Safe Routes to School—Making a Big Difference Via Small Steps

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This nationwide program is helping reduce traffic congestion while tackling several other societal issues by encouraging children to walk or bicycle to class safely.

The Safe Routes to School program addresses physical activity, environmental pollution, and budget challenges facing schools. This boy and girl enjoy walking to school.

Ever hear someone say, "In my day, I walked to school 5 miles, barefoot, uphill both ways, in the snow . . ."?
Today, schoolchildren do not walk those fabled 5 miles, much less uphill both ways, but they- and their parents-do face modern-day challenges in their trips to and from school: traffic congestion, fuel costs, air pollution, and safety issues, not to mention reduced availability of schoolbus trips.

The Centers for Disease Control and Prevention notes that 30 years ago it was common to see children walking or bicycling to school. Today, according to a study published in the *American Journal of Preventive Medicine*, less than half of the students who live within a mile of school go there even one day a week by walking or bicycling.

A relatively new Federal program, Safe Routes to School (SRTS), addresses several of these challenges through three key goals: encouraging children to walk and bicycle to school; improving their safety along the way; and reducing traffic, fuel consumption, and air pollution near schools—all helping to create livable communities.

In 2005, the U.S. Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Section 1404 of the transportation legislation designates $612 million in Federal transportation funds for the SRTS program. The funds are distributed through each State's department of transportation (DOT). By way of bonus benefits, the program helps address other issues so much in the news: reduced school budgets for purchasing, operating, and maintaining schoolbuses; childhood obesity; and the need for community revitalization.

Nearly 4 years after the passage of SAFETEA-LU, a network of State coordinators, local program leaders, and advocates, coupled with an increasing understanding of what works, is helping the Federal program achieve the goals that Congress intended. Each State DOT administers its own program and develops its own procedures to select projects for Federal funding.

As of April 1, 2009, all 50 States and the District of Columbia were participating in SRTS and had announced a combined total of $355.2 million in Federal funding for State or local SRTS activities. In addition, 5,200 schools were participating, indicating progress in meeting SAFETEA-LU's first two goals of encouraging children to walk or bike to school and getting them there safely. Being a young program, SRTS does not yet have nationwide aggregate data. But the SRTS program collects information on a voluntary basis and has received baseline data from 2,534 schools in 49 States.

"The Safe Routes to School program provides State DOTs with 100 percent Federal aid to increase the safety of the Nation's children and increase the livability of our communities," says Associate Administrator for Safety Joseph S. Toole of the Federal Highway Administration (FHWA). "The program has a lot of flexibility, and States have been very creative in how they use these funds. We know Safe Routes to School projects are reducing traffic congestion, improving infrastructure, and most important, providing our children with a safe route to school."
Certainly, local governments are enthusiastic about the program. "Having children walk to school on safe pathways is beneficial in many ways," says Mayor Jimmy Harris of Brevard, NC, which will soon be constructing a new SRTS trail. "From a health perspective to reducing traffic congestion, children walking to school, as they have for many years, is smart and wise. I cannot find any negatives in children beginning their day by being in the fresh outdoors before sitting for several hours in classrooms."

The SRTS Story

To address the program goals outlined in SAFETEA-LU, FHWA established the SRTS program in 2005 and the National Center for Safe Routes to School (NCSRTS) in 2006. The University of North Carolina Highway Safety Research Center maintains NCSRTS with funding from FHWA. Partners in the program include the American Association of State Highway and Transportation Officials, America Walks, Governors Highway Safety Association®, Institute of Transportation Engineers, and Toole Design Group.

NCSRTS supports the work of State DOTs by serving as a clearinghouse for information on the program. Through a Web site, online resource guide, tip sheets, and listservs, NCSRTS provides technical assistance to the public and SRTS State coordinators. The center also coordinates information sharing among the States, develops training courses to enable communities to implement best practices, and collects data from SRTS programs around the country to help set milestones and evaluate the progress of those programs nationwide. To learn more, visit www.saferoutesinfo.org.

Developing an SRTS Program

Two types of funding for an SRTS program are available. One is for infrastructure projects such as engineering improvements, and the other is for noninfrastructure activities such as education, enforcement, and encouragement programs.

To inform local communities about the program, States use a variety of strategies. The Delaware Department of Transportation (DelDOT), for example, mails information directly to elementary and middle school principals, explains SRTS State Coordinator Sarah Coakley. "We also work with partners such as the Delaware Department of Education's Connections to Learning Partnership Council, Nemours Health and Prevention Services, Sussex Child Health Promotion Coalition, Delaware Division of Public Health, and Delaware Coalition for Injury Prevention to inform stakeholders about the SRTS program and the availability of Federal funding," Coakley says.

A typical framework for establishing an SRTS program at the local level involves the following steps, based on what has worked in a number of communities. The steps are meant to provide guidance, but getting things done may require different approaches or performing the steps in a different order.

1. **Bring together the right people.** Community members with diverse expertise sharing concerns, interests, and knowledge can help with tackling a variety of relevant issues.
2. **Hold a kickoff meeting to establish a vision.** Participants share their vision for the school 5 years in the future.

3. **Gather information and identify issues.** Collecting information can help to identify needed program elements and provide a means to measure the program's impact.

4. **Identify solutions.** Solutions will include a combination of education, encouragement, engineering, and enforcement strategies. Safety is always the first consideration.

5. **Make a plan.** It doesn't need to be lengthy but should include a time schedule.

6. **Get the plan and people moving.** Hold a kickoff event such as a Walking Wednesday or a local adaptation of the International Walk to School Day.

7. **Evaluate, adjust, and keep moving.** To sustain the program, consider encouraging additional program champions and letting people know about your successes.

Deploying a new Federal program in 50 states and the District of Columbia in a short timeframe required different approaches in different States. Some, such as Michigan and California, had previous State funding, training, and guidelines for SRTS-like programs. Most States had to start from scratch.

Florida SRTS State Coordinator Pat Pieratte says, "We opened the first call for applications in November 2006. FDOT [Florida Department of Transportation] works on a 5-year work program, so we attempted to award as much of the 5-year allocation of SRTS funds as possible with the first call for applications. SRTS contacts at our seven districts helped spread the word about the new program." The third call for applications closed April 2009.

Part of the strength of SRTS is its adaptability to communities of all sizes, including those with limited resources. As the following sampling shows, a number of communities have embraced SRTS to improve the lives of their schoolchildren and adults.

"Walking Schoolbuses" In Vermont

Green Street School is located within a quarter-mile of downtown Brattleboro, a town of 8,160 in southern Vermont. The school has 268 students from kindergarten through sixth grade. Approximately 200 of the students live within a 2-mile (3-kilometer) radius of the school. Parents' primary safety concerns were the traffic speed and volume on Green Street.

In 2006, Green Street School received an $18,000 Federal SRTS grant and in 2008 another $6,975 grant through the Vermont Agency of Transportation (VTrans), with both allocated for noninfrastructure activities.

**Economic Development for Small Communities**

Brevard, NC, a town of 6,700 in the Appalachian Mountains, is building a Safe
Routes to School (SRTS) walking and bicycling path to connect two of its schools with densely populated residential neighborhoods. Thanks to a unified front by the city council and staff, plus a deliberate effort to build an effective relationship with the North Carolina Department of Transportation (NCDOT), Brevard has overcome economic adversity to begin creating a safe, pedestrian-friendly community.

The town's major employers-three manufacturing companies-all closed down within the past decade. Mayor Jimmy Harris says, "At one point, Brevard had North Carolina's highest unemployment rate." Despite this calamity, the city council adopted a comprehensive pedestrian plan in 2006, which included expansion of the sidewalk system plus existing hiking/biking paths to connect downtown with nearby Pisgah National Forest. The system also will connect the town's schools and its two colleges.

The goal was to increase safety for schoolchildren, students, retirees, and young families, while enhancing the community's quality of life and thereby attracting new economic development. After constructing the first three segments, the town turned to the SRTS program. "On a practical level," says Brevard Planning Director Josh Freeman, "SRTS opened funding doors. Also, we have miles and miles of proposed sidewalks; the program gave us a useful way of thinking about priorities."

The next priority for the pedestrian infrastructure is a 1-mile (1.6-kilometer) asphalt path to connect two schools, public housing, a medical clinic, a boys and girls club, and the existing sidewalk system. The total cost is $650,000, representing $350,000 allocated from the city's capital reserve, a $250,000 SRTS grant from NCDOT, and $50,000 that the city raised by selling engraved brick pavers at $100 each. The pavers will be set in an amenity area of the path featuring benches and a water fountain.

Then came a snag: To avoid the possibility of worsening flooding conditions at two stream crossings, engineering changes were needed to guard against a potential rise in flood levels. The redesign employs extended culverts and an exception to move the path closer to the road. Ultimately, NCDOT accepted an encroachment agreement for the path relocation.

"The lesson learned for me," says Freeman, "is we waited too long to engage NCDOT in the review process." He recommends that communities allow 2 to 3 years in total, including 12 months for obtaining funding through the local council's budget cycle, 6 to 12 months for design, and 6 months for construction. Now that the encroachment agreement is almost finalized, Freeman hopes to begin construction shortly after school starts in fall 2009.

Mayor Harris says, "We're not necessarily doing this for economic development, but we're glad for job growth if that's a byproduct. We're doing this because it's the right thing to do. We've got community support, and we have support from the State. The timing is right. And this is a win-win for our community. We're building it one
paver at a time."

Isabelle (5) and Hazel (9) and their mother Sara Freeman stroll on one of the trails in Brevard, NC, that will eventually connect through a sidewalk and path system with the new trail that will be constructed in part with SRTS funds.

-Alice Charkes, the SRTS coordinator for the elementary school and a high school French teacher, worked with a graphic designer to develop newspaper advertisements to remind motorists to "Please drive the speed limit" and "Stop for pedestrians in crosswalks." Additional ads remind homeowners and other residents to shovel sidewalks and trim hedges along the SRTS route. The SRTS program, the Safe Kids Coalition, and the Brattleboro Area Bicycle and Pedestrian Coalition funded the ads.

-Norah Davis, Editor of Public Roads
Students at the elementary school can walk to school more safely after the school's SRTS program achieved a 40 percent reduction in the number of cars that speed in the school zone, according to traffic data from the Windham Regional Commission.

In the morning, speeding cars decreased from 59 percent to 21 percent. In the afternoon, the numbers went slightly up from 33 percent to 37 percent.

In addition, the school established "walking schoolbuses," which are groups of children accompanied by adults for the walk to and from school. The group picks up students as it passes by their homes or a central meeting place. The number of walking schoolbuses increased steadily, tripling from 3 in 2006 to 11 in 2008.

When the school received the first grant, 25 parents immediately volunteered for the school's SRTS program and regularly led walking schoolbuses, rode bicycles to school with their children, and handed out "I walked/biked to school today!" stickers at the school doorway.

Other aspects of the program include Walking and Wheeling Wednesdays, which promote use of the SRTS route 1 day a week. In fall 2008, this promotion saw a 100 percent increase in participation, plus creation of a Winter Walkers club.

Charkes believes that the timing of the school's 2006 SRTS grant coincided with a willingness to change. "I think the school was at a stage where it was ready," she says, adding that now SRTS is considered an integral part of how the school works.

For one thing, SRTS is integrated into the school's Finding Fitness Fundraiser, which challenges students to raise their fitness levels over the course of 4 weeks each fall, as well as several other health initiatives. The program also was linked to the school's TV/Screen Turn-Off Week, during which the school hosted a bicycling/walking event for one night. Participation in International Walk to School Day grew from 133 students in 2006 to 215 in 2008.
These students are walking to school on a snowy morning. In addition to making physical improvements, many participating schools are reinforcing safe walking and bicycling behavior through classroom lessons and skills practice.

Charkes measures progress with class tallies, parent surveys, punch cards, and participant counts. She says that progress comes from one parent and one child at a time, and that those incremental increases add up. In the first year of the program, Charkes taught a bicycle safety curriculum titled "Bike Smart! Youth Bicycle Safety Program" and held bicycle rodeos where children practice basic bicycling techniques. Her workshops reached 150 children, or 60 percent of the students at Green Street School. The second year, she added WalkSmart! Active Schools lessons and reached 90 percent of the student population.

Green Street School's SRTS team consists of the school principal, staff, the Parent Teacher Organization, the head crossing guard, the Brattleboro Department of Public Works director, the police department, and a Windham Regional Commission planner. Other support has come from Brattleboro Memorial Hospital and the Vermont Bicycle & Pedestrian Coalition. Charkes communicates regularly with the town manager, the selectboard, the traffic safety committee, and State legislators.

**Safety for Students In Delaware**

Three elementary schools in Smyrna, DE, are participating in SRTS: Smyrna Elementary, Clayton Elementary, and North Smyrna Elementary, where 42 percent of the students come from low-income families. DelDOT awarded the school district and the town of Smyrna $523,000 in Federal SRTS funds in 2007-2008 for sidewalks, crosswalks, and curb construction, plus educational programs at the three schools.
The Federal SRTS program devotes 70 to 90 percent of funds to infrastructure improvements and 10 to 30 percent on noninfrastructure activities such as strategies to encourage students like these to walk to school.

Thanks to collaboration between the school district, the town, and DelDOT, the improvements adjacent to North Smyrna Elementary were completed in 6 weeks, with most of the work finished before school began in August 2008. DelDOT streamlines the implementation process by administering all SRTS projects on behalf of sponsors.

"These improvements enhance safety for students who walk or bicycle by encouraging them to use safer crossings where traffic control devices are located, by completing gaps in the routes to school, by making routes accessible, and by increasing driver awareness of school routes and the presence of children," says Deborah Wicks, superintendent of the Smyrna School District.

In addition to the physical improvements, the schools reinforce walking and bicycling safely to school through classroom lessons and positive behavior support, plus posting rules for students and communicating those rules to parents via newsletters and orientations. In addition, the physical education teachers involve students in an All Children Exercise Simultaneously initiative, walks around the schools, International Walk to School Day, instruction on how to use pedometers, and lessons on the health benefits of walking and bicycling.

**Car-Free Commuting In Colorado**

By the second year of the Car-Free Commute program at Bear Creek Elementary School in Boulder, CO, 70 percent of students walked and bicycled to school consistently throughout the school year. At the onset of Federal funding, a student tally showed 41 percent walking or bicycling to school.
Bear Creek Elementary School was the recipient of the James L. Oberstar Safe Routes to School Award in 2008. The award is a tribute to Oberstar's sponsorship of the SRTS legislation in 2005 and is given annually by the NCSRTS to exemplary SRTS programs.

These students and parents are walking to school. Early SRTS successes show increases in walking and bicycling, reduced traffic around schools, and savings in school transportation costs. Since then, increased parent involvement, strong school leadership, and a portion of $36,000 in SRTS funds shared with two other schools have helped encourage nearly 75 percent of the school's 365 students to make walking and bicycling a part of their daily routines. In 2007, the Colorado Department of Transportation awarded another $73,448 in SRTS funds for encouragement programs at six schools.

Principal Kent Cruger serves as a role model for his students by hosting the Cruger Cup, a yearlong challenge to his students to arrive at school every day without a car. At the beginning of each month, the principal tries a new form of transportation such as a foot-powered scooter, a skateboard, or a unicycle, and he regularly carpool with other area principals to school district meetings.
"Although this initiative was initially adult-driven, it has been the students who have taken ownership of their own travel choices and inspired the adults around them," says Cruger.

At the school district's request, the city of Boulder conducted traffic counts during the first year of Bear Creek's Car-Free Commute program. The city counts showed a 30 percent reduction in cars and corresponding traffic congestion near the school. Through school travel tallies, students accrued 4,800 miles (7,725 kilometers) from 6,600 Car-Free Commute trips in September 2008 alone.

The school's culture is changing from motor-powered to foot-powered transportation. In parent surveys about the Car-Free Commute program, they said, "My daughter does not want to miss a day!" or "My son refuses to take the car." Students are inspired by the example set by the adults, and adults are encouraged by their children into choosing Car-Free Commute.

"We are trying to create a new culture of daily car-free habits in this young generation," concludes Vivian Kennedy, a parent volunteer.

**Washington State: Saving Transportation Dollars**

In 1995, the Auburn School District, in Auburn, WA, linked concerns about the high cost of pupil transportation and increased childhood obesity. The result was cooperation that led to 20 percent of the district's students walking to school. With a 2006 SRTS infrastructure grant of $121,770 from the Washington State Department of Transportation, Auburn partnered with its school district to build sidewalks and bike lanes. The school district also received an $185,000 Federal SRTS infrastructure grant for Olympic Middle School to remedy safety concerns along a heavily traveled road.

The Safe Routes to School program aims to make routes safer for children like these to walk and bicycle to school and to
encourage more safe walking and bicycling.

With these infrastructure grants, the school district has worked to increase physical activity among students. At Pioneer Elementary School, bus use has decreased from six buses to one, and 85 percent of children walk or bike to school. Jim Denton, director of transportation for the Auburn School District for 12 years, says, "We're saving $220,000 in transportation costs every year because of these kids. Not only is it working, this program is standing the test of time. Each school is finding more and more ways to participate."

He attributes the program's success to the partnerships in the school district, where 14,500 students come from 4 county schools and 19 schools in 3 towns-Auburn, Algona, and Pacific. The Auburn School District Transportation Department's partnership approach to the SRTS program was declared a Top 50 Program by the 2008 Innovations in American Government Awards competition, administered by the Ash Institute for Democratic Governance and Innovation at Harvard University's John F. Kennedy School of Government.

An added benefit has been improved academic achievement at Pioneer Elementary where students achieved the highest scores in the district. According to Denton, Principal Debra Gary attributes part of that gain to the health benefits of walking and bicycling to school.

**Montana: A Renewed Sense of Community**

In 2004, the Mean Streets report by the Surface Transportation Policy Project identified Billings as the least safe city for pedestrians in Montana. Parent volunteer and community health advocate Kathy Aragon decided to do something about it. As chair of the safety committee at the Highland Elementary School Parent Teacher Association, she helped institute the Go Play Billings Trails community awareness campaign.

"It's all about community awareness," says Aragon. "We have an enormous amount of collaboration."

This noninfrastructure program began in 2006 when St. Vincent Healthcare donated $5,000 to enable students from Montana State University Billings (MSUB) to develop a brochure that encourages safe walking and bicycling. Sarah Keller, assistant professor in the Department of Communication and Theatre at MSUB, codirected the effort with Aragon.

Project goals included increasing community support for construction of sidewalks, trails, bike lanes, and greenways. Additional objectives included motivating people to use these improvements, increasing pedestrian safety, and increasing the perceived benefits of walking and bicycling.

In March 2007, the Montana Department of Transportation granted $10,000 in Federal SRTS funds to the Go Play initiative. The campaign linked to nonprofit Web sites and provided information at community presentations and at a 6-mile (9.7-kilometer)-long Magic City Trail Trek and a 2-mile (3-kilometer)-long Saturday Live Fun Run/Walk, a school district fundraiser.
Building the bicycle safety skills of students is a part of many local SRTS programs. Here, a mother is adjusting a child's helmet.

What's It All Add Up To?

Although each State is at a different stage of implementation, the fact that more than 5,200 schools in all 50 States are participating and $355.2 million in Federal funds have been committed to projects attests to the nationwide reach of the SRTS program.

In July 2008, the National Safe Routes to School Task Force, a federally chartered national advisory committee established by SAFETEA-LU, provided recommendations to the U.S. Department of Transportation (USDOT) and Congress for advancing the SRTS program nationwide. The task force, which is composed of experts in transportation, local government, health, and education, provided five strategies for advancing SRTS.

"We know there are other indicators of success, including increased levels of physical activity, reduced traffic congestion, and improved air quality," says Donna Smallwood, AICP, chair of the national task force and program operations manager at MassRIDES in Boston. "That's why we recommended that USDOT work with partner agencies dealing with health, education, and the environment to develop appropriate outcome measures."

NCSRTS, which focuses on measuring the program's success via a database, has received before-and-after data that includes 34,000 student tallies with trip-to-school information and 180,000 parent surveys recording their opinions on walking and bicycling to school. FHWA will use information obtained through the national database to determine the effect of SRTS programs on school-based travel habits and safety.
"The national SRTS program is built on a solid foundation of training and data collection," says Lauren Marchetti, NCSRTS director and a task force member. "Although it is too early to evaluate the majority of the funded programs, early successes show increases in walking and bicycling, reduced traffic around schools, and savings in school transportation costs. Some programs are looking at environmental and health outcomes as well."

**A Prescription for Health in Florida**

When Dr. Toni Moody was looking for a prescription for holistic health in Orange County, FL, she looked to increase physical activity by combining SRTS with the U.S. Department of Agriculture's (USDA) Florida Team Nutrition. The result was the Step Up to School WellnessTM Team Nutrition Challenge. In addition, Orange County School District, the 11th largest in the Nation, requires that each school form a Healthy Schools team.

Moody, founder of the nonprofit organization Health Masters Club, reached out to SRTS as the physical activity component of health promotion among schoolchildren. Four schools in the program have increased walking and bicycling.

"A key factor in the success of our program was establishing linkages with the Florida Department of Health and Orange County Health Department to promote Safe Routes to School as a gateway to making communities healthier," says Moody.

With $50,000 in SRTS Federal funds, four schools began a comprehensive educational campaign to promote physical activity among students and obtain parents’ support for walking and bicycling to school. Activities include Parent Teacher Association presentations, letters to families from principals, Wellness Wednesdays on Wheels, a 10-day countdown to Walk to School Day, safety lessons for students and options for parents such as park and walk and walking schoolbuses. Second and fourth graders received a ten-lesson safety curriculum. A community partner provided bike helmets for every student who completed a bike safety and helmet-fitting module. Healthy Schools team teachers received minigrants from the Health Masters Club for course and substitute teacher fees to become certified in the Florida Elementary Traffic and Bicycle Safety Education Program.

Crossing guards and student tallies compiled by the NCSRTS help track students who walk or bicycle to school, with Ivey Lane Elementary School showing a 37 percent increase in participation during the program's first year. The number of Orange County schools participating in the Team Nutrition challenge has tripled, according to Moody. But the success of those schools depends on the SRTS component to offer a holistic approach combining exercise with nutrition.

"The mission of the SRTS program complements those of Team Nutrition," says Moody. "It was a good fit to incorporate and promote the healthy eating message along with the importance of physical activity by walking and biking to school."
A mother walks her child home from school. Although the main focus of the SRTS program is on safety and promotion of walking and bicycling, the program also strives to reduce traffic, fuel consumption, and air pollution near primary and middle schools. Photo: Tamara Lackey.

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To learn more about SRTS and read additional case studies, visit www.saferoutesinfo.org/case_studies. Or contact Rebecca Crowe at rebecca.crowe@dot.gov or 804-775-3381.