

**Pedestrian and bicycle facilities for children – A need for training transportation professionals**

WSDOT offers technical assistance and training to support agencies and organizations interested in Safe Routes to school. In 2012, 186 participants registered for the Safe Routes to School Overview Webinar resulting in an even greater response to 2012 call for projects. The WSDOT SRTS Website provides a variety of information and links to educational resources specific to pedestrian and bicycle improvements for children but more is needed.

Providing safe pedestrian and bicycle facilities for children presents a unique challenge. Children have developmental differences that affect their ability to navigate traffic safely. In addition to their smaller size, children do not have the same peripheral vision that adults have, they are less able to determine the direction of sound and anticipate vehicle speeds, they have limited reasoning and judgment abilities and are in general less focused then adults. All of these differences must be considered when working to make the route to school safe for students walking and biking. There is a need for transportation professionals to have continued access to training opportunities and information that takes these considerations into account. Different road conditions and situations call for different solutions to address these needs (Schools as Centers of Community: A Guide For Planning and Design, NCEF, 2003.)

**Why walking and biking to school?**

- Biking and walking to school helps school districts to reduce transportation costs and maximizes limited resources.
- Children who get daily physical activity such as walking or biking to school are more likely to perform better at school both socially and scholastically (Viadero 2008).
- In 2008, more than one third of children and adolescents were overweight or obese. (Centers for Disease Control 2012).
- The percentage of children aged 6–11 years in the United States who were obese increased from 7% in 1980 to nearly 20% in 2008. Similarly, the percentage of adolescents aged 12–19 years who were obese increased from 5% to 18% over the same period. (Centers for Disease Control 2012).
- Some communities experience a 25% increase in traffic congestion and related emissions at the beginning and end of the school day which creates conflict problems for the school bus drivers and the students walking and biking. (Parisi Associates 2003).
- Pedestrian related injuries among 16-19 year olds increased 25% over the last 5 years. (Safe Kids-Pedestrian Safety By the Numbers, 2012)

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# Highways & Local Programs

## Safe Routes to School



**Washington’s Safe Routes to School program increases the number of children walking and biking to school safely. The program has successfully improved conditions for biking and walking, reduced congestion around schools, and improved air quality. It has also provided cities, counties, schools, school districts and state agencies with school walk route planning assistance, mapping services, Safe Routes to School training, and design assistance.**



## What has been achieved?

Since its inception in 2005, Washington’s Safe Routes to School has awarded approximately \$32 million to 96 projects from almost \$200 million in requests. These projects have reached 177 schools which are making walking and biking conditions safer for over 70,000 children.

Seventy percent of the projects that were awarded between 2005 and 2009 have been completed. At schools with completed projects the number of children biking and walking has increased by over 20 percent. There has also been a measured increase in pedestrian and bicycle facilities, adding 75,000 feet of new sidewalks near schools, and a reduction in motorist speeds and traffic citations. No collisions involving bicyclists or pedestrians have been recorded at these locations after project completion. At the national level pedestrian injuries to children between the ages of 5 and 9 has decreased by 34 percent in the last five years compared to the previous five years.

The program is funded by both state and federal funds. With the passage of the 2012 Federal Transportation Act, Safe Routes to School projects are now an eligible expense under the Transportation Alternatives Program. The MAP-21 changes were made to provide states with more flexibility to distribute funding based on need.

## Why do we still need to do more?

Overall, the program has been successful; but, more remains to be done. Between January 2010 and December 2011, there were 1,010 bicycle and pedestrian collisions involving children ages 5 to 19 years old. Of those 14 percent or 145 were fatal or serious injury collisions.

Traffic congestion near schools continues to be a problem. It’s estimated that trips by parents and caregivers taking children to school account for about 10 to 14 percent of all rush hour traffic. Even some children that live within one mile of their school are regularly driven to school. In Washington, about half of the children enrolled in the public school system live within one mile of their school. If Washington returned to the 1969 level of walking and bicycling to school, it would translate to an annual savings of 28,000 tons of carbon dioxide, the equivalent of taking more than 5,000 cars off the road a year.

## Improving safe routes to schools in Washington

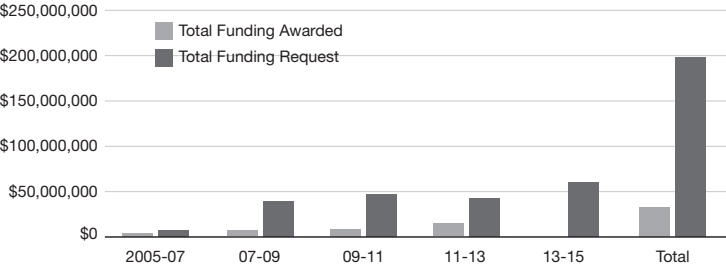
The most critical needs to improve safety near schools, based on WSDOT analysis includes:

- Improved planning for school related transportation with an emphasis on safety;
- Continued resources for pedestrian and bicycle infrastructure improvements targeting safety and congestion relief near schools;
- More flexibility in school transportation spending;
- Continued pedestrian and bicycle safety training for students.

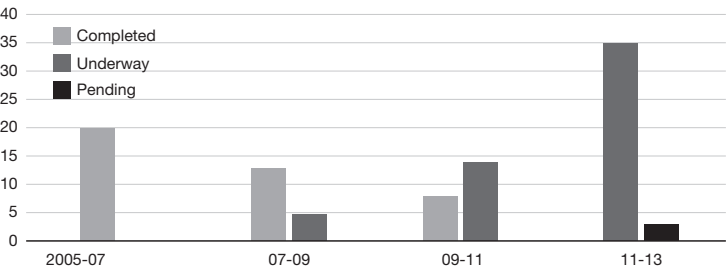
## Improve planning for safer routes to schools

There are 295 school districts in Washington State. The school districts are usually responsible for school administrative services specific to student transportation that includes the administration of

## Safe Routes to School funding requested and awarded



## Safe Routes to School project status



## Barriers to Safe Routes to School in Washington

**Limited Planning** – Few schools or school districts produce plans that identify projects that would improve conditions for biking and walking. Many cities do not include the level of detail necessary to address these needs in their transportation plans.

**Performance Measures** – Washington State lacks a statewide survey mechanism to measure student transportation to and from school other than by school bus.

**Training** – Many transportation professionals do not have access to training in safety, design, and traffic operations specific to children walking and biking, for schools and school zones.

**Technical Assistance** – Schools in Washington are required to produce school walk route maps to help families find the best routes to schools. However, many schools and school districts are not equipped to develop this information and WSDOT’s technical assistance services are overwhelmed with requests.

**Funding** – Funding priorities in Washington limit available resources for safety improvements needed to improve conditions near schools.

school bus funding, maintaining school buses/facilities, managing school bus driver staff and coordinating school bus services for the schools in the district. School district transportation plans, which typically focus on school bus services, are only available through the individual school districts.

School Districts and some schools support children that live with-in one mile of school by providing school walk route maps with recommended walk routes to school. Approximately, 180 or 60 percent of all school districts have reported having or are creating school walk route plans for their students with assistance from WSDOT.

## Infrastructure improvements for safety and traffic congestion

The Safe Routes to School Program funds cities, counties, schools and school districts to construct bicycle and pedestrian infrastructure improvements near schools. Each year, interest in this program grows. In 2005 there were 42 applications submitted by cities, counties and schools requesting \$7 million dollars to improve safety near schools through engineering, education, enforcement and encouragement programs. In 2012 there were 124 applications requesting over \$60 million. All together there has been over \$200 million in requests for the SRTS program. Only 16 percent of that need has been met.

## More flexibility in school transportation spending

Today, there are approximately 1,030,000 students enrolled in about 2,300 schools across Washington. They create a transportation demand that is now addressed in large part through parents driving children to school. There are state funds available to school districts to pay for school bus services for children that live more than a one mile road distance from their school.

In 2011, school bussing cost the state and school districts \$400 million. The state legislature dedicated \$260 million and school districts paid \$140 million. Approximately, 100,000 students living with-in a one mile radius of their school were bused to school. In spite of substantial spending for school busing, traffic congestion attributed to parents driving students to school and traffic collisions remain a problem.

There are several reasons for schools to encourage walking and biking to school for children who live with-in one mile of the school including:

- reduce transportation costs,
- help to reduce traffic congestion and related air pollution near schools, and
- improve the health of our children.

## Continued pedestrian and bicycle safety training for students

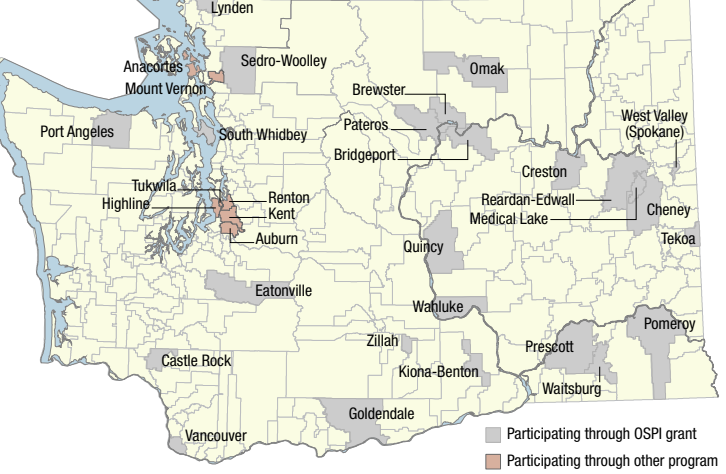
Pedestrian and bicycle infrastructure is best used in combination with education and enforcement programs that give students the skills they need to allow for all users to share the road safely. In 2010, the Safe Routes to School (SRTS) Program funded a statewide effort called the Bicycle and Pedestrian Safety Education Program. It was a two-year, train the trainer program that trained over 120 teachers at 32 schools across the state (see map below) to provide bicycle and pedestrian safety education skills during their physical education classes. By the spring of 2012, these teachers have trained over 10,000 students in grades 5 through 8 in bicycle and pedestrian safety using a consistent and proven effective training method. Many more schools have requested this teacher training, but additional resources are needed to continue.

## Cost savings for WA communities

Washington’s Safe Routes to School program has resulted in savings for schools. At the Auburn School District for example the program improved safety for approximately 2,800 children in the district who live within walking distance from their schools and no longer need to be bused. The resulting reductions in school bus services are saving the Auburn School District a total of \$240,000 each year in personnel and fuel costs.

## Participating school districts in Washington state

Bike and Pedestrian Safety Education Program; 2010-2012



## What did school teachers have to say...

- “I loved this program. It is a permanent part of my curriculum.”
- “The program allowed students to develop an applied knowledge of bicycle and pedestrian safety by modeling correct behavior on the roadway.”
- “The lessons are appropriate and fun for the students.”
- “I was able to see students in fifth and sixth grade who had never been given the opportunity to ride a bike be able to ride at the end of the unit.”
- “Some of my kids decided they were going to ride their bikes to school every day! This idea has spread...”
- “Love the growth! We did not have enough bike racks for all of the bikes those past two years. We had bikes parked out on the lawn surrounding the school.”

## What did school administrators say...

- “active, real life experience under supervision of trained instructors”
- “the program has clearly decreased the risk in our area”