian Facility

Motorized vehicles are not permitted on trails and pedestrian walkways except for maintenance purposes, motorized wheelchairs, and – when State or local regulations permit

–snowmobiles and electric bicycles. Electric bicycles are defined for the purposes of the Act as a bicycle or tricycle with a low-powered electric motor weighing under 100 pounds with a top motor-powered speed not in excess of 20 miles per hour.

Facility Design Guidance

The design of bicycle and pedestrian facilities is determined by State and local design standards and practices, many of which are based on publications of the American Association of State Highway and Transportation Officials (AASHTO) such as the *Guide to the Development of Bicycle Facilities and A Policy on Geometric Design of Streets and Highways.*

TEA-21 calls on the Federal Highway Administration to develop guidance on the various approaches to accommodating bicycle and pedestrian travel, in cooperation with AASHTO, the Institute of Transportation Engineers, and other interested organizations. The guidance, was revised in February 2000. It encourages the inclusion of facilities for bicyclists and pedestrians as a routine practice.

Bridges

When a highway bridge deck—on which bicyclists are permitted or may operate at each end of the bridge—is being replaced or rehabilitated with Federal funds, safe accommodation of bicycles is required unless the Secretary of Transportation determines that this cannot be done at a reasonable cost.

Railway-Highway Crossings

When improvements to at-grade railway-highway crossings are being considered, bicycle safety must be taken into account.

Research, Special Studies, and Reports

TEA-21 continues funding for highway safety research (Section 403), the National Cooperative Highway Research Program (NCHRP) and Transit Cooperative Research Program (TCRP), all of which have funded research into pedestrian and bicycle issues. In addition, the legislation creates a number of new research areas, special studies, reports, and grant programs including:

- A new Surface Transportation-Environment Cooperative Research Program is established to evaluate transportation control measures, improve understanding of transportation demand factors, and develop performance indicators that will facilitate the analysis of transportation alternatives.
- $500,000 is made available for the development of a national bicycle safety education curriculum.
- $500,000 per year is made available for grants to a national not-for-profit organization engaged in promoting bicycle and pedestrian safety to operate a national clearinghouse, develop informational and educational programs, and disseminate techniques and strategies for improving bicycle and pedestrian safety.

- $200,000 is made available for a study of the safety issues attendant to the transportation of school children to and from school and school-related activities by various transportation modes. Transportation Research Board is identified as the manager of the study, which must be done within 12 months and the panel conducting the study must include bicycling organizations. (Section 4030)
- A study of transit needs in National Parks and related public lands includes a requirement that the study assess the feasibility of alternative transportation modes. (Section 3039)
- The Bureau of Transportation Statistics is charged with establishing and maintaining a transportation data base for all modes of transportation that will include "information on the volumes and patterns of movement of people, including local, inter-regional, and international movements, by all modes of transportation (including bicycle and pedestrian modes) and intermodal combinations, by all relevant classifications. (Section 5109)

Conclusion

Bicycling and walking are important elements of an integrated, intermodal transportation system. Constructing sidewalks, installing bicycle parking at transit, teaching children to ride and walk safely, installing curb cuts and ramps for wheelchairs, striping bike lanes, and building trails all contribute to our national transportation goals of safety, mobility, economic growth and trade, enhancement of communities, the natural environment, and national security.

All of these activities, and many more, are eligible for funding as part of the Federal-aid Highway program. The Transportation Equity Act for the 21st Century confirms the place of bicycling and walking in the mainstream of transportation decision-making at the State and local level and enables communities to encourage more people to bicycle and walk safely.

For More Information

1. The Transportation Equity Act for the 21st Century, PL-105-550. Available from the Government Printing Office or on-line at www.dot.gov.
2. Title 23, United States Code. Available from the Government Printing Office or your local library system.
3. Code of Federal Regulations, Part 652. Available from the Government Printing Office or your local library system.

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