

# SAFE ROUTES TO SCHOOL



## MUNICIPAL IMPLEMENTATION TOOL #14

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Delaware Valley Regional Planning Commission

## INTRODUCTION

#### What Is Safe Routes to School?

Safe Routes to School (SRTS) is a program that encourages and enables children to safely walk or bicycle to school. SRTS promotes a healthy and active lifestyle while reducing traffic, pollution, and fuel consumption, and improving safety in the vicinity of schools.

In 1970, nearly 65% of all children walked or biked to school-compared to less than 15% in 2000. A 2004 survey of adults of school-age children gave a range of factors in their decision to prevent their child from walking to school, including traffic, weather, crime, increasing distance to school and even official school policy. Concurrent with the decline in children walking to school, childhood obesity rates have skyrocketed. Almost 17% of children and teens between the ages of 2 and 19 are considered obese.

SRTS is a program created by special provision of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU). Under this legislation, the federal government allocated \$612 million to the states for SRTS for fiscal years 2005 to 2009. SRTS reimburses programs (does not provide cash up front) for projects that meet federal guidelines. Projects must be approved by the appropriate state Department of Transportation and the Federal Highway Administration before costs may be accrued.



A Walk to School Day offers children and their parents a chance to walk or bicycle to school in a group. SOURCE: www.saferoutesinfo.org

The SRTS program contributes to a number of environmental, community, and individual health goals, including:

- · Increased bicycle, pedestrian, and traffic safety
- · More children walking and bicycling to and from schools
- Improved childhood health and reduced obesity
- Improved air quality and reduced fuel consumption
- Enhanced accessibility
- Improvements to the physical environment

## **Regional Role**

The Delaware Valley Regional Planning Commission (DVRPC) is the Metropolitan Planning Organization (MPO) for the Greater Philadelphia area. DVRPC produces this brochure in support of the region's adopted long-range plan, *Destination 2030*.

The Bicycle and Pedestrian component of *Destination 2030* states goals of doubling the percentage of trips by foot and bicycle while reducing the number of injuries and fatalities suffered by bicyclists and pedestrians by 10% from current levels. The U.S. Department of Transportation shares this goal.

#### **Federal and State Roles**

The Federal SRTS program is administered by the Federal Highway Administration. States can manage and administer their own SRTS program with different policies and requirements. SRTS is a highly competitive program, with demand for funding far exceeding the supply. Unlike some state programs, the federal program does not require a local match. Federal program funds are available for both infrastructure and non-infrastructure projects, although 10-30% percent of funds must go toward non-infrastructure projects. Other funding sources can help bridge crucial gaps between SRTS projects and available program funding.

State policies in both New Jersey and Pennsylvania support the creation of environments that promote bicycling and walking as viable forms of transportation. Both states administer SRTS programs.

New Jersey provides approximately \$15 million in SRTS funding for use in fiscal years 2005 to 2009. In New Jersey, the New Jersey Department of Transportation (NJDOT) administers SRTS. NJDOT applies SRTS funding to Education and Training Programs, Promotion and Support Documentation, and a Competitive Grant Program. In New Jersey, the federal SRTS program works alongside the state program to achieve the stated goals of SRTS.

In Pennsylvania, the new Federal SRTS is administered by the Pennsylvania Department of Transportation (PennDOT). The state has allocated over \$21 million in SRTS funds for use in fiscal years 2005 through 2009. This money does not lapse and is available until the funds are completely spent.

## GATHERING INFORMATION

## **Gathering Information**

Gathering information about student bicycle and pedestrian travel and safety is a crucial first step in planning for safer routes to school. The Pedestrian Road Safety Audit helps a community understand their needs and identify appropriate strategies for improvements. SRTS programs do not focus just on engineering improvements, but also on safety and health issues. The data gathered in the audit process and follow up efforts provides a means to measure program impacts.

A variety of information-gathering approaches are used as part of an SRTS program. Neighborhood walk-abouts or bike-abouts can assist in identifying traffic or safety issues near schools, and can lead to a list of recommendations to improve student routes to school. These activities can involve members of the community including local leaders, planners, and students.



Walk-about or bike-about days are useful tools to help a community determine what measures should be taken to provide safer conditions for pedestrians and bicyclists. SOURCE: www.pedbikeimages.org

Surveys are a useful tool for finding out how students perceive travel to and from school. Take-home parent surveys and in-class tally sheets can yield useful results. Student and parent surveys identify routes and opportunities to promote more frequent or safer trips to school. Schools can conduct follow up surveys to assess the performance of their SRTS program. Surveys of parents can help document key concerns, engage their participation, and identify walking or bicycling routes to school. Surveys and other documents are available at www.saferoutesinfo.org.

The creation of school "route maps" identify the safest and most accessible routes to school for bicyclists and pedestrians. School route maps developed from surveys also help determine locations where engineering treatments, adult crossing guards, and specialized signalization are needed. Schools can adopt a traffic control plan based on these maps to create a balanced road environment near the school.



## **Action Plan**

Once a community has gathered information about challenges and opportunities for improving pedestrian and bicycle routes to school, the next step is to prepare an Action Plan. The Action Plan does not need to be lengthy, but it should describe the specific conditions and issues in the project area, as well as strategies that may be used to make improvements.

When thinking about strategies for an SRTS program, include the 5 E's: encouragement, enforcement, education, engineering, and evaluation strategies. These strategies are described in detail in this brochure.

The Action Plan should also include a time schedule for each strategy, a map of the area covered by the plan, and an explanation of how the program will be evaluated. Strategies that can be implemented early will help the group feel successful and can build momentum and support for long-term activities.

The Action Plan should also include a project budget. Costs for each strategy should be estimated and identified.

Keep in mind that SRTS is a cost reimbursement program. This means that recipients of funds must 1) receive federal authorization to begin their project and then 2) pay for project costs up-front. Reimbursement payments are made after authorization is received and project expenses have been incurred, submitted, and approved for payment. Planning efforts should consider how funding for up-front costs will be obtained.



Engineering should allow for safe street crossings. SOURCE: www.pedbikeimages.org 05

SRTS programs utilize one or more of five strategies known as the Five E's.

#### **Education**

Education activities related to SRTS teach pedestrian, bicyclist, and traffic safety, and create awareness of the benefits and goals of SRTS. Education strategies for SRTS include identifying who needs to receive information, what type of information should be communicated, when education should be delivered, and how messages should be conveyed.

Audiences for SRTS educational initiatives include children, parents, drivers, and neighbors. Communication efforts should consider the needs of families where English is not the first language, families with low incomes, and individuals with disabilities. Students should receive instruction in safety and be educated about the health and environmental benefits of walking and bicycling before they take up these activities. Parent education can influence whether more children walk and bicycle to school in a safe manner. Drivers should be educated to watch for—and yield to—pedestrians and be knowledgeable about traffic laws. Neighbors may also be educated about the importance of leashing pets, keeping sidewalks clear, and keeping an eye on street activity.

#### Enforcement

Enforcement strategies deter unsafe behaviors among drivers, pedestrians, and bicyclists. Enforcement strategies also encourage all road users to obey traffic laws and share the road. Community members should work together to support enforcement strategies, including police officers, crossing guards, school personnel, neighborhood watch programs, students, and parents.

SRTS Action Plans should consider enforcement techniques that require minimal labor or costs. One example is a Neighborhood Speed Watch, which empowers local residents to act as an extra set of eyes for police. Another low-cost enforcement strategy is use of a mobile radar speed trailer, which displays a car's speed as it approaches.

Communities can involve local law enforcement officials in SRTS programs by determining the appropriate policing division to work with, requesting police representation on the SRTS Task Force, and providing law enforcement officers with information about bicycle and pedestrian travel patterns and safety concerns.

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## Engineering

Engineering strategies result in physical changes to roads or pedestrian access ways that improve safety and enable more students to walk or bicycle to school. Some solutions appropriate for engineering strategies include identifying and regulating the school route, slowing down traffic in school zones, providing and maintaining bicycle and pedestrian facilities along the school route, and providing safe crossings for bicyclists and pedestrians.

Four principles should guide the application of engineering solutions in an SRTS program:

- Infrastructure (sidewalks, crosswalks) within the school zone and beyond is a prerequisite for walking and bicycling.
- The relationship of school buildings to sidewalks and street crossings determines the level of comfort and safety a pedestrian or bicyclist experiences.
- Focus first on easy-to-implement and low-cost solutions. Then implement long-term solutions.
- Engineering treatments should be matched to the problem.

#### Encouragement

Encouragement strategies generate excitement and interest about walking and bicycling. They are designed to increase the number of students who walk or bicycle to school. Encouragement strategies can be organized by parents, students, teachers, or community members with very little funding.

Encouragement can take several forms. Special one-time events like a Walk or Roll to School Day can bring attention to the program and do not require much labor or capital. A Mileage Club provides an ongoing way to encourage students to walk or bicycle to school. In a Mileage Club, the collective miles walked to school are tabulated by grade or class as a friendly competition. Walk to School days are a popular way to encourage children to walk to school safely.

## **Evaluation**

Project evaluation is a critical element to determine the safety benefits and behavioral changes derived from a program. Since all SRTS projects are different, evaluation may focus on a number of different factors, including crash data, changes in the perception of safety, the effect of learned safety behaviors among program participants, or increases in awareness of safe walking and bicycling practices.

## Steps to Create an SRTS Program

- 1. Form an SRTS Task Force with involvement from:
  - Parents and students
  - School administrators and teachers
  - Neighbors and community organizations
  - City officials and staff members
- 2. Hold a kick-off meeting:
  - Create a vision
  - Generate next steps
- 3. Gather information and identify issues:
  - Conduct parent and student surveys
  - Obtain traffic and injury data
  - Conduct a Pedestrian Road Safety Audit
- 4. Identify strategies using the 5 E's:
  - Education
  - Encouragement
  - Engineering
  - Enforcement
  - Evaluation
- 5. Make an SRTS Action Plan, including:
  - Time schedule
  - Map of the area
  - Explanation of how program will be evaluated
  - Identify short and long term solutions
  - Cost out program
- 6. Begin implementing plan:
  - Present findings to the community
  - Assess availability of up-front funding
  - Apply for grants
- 7. Evaluate, adjust, and keep going:
  - Monitor performance
  - Adjust program accordingly

## **DVRPC Services**

DVRPC offers a number of services to school districts and municipal governments to support SRTS.

DVRPC conducts Pedestrian Road Safety Audits in cooperation with local stakeholders. A Pedestrian Road Safety Audit is a formal examination of pedestrian conditions. The Pedestrian Road Safety Audit team reviews the streets and intersection conditions in the school area to identify safety issues and suggest measures that can be implemented under time and budget constraints.

For a Pedestrian Road Safety Audit conducted as part of an SRTS project, DVRPC considers a number of factors related to safety and the decision to walk or bicycle to school. These may include visibility of the route to both children and motorists, mental or physical disabilities of student pedestrians and bicyclists, weather-related concerns, safety, comfort, and distance.

A checklist helps the Pedestrian Road Safety Audit team consider factors such as:

- Are the pedestrian and bicycle facilities adequate in the area surrounding the school?
- Is signage near schools adequate and effective?
- Do sidewalks provide direct access from the bus loading area?
- Are drop-off/pick-up lanes separated from bus lanes?
- Are crossings in school zones clearly marked?

DVRPC can also assist with assessments of pedestrian or bicycle level of service (PLOS & BLOS). These assessments help communities determine whether transportation systems located near schools are adequate for current usage. In addition, DVRPC can provide assistance in assembling project stakeholders, such as state Departments of Transportation, county officials, or local community members.



DVRPC can help involve stakeholders including law enforcement officials, students, parents, neighbors, and local leadership to participate in SRTS projects. SOURCE: www.pedbikeimages.org

## LOCAL PROJECTS

## **Local SRTS Projects**

**Burlington County** received federal funding from the New Jersey Division of Highway Traffic Safety to design a high-volume crosswalk between Marcus Newcomb Elementary and Helen Fort Middle School. The schools share facilities and are located on opposite sides of County Route 616, a multi-lane rural roadway on which students and school staff reported difficulty crossing. County engineers installed an in-pavement lighting system to alert motorists to the presence of pedestrians crossing the street. The new system includes lighted, yellow-green signs that flash simultaneously with in-pavement lights that illuminate the crosswalk. Field observation showed an increase in motorists yielding to pedestrians after the crosswalk was installed.



Enhanced crosswalk design in Mount Laurel Township, Burlington County, increases crosswalk visibility and reduces pedestrian/automobile crashes. Source: NJDOT

The **Borough of Doylestown** in Bucks County used PennDOTadministered SRTS funds to repair deteriorating curbs and sidewalks, and to install new curbs and sidewalks where none existed in neighborhoods around area schools. A second phase of the project will connect a number of schools to their surrounding neighborhoods via a multi-use path.

Whitemarsh Township, Montgomery County, received PennDOTadministered funding to improve sidewalks, curbing, crosswalk striping, and overall access to a pedestrian walkway nearby Plymouth-Whitemarsh High School.

**Plymouth Township**, Montgomery County, received PennDOTadministered funds to connect Plymouth Elementary School to the town's existing sidewalk system.

## **Technical Assistance**

**DVRPC**, through its Pedestrian Road Safety Audit Program, generates improvement recommendations and countermeasures to improve the safety of roads. DVRPC can also assist with pedestrian or bicycle level of service assessments and can help involve stakeholders. For more information, visit www.dvrpc.org.

The **National Center for Safe Routes to School** provides research, communication services, and promotional materials. For more information, visit www.saferoutesinfo.org.

**Pennsylvania Advocates for Nutrition and Activity (PANA)** offers training sessions and resource guides to help create safe routes to school and foster more activity among children. Visit PANA online at www.panaonline.org.

The **National Safe Kids Coalition** promotes changes in attitudes, behaviors, laws, and the environment to prevent accidental injury to children. For further details, go to www.safekids.org.

**Transportation Management Associations (TMAs)** can assist in survey analysis and walkability/bikeability assessments. TMAs also offer small grants to municipalities to promote alternatives to the automobile. Find your local TMA at www.dvrpc.org/hotlinks/linktran.htm#tma.

The **New Jersey Bicycle and Pedestrian Resource Center** is a partnership between NJDOT, FHWS, and the Alan M. Voorhees Transportation Center at Rutgers University. The center assists New Jersey residents with creating a safe and more accessible walking and bicycling environment. For more information visit www.njbikeped.org.

#### **State Resources**

To learn more about SRTS in **New Jersey**, visit the NJDOT website at www.state.nj.us/transportation/community/srts.

To learn more about SRTS in **Pennsylvania**, visit the National Center for Safe Routes to School website at www.saferoutesinfo.org. More information specific to Pennsylvania will be available soon.

## SOURCES

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"Success Stories: Burlington Co., New Jersey." New Jersey Department of Transportation. 2005.

Created in 1965, the **Delaware Valley Regional Planning Commission (DVRPC)** is an interstate, inter-county and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.

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