



Safe Routes to School: Helping Communities Save Lives and Dollars

The Safe Routes to School Program: Broad Reach and Great Demand

Today, just 13% of children ages 5 to 14 walk and bicycle to and from school—a dramatic drop from 1969 when nearly 50% of children walked to school.¹ As a result, school districts and families spend billions on transportation and the volume of vehicles around schools creates traffic congestion, air pollution and wear and tear. The federal Safe Routes to School program, created in 2005 through the SAFETEA-LU transportation law, makes it safer for children to walk and bicycle to and from school.

From 2005 to 2012, approximately \$1.1 billion has been allocated to state departments of transportation (DOTs) for Safe Routes to School. Under the new transportation bill, MAP-21, Safe Routes to School projects are eligible under the Transportation Alternatives program. State DOTs award these funds to local governments and school systems for comprehensive efforts to improve safety and increase walking and bicycling to school.

The vast majority (70 to 90%) is spent on infrastructure improvements near schools, such as sidewalks, bike paths, crosswalks, school zone signage and traffic calming. The remaining 10 to 30% is for programs to teach children traffic safety skills, ensure that motorists are driving safely around schools and to encourage more children to walk and bicycle.

The availability of Safe Routes to School funding has galvanized a focus on prioritizing safety improvements around schools, resulting in improvements for traffic congestion, busing costs and physical activity.

Improving Safety and Preventing Tragedy

Safe Routes to School is a tool to help communities protect children and prevent tragedies. With limited funds available to address traffic safety, it makes sense to concentrate resources around schools where children spend a lot of time.

- In 2009, more than 23,000 children (ages 5 to 15) were injured and 250 killed by cars when they were struck while walking or bicycling. This represents 25% of all children's traffic fatalities and 15% of all children's traffic injuries.²

Following the tragic death of a 12-year-old girl killed riding her bicycle home from school, **Robertsville Middle School in Oak Ridge, TN** used \$238,000 in federal Safe Routes to School funding to add sidewalks, curb cuts and crosswalks near the school to improve safety for kids walking and bicycling.

- In 2005, the medical costs of hospitalization and treatment for children's bicycle and pedestrian fatalities and injuries totaled \$839 million—4.5 times what we spend annually on Safe Routes to School.³
- Preventing just one death of a child while walking or bicycling is estimated to save approximately \$1.1 million in lifetime medical and work-loss costs.⁴
- Infrastructure installed with Safe Routes to School funding is proven to reduce pedestrian and bicycle deaths and injuries. For example, adding a sidewalk cuts in half the risk that a pedestrian will be struck by a car.⁵

- As of June 2012, 76% of available funds have been awarded, with 6,100 awards averaging \$128,000 per award.
- Because many awards include multiple schools, an estimated 13,300 schools and 4.8 million children are benefiting from these federal funds.¹
- Due to limited funds, just 13% of schools in the nation have benefited from Safe Routes to School funding.

Addressing the Impact of the Trip to School on Traffic Congestion

Safe Routes to School improves infrastructure so parents feel safe allowing children walk and bicycle to school. As small reductions in miles driven have significant impacts on congestion, changing school commute habits can reduce congestion.

- In 2009, U.S. families drove 30 billion miles to take their children to and from school, at a cost of \$5 billion in fuel. During the morning commute, driving to school represents 5-7% of miles driven and 10-14% of traffic on the road.⁶
- From 2007 to 2008, vehicle miles driven nationwide dropped 2%, while travel delays decreased by 30%. From 2009 to 2010, when vehicle miles driven increased just 0.7%, congestion delays increased 11%.⁷
- For children who live less than a mile from school, 43% are driven to school—an easy distance for walking and bicycling if conditions are safe.

Helping School Systems Manage Busing Costs

Transportation is a major cost for school systems around the country, and fluctuating gas prices and education budgets cuts make it even more challenging to accommodate. Safe Routes to School can make it safer for children who live close to school to walk or bicycle, reducing the need for busing.

- In the 2007-08 school year, 55% of students were transported by school bus, at a cost of \$21.5 billion, an increase of 7.5% from the prior year.⁸
- Nationwide, 22% of school districts reduced busing in the 2010-11 school year due to fuel price increases and budget cuts.⁹
- Many school districts bus children short distances due to hazardous walking conditions, forcing school districts to choose between safety and budget. Adding infrastructure like sidewalks can reduce long-term costs.

Directing Funds Where They Are Needed Most

Small rural towns and lower-income communities often gravely need Safe Routes to School improvements due to the lack of safe infrastructure, high-volume roads and residents unable to afford a car. Because these communities often lack the tax base and financial resources to invest in sidewalks and crosswalks, Safe Routes to School funds, which do not require a local match, are key.

- Small towns often lack sidewalks, lighting and crosswalks even though 1.6 million rural households do not have access to cars.¹⁰
- In rural areas, drivers often do not slow down adequately when passing through towns, creating hazards for pedestrians and bicyclists.¹¹
- In low-income communities, fewer sidewalks and crosswalks plus more high-speed traffic¹² result in a higher risk of children from lower-income families being injured or killed by cars when walking.¹³
- Of schools that have received Safe Routes to School funds, 41% of are in small towns or rural areas and 23% are low-income schools.¹⁴

Roosevelt Middle School in Eugene, OR invested \$600,000 from Safe Routes to School in a walking path, crosswalks, school zone signage and programming. From 2007 to 2010, walking and bicycling rates have grown from 27% to 42% of kids. There are 53 fewer cars picking up children each day, a 24% reduction, easing congestion on streets near school.



Melrose Elementary in Wooster, OH used \$130,000 in federal Safe Routes to School funds to install sidewalks, crosswalks and school zone signage along Portage Road. Because the project improves safety for kids who live close to school, the district is now saving \$49,000/year in busing costs.



With several federal Safe Routes to School awards totaling \$200,000, rural Shelby, MT has constructed missing sidewalks with ramps and curbs along the busiest routes within Shelby, safely connecting kids in town with Shelby Elementary.



Alpine Elementary in Alpine, UT used \$71,500 in Safe Routes to School funding to add a safe walking path and to implement bicycling and walking education and encouragement. The number of students regularly walking and bicycling has increased from 32% in 2008 to 50% in 2011. In just six months, students walked 28,000 miles and got 500,000 minutes of physical activity.



As a small rural town, **Saint Joe, IN** lacked the tax base for sidewalks, forcing **Riverdale Elementary** students to walk in the street. With \$250,000 from Safe Routes to School, Saint Joe installed 1.5 miles of sidewalks—which would have taken 15 years to complete using only local funds. The town council views the new sidewalks as an asset to attract new businesses and residents and increase property values.



Increasing Physical Activity through Changes in the Built Environment

The high rates of childhood obesity in America affect health care costs, academic achievement and future work productivity. Communities that are more walkable and bikeable have higher physical activity rates.

- Childhood obesity has increased among children ages 6 to 11 from 4% in 1969 to 19.6% in 2007.¹⁵ Now 23 million children and teens—nearly one-third of all young people in the U.S.—are overweight or obese.¹⁶
- Today, one-quarter of health care costs are attributable to obesity,¹⁷ with direct costs for childhood obesity as high as \$14 billion annually.¹⁸
- Overweight and obese children, on average, have lower GPAs, more school absences and more disciplinary referrals.¹⁹
- Studies show that children who walk and bicycle to school are more physically active,²⁰ have lower body mass index scores,²¹ lower obesity levels²² and are more likely to meet physical activity guidelines²³ than students who are driven or bused to school.

Tallying the Financial Benefits of Safe Routes to School

Safe Routes to School infrastructure improvements create lasting benefits, which improve the routes to school, increase safety and add opportunities for physical activity for everyone. These benefits impact the budgets of schools and governments nationwide.

- Reducing the miles parents drive to school by just 1% would reduce 300 million miles of vehicle travel and save an estimated \$50 million in fuel costs each year—reducing traffic congestion.²⁴
- Conservatively assuming that 5% of today's school busing costs are for hazard busing, making it safe for those children to walk or bicycle instead could save approximately \$1 billion per year in busing costs.²⁵
- Given the up to \$14 billion in annual direct medical costs to treat childhood obesity, creating more opportunities for children to be physically active can reduce the burden on our public health system.²⁶
- Safe Routes to School projects require the assistance of engineering, planning and construction firms, which creates jobs and private sector benefits. Bicycle and pedestrian infrastructure create more jobs per million dollars spent than road repair and construction projects.²⁷
- In a recent survey of mayors in 176 cities, 60% said that the lack of additional funding for bicycle and pedestrian infrastructure was hindering their efforts to reduce congestion, improve livability and increase economic competitiveness.²⁸

The federal Safe Routes to School program gives communities and parents safe, healthy and economical transportation solutions, which is particularly critical in challenging economic times.

End Notes

- ¹ McDonald, Noreen, Austin Brown, Lauren Marchetti, and Margo Pedroso. "U.S. School Travel 2009: An Assessment of Trends." *American Journal of Preventive Medicine* 41 (August 2011): 2, 146-151.
- ² "Pedestrians: 2009 Data" and "Bicyclists and Other Cyclists: 2009 Data" Washington, DC: National Highway Traffic Safety Administration, 2009. Available at <http://www-nrd.nhtsa.dot.gov/Pubs/811394.pdf> and <http://www-nrd.nhtsa.dot.gov/pubs/811386.pdf>.
- ³ Lawrence, Bruce, Soma Bhattacharya, Eduward Zaloshnja, Paul Jones, Ted Miller, Phaedra Corso, and Claudia Steiner. "Medical and Work Loss Cost Estimation Methods for the WISQARS Cost of Injury Module." Calverton, MD: Pacific Institute for Research and Evaluation (PIRE), September 2009.
- ⁴ WISQARS (Web-based Injury Statistics Query and Reporting System). *2005 Cost of Injury Reports*. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Office of Statistics and Programming. Database queried for injuries and fatalities to child pedestrians and bicyclists ages 5 to 14, accessed June 2, 2011, <http://wisqars.cdc.gov:8080/costI/>.
- ⁵ Knoblauch, R, B Tustin, S Smith, and M Pietrucha. "Investigation of Exposure-Based Pedestrian Accident Areas: Crosswalks, Sidewalks, Local Streets, and Major Arterials." Washington DC: US Department of Transportation, 1987.
- ⁶ McDonald, Noreen, Austin Brown, Lauren Marchetti, and Margo Pedroso. "U.S. School Travel 2009: An Assessment of Trends." *American Journal of Preventive Medicine* 41 (August 2011): 2, 146-151.
- ⁷ INRIX, Inc. "INRIX National Traffic Scorecard 2010 Annual Report, Key Scorecard Findings." Accessed June 2, 2011, <http://www.inrix.com/scorecard/summary.asp>; and Federal Highway Administration. "Traffic Volume Trends, December 2010." Accessed May 29, 2011, <http://www.fhwa.dot.gov/ohim/tvtw/10dectvt/10dectvt.pdf>.
- ⁸ *Digest of Education Statistics, 2010*. Tables 184, 186 and 187. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2011.
- ⁹ Babcock, Stephane. "STN Fuel Survey: Schools feeling pinch from rise in prices." *STN Online*, March 14, 2011. Accessed June 1, 2011, <http://www.stnonline.com/home/top-stories/3218-stn-fuel-survey-schools-feeling-pinch-from-rise-in-prices>.
- ¹⁰ Dabson, Brian, Thomas G. Johnson, and Charles W. Fluharty. *A RUPRI Policy Brief: Rethinking Federal Investments in Rural Transportation: Rural Considerations Regarding Reauthorization of the Surface Transportation Act*. Columbia, MO: Rural Policy Research Institute, April 2011.
- ¹¹ Hallmark, Shauna, Eric Fitzsimmons, David Plazak, Tom Michael Welch, and Eric Petersen. "Use of Physical Devices for Calming Traffic Along Major Roads through Small Rural Communities in Iowa." *Transportation Research Record: Journal of the Transportation Research Board* 2078 (January 16, 2009): 100-107.
- ¹² Zhu, Xuemei and Chanam Lee. "Walkability and safety around elementary schools: Economic and ethnic disparities." *American Journal of Preventive Medicine* 34 (January 2008): 282-290.
- ¹³ Macpherson, Alison, Ian Roberts and Barry Pless. "Children's exposure to traffic and pedestrian injuries." *American Journal of Public Health* 88 (December 1998).
- ¹⁴ National Center for Safe Routes to School. *Federal Safe Routes to School Program Progress Report*. Raleigh, NC: August 2011.
- ¹⁵ Ogden, Cynthia and Margaret Carroll. "Prevalence of Obesity among Children and Adolescents: United States, Trends 1963-1965 through 2007-2008." Atlanta: Centers for Disease Control and Prevention. National Center for Health Statistics, June 2010.
- ¹⁶ Ogden, Cynthia, M Carroll, LR Curtin, MA McDowell, CJ Tabak, and KM Flegal. "Prevalence of Overweight and Obesity in the United States, 1999-2004." *Journal of the American Medical Association* 295 (2006): 1549-55.
- ¹⁷ Trasande L and S Chatterjee. "The impact of obesity on health service utilization and costs in childhood." *Obesity* 17 (2009): 1749-54.
- ¹⁸ Marder, William and Stella Chang. "Childhood Obesity: Costs, Treatment Patterns, Disparities in Care and Prevalent Medical Conditions. New York: Thomson Medstat Research Brief, 2006. Accessed June 3, 2011, www.medstat.com/pdfs/childhood_obesity.pdf.
- ¹⁹ Shore, Stuart, Michael Sachs, Jeffrey Lidicker, Stephanie Brett, Adam Wright and Joseph Libonati. "Decreased scholastic achievement in overweight middle school students." *Obesity* 16 (2008): 7, 1535-1538.
- ²⁰ Cooper AR, LB Andersen, N Wedderkopp, AS Page, and K Froberg. "Physical activity levels of children who walk, cycle or are driven to school." *American Journal of Preventive Medicine* 29 (2005): 3, 179-184.
- ²¹ Rosenberg DE, JF Sallis, TL Conway, KL Cain, and TL McDenzie. "Active transportation to school over 2 years in relation to weight status and physical activity." *Obesity* 14 (2006): 10, 1771-1776.
- ²² Mendoza JA, K Watson, N Nguyen, E Cerin, T Baranowski, and TA Nicklas. "Active Commuting to School and Association with Physical Activity and Adiposity Among US Youth." *Journal of Physical Activity and Health* 8 (May 2011): 4, 488-495.
- ²³ Sirard JR, WF Riner, KL McIver, and RR Pate. "Physical activity and active commuting to elementary school." *Medicine and Science in Sports and Exercise* 37 (2005): 12, 2062-2069.
- ²⁴ Calculated based on the current miles drive to school as cited in McDonald, Noreen, Austin Brown, Lauren Marchetti, and Margo Pedroso. "U.S. School Travel 2009: An Assessment of Trends." *American Journal of Preventive Medicine* 41 (August 2011): 2, 146-151, and with gasoline at \$4 per gallon.
- ²⁵ *Digest of Education Statistics, 2010*. Tables 184, 186 and 187. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2011.
- ²⁶ Marder, William and Stella Chang. "Childhood Obesity: Costs, Treatment Patterns, Disparities in Care and Prevalent Medical Conditions. New York: Thomson Medstat Research Brief, 2006. Accessed June 3, 2011, www.medstat.com/pdfs/childhood_obesity.pdf.
- ²⁷ Garrett-Peltier, Heidi. "Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts." Amherst, MA: Political Economy Research Institute, June 2011.
- ²⁸ Parsons Brinkerhoff. "Metropolitan Transportation Infrastructure Survey." Washington, DC: U.S. Conference of Mayors, May 2011. Accessed June 3, 2011, <http://usmayors.org/transportationsurvey/documents/survey.pdf>.