

Getting Results: SRTS Programs That Reduce Speeding and Distracted Driving



Communities initiate Safe Routes to School (SRTS) programs for a variety of reasons, with safety always a primary concern. In an attempt to reduce safety barriers for students to walk and bicycle to school, some programs find that they need to address dangerous driving behavior around schools, such as speeding, not yielding to pedestrians or using a cell phone while driving.

This brief looks at the problem of dangerous driving behaviors, provides an overview of local programs that addressed speed and distraction-related behaviors and quantified their improvements, and outlines steps that local SRTS programs can take to measure impacts of their activities.

What's the Problem?

Unsafe driving behaviors put pedestrians and bicyclists at risk. Research indicates that the probability and severity of a crash taking place are strongly influenced by vehicle speed and driver attention. Speed affects the likelihood that a driver sees a bicyclist or pedestrian, the braking distance required to stop and the seriousness of a pedestrian or bicyclist's injuries if a crash occurs.¹ Distracted driving, which includes driving while talking on the phone, texting or engaging in any non-driving activity, draws driver attention off the road and lengthens reaction time.²



Mixing speeding or distracted driving with the presence of child pedestrians and bicyclists poses even greater risk because children are often difficult to see due to their size and tendency towards unpredictable behavior. Parents sense that risk, too. According to a 2010 National Center for Safe Routes to School review of over 100,000 parent surveys collected from schools around the United States, fear of traffic speed and traffic safety often impacts whether parents allow their children to walk or bicycle to school.

Fifty-five percent of parents who reported not allowing their children to walk or bicycle to school identified traffic speed as a significant reason in their decision-making process. Forty-eight percent of parents identified intersection and crossing safety as reasons, both of which can be negatively influenced by distracted driving and decreased driver reaction time.³

Location	Results
Brattleboro, VT: Green Street Elementary	Reduced percent of speeding cars from 59% to 21%
Greenville, NC: C.C. Eppes Middle School	Reduced percent of distracted drivers from 20% to 17%
Rockville, MD: City of Rockville Schools	Installed 16 cameras in school zones
Washington, DC: DC Neighborhood Pace Car Program	Obtained 800 signed Pace Car program pledges
Alexandria, VA: Alexandria Public Schools	Reduced speed limits in two school zones.

Communities Are Making Improvements

There are a number of activities being implemented by SRTS programs as part of efforts to reduce dangerous driving behavior. Activities include installing or upgrading pedestrian and bicycle infrastructure, enforcing speed and distracted driving laws and conducting public information campaigns.

Evaluation and measurement play a critical role in helping programs understand the barriers to students walking and bicycling to school and the outcomes associated with their SRTS activities. The programs on the following pages determined that dangerous driving behaviors were a safety concern, used strategies to address the problem and were able to quantify progress towards their goals. The first two programs directly measured speeding and distracted driving behaviors. The subsequent three programs achieved tangible milestones towards changing these behaviors.



Success Stories



Brattleboro, Vermont: Green Street Elementary

The majority of students attending the Green Street School in downtown Brattleboro live within two miles of the school. In a 2006 baseline survey, parents expressed concern with traffic speed around the school. In response, the Green Street School implemented a comprehensive approach to the issue that involved a marketing campaign, student and parent safety education, encouragement activities and program evaluation. From the outset, the school played a leadership role, identifying a SRTS coordinator and establishing a team of community partners.

The school also used BikeSmart and WalkSmart lesson plans to teach students safe ways to walk and bicycle. Parents took an active role in leading the growth of Green Street's popular walking school buses from three in 2006 to 11 in 2008. The school's SRTS coordinator also worked to educate and encourage Brattleboro's drivers to reduce their speeds through ads in local newspapers. The ads also reminded homeowners to shovel their sidewalks in the winter and trim their hedges in the spring to help keep sidewalks clear for walking. A combination of these efforts helped Green Street Elementary reduce the percentage of speeding cars around the school between 7:00 am and 9:00 am from 59% in 2006 to 21% in 2008. The school received approximately \$25,000 in Federal SRTS funding through the Vermont Agency of Transportation in 2006.

Greenville, North Carolina: C.M. Eppes Middle School

C. M. Eppes Middle School, with 550 students, is located in Pitt County, NC. Parents surveyed at a PTA meeting identified a lack of sidewalks, vehicle speed and distracted driving behaviors as concerns for the children walking and bicycling to school. In partnership with Safe Kids USA, the Eastern Carolina Injury Prevention Program and the Pitt County Walk this Way Pedestrian Safety Task Force, the school started a SRTS program that included pedestrian safety education and the use of photography to document unsafe walking conditions.

The SRTS program also participated in a distracted driving research project in which adult volunteers observed distracted driving behavior during student arrival and departure times. In an effort to improve driver behavior, the school installed speed feedback signs, created a neighborhood speed watch program and increased law enforcement before and after school. C.M. Eppes measured a reduction in the percentage of distracted drivers in its school zone from 20% to 17%. These projects were made possible with \$20,000 in Federal SRTS funding awarded by the North Carolina Department of Transportation.



Rockville, Maryland: City of Rockville Schools

The City of Rockville has a strong Safe Routes to School presence in nearly all of its elementary and middle schools. In addition to education and engineering program elements, such as safety classes for students and sidewalk repairs, the Rockville SRTS program partnered with the Rockville City Police Department to increase enforcement of speeding and failing to yield at crosswalks in school zones. The aim of the program was to improve child pedestrian and bicyclist safety near schools.

Sixteen speed cameras were installed in school walk zones to record drivers' speeds and in cases of speeding, automatically mail tickets to offenders. In order to further slow traffic, active speed monitors, flashing beacon signs and traffic calming devices were installed. According to Rockville Police, this system reduced traffic volume around schools as local drivers avoided these school zones all together. These improvements were supported with \$435,000 in Federal SRTS funding awarded by the Maryland Department of Transportation in 2007.



Washington, DC: DC Neighborhood Pace Car Program

The Washington Area Bicyclist Association (WABA) started the DC Neighborhood Pace Car Program in order to reduce speeding and make walking to school safer for DC area children. By signing the Pace Car pledge, parent participants committed to driving the speed limit in neighborhoods and school zones and placed a DC Pace Car sticker on their vehicles, thereby setting the "pace" for a higher standard of safety for themselves and for other drivers.

Beginning as a pilot program and friendly competition among three schools in District Ward 3 that all had traffic and speeding issues, the winning school had over 50% parent participation. Combined, the three schools obtained over 800 DC Pace Car pledges. The program grew to include fifteen actively participating schools. In order to implement their Pace Car program, WABA used \$15,000 of their 2006 Federal SRTS funds obtained through the DC Department of Transportation.

Alexandria, Virginia: Alexandria City Public Schools

The City of Alexandria is a dense suburb of Washington, DC with more than 128,000 residents living in its 15 square mile area. In 2007, as part of efforts to make walking and bicycling safer for Alexandria's children, the city allowed participating SRTS schools to request a decrease in school zone speed limits from 20 mph to 15 mph, and two schools took advantage of the opportunity.

This reduction in speed limit accompanied new infrastructure improvements, including the installation of sidewalks, speed tables, and bicycle lanes, in an effort to increase safety. Pedestrian and bicycle safety education have been part of the school district's curriculum for many years, and annual encouragement activities allow students to earn prizes for walking and bicycling. In addition to funds from the city's budget, Alexandria received \$500,000 in Federal SRTS funding from the Virginia Department of Transportation for infrastructure improvements.



How to Measure Speed and Driver Distraction

Measuring the impacts of SRTS activities can help a local SRTS program evaluate its work, identify needed improvements, pursue additional funding or even market its efforts. For programs that aim to reduce the number of speeding or distracted drivers near the school during arrival and dismissal times, a simple way to gauge impact is to take an initial measurement of the targeted behavior before any strategies are implemented and then repeat the measurement after efforts are underway.

Sometimes it is not possible to directly measure behavior because it is not practical or there are no resources to do so. In these instances, another way to monitor progress is to document interim milestones that will likely influence driver behavior, such as new traffic calming measures.

Naturally, it's important to consider additional factors that may have contributed to results, like speeding enforcement unrelated to the SRTS program. SRTS programs described on the previous pages used a variety of straightforward methods that condense into three steps:

1. Before taking any action to address dangerous driving, measure the current behavior.

Speeding can be measured using radar devices or electronic traffic counters, which may be sensors embedded in the roadway or rubber tubes that lie across the roadway. While some law enforcement agencies have community radar lending programs, many do not. Either way, law enforcement will likely be important partners for this kind of measurement. Driver behavior can be measured through observation, such as counting the number of drivers that completely stop at stop signs and the number that yield at crosswalks. Older students can help conduct observations and summarize the results.

2. Conduct activities intended to reduce speeding, driving distracted or another dangerous behavior. The National Center for Safe Routes to School's SRTS Guide contains a broad range of examples of education, encouragement, enforcement and engineering solutions. Available at: <http://guide.saferoutesinfo.org>.

3. Repeat the count method used in Step 1 while reduction activities are underway and, if possible, at a logical end-point like the end of a school semester or after the completion of an infrastructure improvement. Compare the measurements and look for differences.



Conclusion

Speeding, distracted driving and other dangerous driver behaviors around schools can adversely impact safety for children walking and bicycling to school and influence parent decisions about how children will get between home and school. As demonstrated by the examples provided in the previous pages, SRTS programs can play a role in reducing dangerous driving near schools. Measuring the targeted behaviors before implementing SRTS activities allows a program to track its progress towards impacting the problem.

For more information on program evaluation, see the SRTS Evaluation Guide at: <http://guide.saferoutesinfo.org/evaluation/index.cfm>.

For additional SRTS program success stories on a variety of topics, visit: www.saferoutesinfo.org/data-central/success-stories.

¹ U.K. Department of Transportation (1987). Killing Speed and Saving Lives.

² National Highway Traffic Safety Administration (2010). Traffic Safety Facts: Distracted Driving 2009.

³ The National Center for Safe Routes to School (2010). Safe Routes to School Travel Data: A Look at Baseline Results from Parent Surveys and Student Travel Tallies.