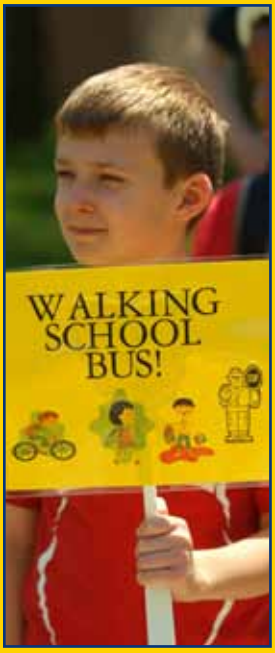
SAFE ROUTES to School
NATIONAL PARTNERSHIP

Getting Students Active through Safe Routes to School

Policies and Action Steps for Education Policymakers and Professionals



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Foreword

"I would argue if we want our students to be much more successful academically, they have to be active. These things aren't in conflict; they reinforce each other…We have to have opportunities for our students from the earliest of ages to be physically active and build a healthy lifestyle." ~ Arne Duncan, U.S. Secretary of Education, speaking at the April 9, 2010 White House Childhood Obesity Forum

As Secretary Duncan observed, children need *both* academics and physical activity to be healthy and successful. The research tells us that physical activity has a positive impact on academic achievement.

One way to build more physical activity into the lives of students is through Safe Routes to School, a program that is designed to make it safer for more children to walk and bicycle to school. Young people who walk and bicycle to school are more physically active and have lower body mass index scores than students who are bused or driven to school.

While Safe Routes to School is a relatively new program, all 50 states have funding to help school systems and communities improve the environment for walking and bicycling. In addition to the benefits related to physical activity, Safe Routes to School can also help school systems struggling with safety, rising bus transportation costs and a lack of connection to the community.

The Safe Routes to School National Partnership is pleased to present *Getting Students Active through Safe Routes to School: Policies and Action Steps for Education Policymakers and Professionals*. Our intent is to equip more education policymakers and professionals with the knowledge and tools necessary to implement and sustain successful Safe Routes to School programs and supportive policies.

As you will read in the pages that follow, education policymakers, administrators and personnel at the state, school district and individual school levels are finding creative and effective solutions that get more children walking and bicycling to school. We hope that you find these stories compelling and inspiring.

We look forward to hearing about your successes with Safe Routes to School programs, policies and action steps.

Sincerely,

Deb Hubsmith, Director
Safe Routes to School National Partnership
www.saferoutespartnership.org

Introduction

Education policymakers and professionals are charged with one of the most critical roles in our society—ensuring that all students have the opportunity to learn in an environment that is safe and that nurtures their intellectual, social and physical growth.

In this task education policymakers and professionals are faced with constant obstacles, and must make seemingly impossible decisions on allocating an ever-shrinking pool of resources while ensuring that students are meeting the necessary academic benchmarks. Moreover, schools today are on the front lines of the battle against the childhood obesity epidemic. More than one-third of children and teens—approximately 23 million young people—are overweight or obese, and physical inactivity is one of the major contributing factors.[1] In fact, it is projected that if the current rates of childhood overweight and obesity continue, today's children will be the first generation of Americans with a shorter life expectancy than their parents.[2]

To some, schools may be viewed solely as places of education, where students come to learn. However, it is becoming exceedingly clear that schools are in a prime position to influence the health behaviors of children and adolescents, as no other institution has so much continuous and intensive contact with young people. The large majority of young people ages 5 to 17 are enrolled in schools and spend a significant part of the day and much of the year there.[3] Schools, too, have a stake in the health of their students, as an increasing amount of published research speaks to the positive relationship between health and academic achievement.

The Centers for Disease Control and Prevention (CDC) recently released a review of the research looking at the relationship between school-based physical activity, physical education and academic performance. The review spanned research conducted within the past 23 years, and covered a broad array of contexts in which youth participate in school-based physical activity. Of the 50 studies included in the review, just over half (50.5 percent) found a positive association between physical activity and academic achievement and only 1.5 percent of the studies found a negative relationship. The researchers concluded that there is substantial evidence that physical activity can help improve academic achievement and that implementing strategies to help students meet national physical activity recommendations may in fact improve student achievement and school performance.[4]

In addition to in-school opportunities for physical activity, such as physical education, recess and in-class activities, students can meet the physical activity recommendations through activities outside of the school day. Safe Routes to School (SRTS) helps students be more physically active by making walking and bicycling to and from school safe, convenient and fun. Safe Routes to School projects across the nation are working with diverse partners to secure the funds and resources necessary to get more students safely walking and bicycling to school.

This resource guide is intended for education policymakers, administrators and personnel at the state, school district and individual school levels. It provides a detailed examination of the most up-to-date and relevant research linking physical activity and academic achievement, as well as the current rates of activity among school-aged youth. Safe Routes to School is presented as a viable option to not only help increase students' physical activity levels, but also as a strategy to build community support for schools, help make the school a safer and more pleasant environment, address rising transportation costs and respond to national school health initiatives.

Common challenges and obstacles faced by schools—such as transportation costs, safety and liability issues—are discussed, as well as ways Safe Routes to School programs can help to mitigate these issues. Safe Routes to School is discussed within the broader coordinated school health movement. A number of policies and action steps at the state, school district and school levels are suggested that can help successfully implement and institutionalize a Safe Routes to School program. Stories from communities across the nation provide "on the ground" examples of different ways Safe Routes to School programs can be implemented, and how communities work to address common barriers.

Making the Case: Why Physical Activity Matters for Education Policymakers and Professionals

Research Shows a Positive Relationship between Physical Activity and Academic Achievement

Findings from large, nationally representative studies show that physical activity has a positive impact on academic achievement in both young children[5] and adolescents,[6] regardless of other factors such as age, socioeconomic status, ethnicity and prior achievement scores.

The relationship between physical activity and academic achievement is receiving increased attention from educational policymakers, educators, researchers and public health authorities. For many, the connection between health and readiness to learn is instinctively clear. And, a growing body of research suggests a positive relationship between physical activity and indicators of academic achievement, such as grade point averages and scores on standardized tests.

Findings from large, nationally representative studies show that physical activity has a positive impact on academic achievement in both young children[5] and adolescents,[6] regardless of other factors such as age, socioeconomic status, ethnicity and prior achievement scores. These findings are important, as socioeconomic status is the most significant predictor of academic achievement. The California Department of Education looked at the Stanford Achievement Test scores of nearly one million fifth, sixth and seventh graders and found that as physical fitness increased, so too did test scores.[7] Other researchers found that third and fifth graders who displayed higher levels of physical fitness were more likely to have higher standardized test scores in reading and mathematics regardless of socioeconomic status age, gender and school characteristics.[8]

A study presented at the American Heart Association's 2010 Conference on Nutrition, Physical Activity and Metabolism examined the fitness levels, body mass index (BMI) and scores on standardized academic achievement tests of 725 West Virginia students in fifth grade and again in seventh grade. The researchers found that students who had the highest average scores on standardized tests in reading, math, science and social studies were fit at the start and end of the study. The next highest achieving group in all four subjects was made up of students who were not fit in fifth grade but had become fit by seventh grade. The students whose fitness levels had declined between fifth and seventh grades were third in academic performance. Students who were not physically fit in either the fifth or seventh grades had the lowest academic performance.[9]

Physical activity is also extremely important for the millions of students who are overweight and obese. Studies have shown that physical activity can be especially beneficial to the cognitive functioning of overweight children.[10, 11] There is also evidence suggesting that overweight and obese students may struggle academically in school, compared to their non-overweight peers. For example, Shore and colleagues[12] found significant differences in academic achievement, attendance and discipline measures between overweight and non-overweight sixth and seventh graders. Specifically, the GPA of overweight students was 11 percent lower than that of non-overweight students. Compared with non-overweight peers, overweight students also had 25 percent more absences from school and were five times more likely to have six or more detentions.

Additional Research Findings Connecting Physical Activity and Academic Achievement

- Researchers analyzed test results from more than 2.4 million Texas third through twelfth graders during the 2007-2008 school year and found significant correlations between physical fitness achievement and better performance on state standardized tests. Higher physical fitness was also associated with better attendance rates and fewer disciplinary incidents involving drugs, alcohol, violence or truancy.[13]
- Students who performed vigorous physical activity that met or exceeded the Healthy People 2010 guidelines achieved higher scores on standardized tests and higher grades in their core classes.[14]
- After adjusting for socioeconomic status and gender, the percent of eighth graders at academic risk (report usually getting C's, D's or F's) was significantly higher for those with insufficient exercise (35 percent at risk) versus those who had sufficient exercise (22 percent).[15]
- Data from the Early Childhood Longitudinal Study found that girls who were enrolled in physical education for 70 minutes or more per week had significantly higher scores in reading and mathematics than did girls who were enrolled in physical education for 35 or fewer minutes per week. There was no significant difference among boys.[16]
- Students who were more physically fit (as determined by number of fitness tests passed) were more likely to pass standardized tests in math and English. When controlling for gender, ethnicity, weight status, grade and socioeconomic status researchers found that:
    - The odds of passing the math standardized test increased by 38 percent for each 1-unit increase in the number of fitness tests passed; and
    - The odds of passing the English standardized tests increased by 24 percent for each 1-unit increase in the number of fitness tests passed.[17]

How Does Physical Activity Help Students Achieve in School?

The most widely cited benefit of a North Carolina policy mandating at least 30 minutes of physical activity per day for students in kindergarten through eighth grades was an improvement in academic focus among students.[21]

Researchers believe that the relationship between physical activity and academic achievement is both physical and psychological. Physical activity, specifically aerobic exercise (such as bicycling, running and walking) increases oxygen and the amount of blood flowing to the brain, and has been shown across a number of studies to have positive effects on concentration, planning, abstract thinking, self control, verbal and mathematical competencies.[18] Single, short bouts of physical activity[19] and overall physical fitness[20] have both been associated with cognitive functioning. In fact, the most widely cited benefit of a North Carolina policy mandating at least 30 minutes of physical activity per day for students in kindergarten through eighth grades was an improvement in academic focus among students.[21]

In addition to its positive physiological effects, physical activity has been found to benefit young people psychologically as well. Increased physical activity is related to higher levels of self-esteem and lower levels of anxiety and stress—each of which has been associated with enhanced academic performance.[22-24] Another study found that physical activity was associated with components of mental health (such as self-esteem, emotional well-being and future expectations) and, when the activity included parental involvement, the relationship was even stronger.[25] In a related study, researchers found that among high school seniors, those who had higher levels of physical activity also reported having better relationships with their parents, lower rates of reported depression, higher grade point averages and less use of cigarettes, alcohol and drugs.[26]

Most School-Aged Youth Are Not Getting the Recommended Amount of Physical Activity

According to the 2008 Physical Activity Guidelines for Americans, young people aged 6 to 17 should participate in at least 60 minutes of physical activity every day. It is also recommended that most of the 60 minutes be made up of aerobic activity of moderate or vigorous intensity, and that the activities should be age-appropriate, enjoyable and varied.[27]

However, it is clear that a majority of young people in the United States are not attaining the recommended amount of daily physical activity. According to the National Health and Nutrition Examination Survey 2003-2004 (NHANES), only 42 percent of children aged 6 to 11 achieved the recommended amount of physical activity, as measured by an accelerometer. These figures plummeted with age, as only 8 percent of youth aged 12 to 15 and 7.6 percent of youth aged 16 to 19 met the

recommendations for physical activity. The decline in physical activity was even more pronounced in girls, with 34.7 percent of girls aged 6 to 11 meeting the physical activity guidelines versus 3.4 percent of 12 to 15 year olds.[28]

These findings are echoed in the results from the 2007 Youth Risk Behavior Surveillance Survey (YRBSS), which found that only 34.7 percent of ninth through twelfth grade students were meeting the physical activity recommendations. The percentage of students who met the guidelines decreased with age (from 38 percent for all ninth graders to 29.5 percent for all twelfth graders). Again, the decline among girls was more pronounced with 31.5 percent of ninth grade girls meeting the guideline versus only 20.6 percent of twelfth grade girls.[29] Data from the 2009 YRBSS will be released in the summer of 2010.

The ubiquity of physical inactivity is a major contributor to the obesity epidemic. According to 2007-2008 NHANES data, approximately 34.7 percent of youth aged 6 to 19 are considered overweight (body mass index at or above the 85th percentile) while 18.7 percent are considered obese (body mass index at or above the 95th percentile). These figures have remained consistent over the past 10 years, and disparities among racial and ethnic groups still persist.[30]

Additional Resources

Physical activity guidelines:

- Physical activity guidelines for Americans (Centers for Disease Control and Prevention): **http://www.cdc.gov/physicalactivity**
- National guidelines for physical activity and physical education (National Association for Sport and Physical Education): **http://www.aahperd.org/naspe/standards/nationalguidelines/**
- Healthy People 2010 national health objectives (U.S. Department of Health and Human Services): **http://www.healthypeople.gov/**

Research summaries on physical activity and academics:

- *The Association between School-Based Physical Activity, Including Physical Education, and Academic Performance* (Centers for Disease Control and Prevention): **http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf**
- *Active Education: Physical Education, Physical Activity and Academic Performance Research Brief* (Active Living Research): **http://www.activelivingresearch.org/files/Active_Ed_Summer2009.pdf**

Ongoing health and physical activity surveys and studies:

- Youth Risk Behavior Surveillance System (YRBSS) (Centers for Disease Control and Prevention): **http://www.cdc.gov/HealthyYouth/yrbs/index.htm**
- National Health and Nutrition Examination Survey (NHANES) (Centers for Disease Control and Prevention): **http://www.cdc.gov/nchs/nhanes.htm**

References

1. Robert Wood Johnson Foundation. (2009, Summer). *Active education: Physical education, physical activity and academic performance*. Retrieved April 19, 2010, from http://www.activelivingresearch.org.
2. Olshansky, S.J., Passaro, D.J., Hershow, R.C., Layden, J., Carnes, B.A., Brody, J., et al. (2005). A potential decline in life expectancy in the United States in the 21st century. *New England Journal of Medicine,* 352, (11), 1138-1145.
3. Longley, C.H., & Sneed, J. (2009). Effects of federal legislation on wellness policy formation in school districts in the United States. *Journal of the American Dietetic Association,* 109, 95-101.
4. Centers for Disease Control and Prevention. (2010). *The association between school based physical activity, including physical education, and academic performance.* Atlanta, GA: U.S. Department of Health and Human Services.
5. Stevens, T. A., To, Y., Stevenson, S. J., & Lochbaum, M. R. (2008). The importance of physical activity and physical education in the prediction of academic achievement. *Journal of Sport Behavior,* 31,(4), 368-388.
6. Nelson, M.C. & Gordon-Larsen, P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics,* 117, 1281-1290.
7. California Department of Education [CDE]. (2001). *California physical fitness test: Report to the governor and legislature.* Sacramento, CA: California Department of Education Standards and Assessments Division.
8. Castelli, D.M., Hillman, C.H., Buck, S.M., & Erwin, H.E. (2007). Physical fitness and academic achievement in third-and fifth-grade students. *Journal of Sport and Exercise Psychology,* 29, (2), 239–252.
9. Cottrell, L.A., Wittberg, R., & Northrup, K. (2010, March). *Long-term physical fitness is associated with children's academic achievement.* Presented at the American Heart Association's 2010 Conference on Nutrition, Physical Activity and Metabolism, San Francisco, CA.
10. Buck, S.M., Hillman, C.H., & Castelli, D.M. (2008). The relation of aerobic fitness to stroop task performance in preadolescent children. *Medicine and Science in Sports and Exercise,* 40, (1), 166-172.
11. Davis, C.L., Tomporowski, P.D., Boyle, C.A., Waller, J.L., Miller, P.H, Naglieri, J.A., et al. (2007). Effects of aerobic exercise on overweight children's cognitive functioning: A randomized control trial. *Research Quarterly for Exercise and Sport,* 78, (5), 510-519.
12. Shore, S.M., Sachs, M.L., Lidicker, J.R., Brett, S.N., Wright, S.N., & Libonati, J.R. (2008). Decreased scholastic achievement in overweight middle school students. *Obesity,* 16, (7), 1535-1538.
13. Welk, G. (2009, March). *Cardiovascular fitness and body mass index are associated with academic achievement in schools.* Cooper Institute, Dallas, TX.
14. Coe, D.P., Pivarnik, J.M., Womack, C.J., Reeves, M.J., & Malina, R.M. (2006). Effect of physical education and activity levels on academic achievement in children. *Medicine and Science in Sports and Exercise,* 38, 151-1519.

15. Dilley, J. (2009). *Research review: School-based health interventions and academic achievement.* Washington State Department of Health.
16. Carlson, S., Fulton, J. E., Lee, S. M., Maynard, M., Brown, D.R., Kohl, H.W., et al. (2008). Physical education and academic achievement in elementary school: Data from the Early Childhood Longitudinal Study. *American Journal of Public Health,* 98, (4), 721-727.
17. Chomitz, V.R., Slining, M.M., McGowan, R.T., Mitchell, S.E., Dawson, G.F. & Hacker, K. A. (2009). Is there a relationship between physical fitness and academic achievement? Positive results from public school children in Northeastern United States. *Journal of School Health,*79, 30-37.
18. Sibley, B.A. & Etnier, J.L. (2003). The relationship between physical activity and cognition in children: A meta-analysis. *Pediatric Exercise Science,* 15, 243-256.
19. Hillman, C.H., Pontifex, M.B., Raine, L.B., Castelli, D.M., Hall, E.E., & Kramer, A.F. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*, 159, 1044-1054.
20. Stroth, S., Kubesch, S., Dieterle, K., Ruchsow, M., Heim, R., & Kiefer, M. (2009). Physical fitness, but not acute exercise modulates event-related potential indices for executive control in healthy adolescents. *Brain Research,* 1269, 114-124.
21. Evenson, K.R., Ballard, K., Lee, G., & Ammerman, A. (2009). Implementation of a school-based state policy to increase physical activity. *Journal of School Health,* 79, (5), 231-238.
22. Ekeland, E., Heian, F., Hagen, K.B., Abbot, J.M., & Nordheim, L. (2004). Exercise to improve self-esteem in children and young people. *Cochrane Database of Systematic Reviews* 2004, Issue 1. Art. No.: CD003683. DOI: 10.1002/14651858. CD003683.pub2.
23. Shepherd, R.J. (1997). Curricular physical activity and academic performance. *Pediatric Exercise Science*, 9,113-126.
24. Flook, L., Repetti, R.L., & Ullman, J.B. (2005). Classroom social experiences as predictors of academic performance. *Developmental Psychology,* 41, (2), 319-327.
25. Nelson, M.C. & Gordon-Larsen, P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics,* 117, 1281-1290.
26. Field, T., Diego, M., & Sanders, C.E. (2001). Exercise is positively related to adolescents' relationships and academics. *Adolescence,* 36, (141), 105-109.
27. Centers for Disease Control and Prevention. *2008 Physical guidelines for Americans: Fact sheet for health professionals on physical activity guidelines for children and adolescents.* Accessed April 19, 2010 from http://www.cdc.gov/physicalactivity.
28. Troiano, R.P., Berrigan, D., Dodd, K.W., Masse, L.C., Tilert, T., & McDowell, M. (2008). Physical activity in the United States measured by accelerometer. *Medicine and Science in Sports and Exercise,* 40, (1), 181-188.
29. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance-2007. Surveillance Summaries, (June 6, 2008). *MMWR* 2008; 57(No. SS-4).
30. Ogden, C.L., Carrol, M.D., Curtin, L.R., Lamb, M.M., & Flegal, K.M. (2010). Prevalence of high body mass index in US children and adolescents, 2007-2008. *Journal of the American Medical Association,* 303, (3), 242-249.

The Role of Safe Routes to School in Student Physical Activity

Safe Routes to School is a national and international movement to create safe, convenient and fun opportunities for students to walk and bicycle to and from school. The initiative has been designed to reverse the decline in the numbers of young people walking and bicycling to schools. Safe Routes to School can also play a critical role in reversing the alarming nationwide trend toward childhood obesity and inactivity discussed in the prior section of this guide. In 2005, Congress created the federal Safe Routes to School program and, over a six-year period, has allocated nearly $800 million to the state departments of transportation in all 50 states and the District of Columbia for implementation. Communities are using this funding to construct new bicycle routes, pathways and sidewalks, as well as to launch Safe Routes to School education, encouragement and enforcement campaigns in elementary and middle schools.

The most successful Safe Routes to School programs incorporate the "five E's": evaluation, education, encouragement, engineering and enforcement. Through this comprehensive approach, students learn how to safely walk and bicycle; infrastructure and enforcement changes provide a safer environment for walking and bicycling; and students and parents are encouraged to choose active transportation for their trips to and from school. These benefits can help increase physical activity levels outside school and build healthy habits that will hopefully last a lifetime.

The "Five E's" of a Safe Routes to School Program

The U.S. Department of Transportation recommends that Safe Routes to School efforts in the United States incorporate—directly or indirectly—five components, often referred to as the Five E's, outlined below:

Engineering—Creating operational and physical improvements to the infrastructure surrounding schools that reduce speeds and potential conflicts with motor vehicle traffic, and establish safer and fully accessible crossings, walkways, trails and bikeways.

Education—Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills and launching driver safety campaigns in the vicinity of schools.

Enforcement—Partnering with local law enforcement to ensure traffic laws are obeyed in the vicinity of schools (this includes enforcement of speeds, yielding to pedestrians in crosswalks and proper walking and bicycling behaviors) and initiating community enforcement such as crossing guard programs.

Encouragement—Using events and activities to promote walking and bicycling.

Evaluation—Monitoring and documenting outcomes and trends through the collection of data, including the collection of data before and after the intervention(s).

Active Transportation and Physical Activity Levels

Safe Routes to School initiatives are focused on making it safer for more children to walk and bicycle to school—which is directly correlated with physical activity levels. Youth who walk and bicycle to school are more physically active,[31,32] have lower body mass index (BMI) scores[33] and are more likely to meet physical activity guidelines than students who are bused or driven to school.[34] According to a study conducted with fifth graders in South Carolina, students who walked to school five days a week had approximately twenty-four more minutes of moderate-to-vigorous physical activity *per day* than those who walked less than five days or traveled by car.[35] Further, a 2004 survey of over 10,000 people in Atlanta, Georgia showed that each additional hour spent in a car per day was associated with a 6 percent increase in the odds of being obese, while each additional kilometer walked per day was associated with a 4.8 percent reduction in the odds of being obese.[36]

Unfortunately, walking and bicycling to school has declined dramatically over the years. Forty years ago walking to school was the norm—nearly half (48 percent) of students ages 5 to 14 walked or bicycled to school in 1969. By 2009, that percentage had dropped to just 13 percent. Conversely, 12 percent of children ages 5 to 14 arrived at school by private automobile in 1969, and, by 2009, this number increased to 44 percent. When measuring trips to school of one mile or less, a distance considered easily walkable and bikeable for most students, 38 percent of five to 14-year old students reported usually walking and bicycling to school in 2009, compared to 88 percent of students in 1969.[37]

It is critical to increase levels of walking and bicycling to school to get children more active and healthy. In addition, Safe Routes to School programs can have other positive impacts on the school environment and the larger community. By working with a diverse stakeholder group, Safe Routes to School programs can draw resources such as staff time from outside sources and organizations. Also, Safe Routes to School can help secure financial support and grant funding from sources like the federal Safe Routes to School program, nonprofit organizations, foundations, government agencies and corporate sponsors. Finally, because infrastructure improvements around the school that improve safety for students walking and bicycling also create a safer walking environment for the entire neighborhood, Safe Routes to School can be a means of engaging community residents. Up to 39 percent of the land in large urban areas of the United States is within one-half mile of public schools.[38]

Youth who walk and bicycle to school are more physically active,[31,32] have lower body mass index (BMI) scores[33] and are more likely to meet physical activity guidelines than students who are bused or driven to school.[34]

Other Benefits of Safe Routes to School

Schools can benefit from closer relationships with law enforcement and local government, as they provide an opportunity for the school to leverage community resources, build key stakeholder buy-in and facilitate a deeper connection with community members.

Mitigating increasing transportation costs: Cities and states spend 14.7 billion dollars annually to get students to and from school, which constitutes 5 percent of a typical school district budget.[39] School busing costs have increased dramatically in the last four decades for a number of reasons, including the rising cost of fuel and the longer distances students are bused. Schools are increasingly sited in outlying areas that are outside of walking and bicycling range. Many districts are also using "hazard busing" to transport students short distances because of unsafe roadway conditions. Hazard busing is far more commonly used by newer schools as opposed to older "neighborhood schools." In fact, a South Carolina study found that schools built after 1971 were three times more likely to engage in hazard busing.[40] Safe Routes to School programs work to alleviate the financial burden of hazard busing practices by partnering with municipalities to improve the walking and bicycling environment near the school. See pages 60-67 for more information.

Greater connection with parents, law enforcement, local government and community: Successful Safe Routes to School programs are implemented and sustained by forging strong relationships between school systems and parents, law enforcement, transportation engineers, city planners, local government elected officials and the community at-large. In fact, one benefit of a walking school bus program (a group of students walking to school with one or more adults) was increased social connections built between schools, parents and students during the project.[41] Schools can also benefit from closer relationships with law enforcement and local government, as they provide an opportunity for the school to leverage community resources, build key stakeholder buy-in and facilitate a deeper connection with community members. Increasing the community's connectedness to the school may be critical to ensuring the needs of the school are prioritized and supported by community leaders, elected officials and voters. Read pages 26-35 for more information on forging and maintaining important partnerships to start and sustain a successful Safe Routes to School program.

Safer, cleaner arrival and dismissal experiences: The significant increase in the number of parents who drop their children off at school has made arrival and dismissal times dangerous and stressful when the proper infrastructure and enforcement strategies are lacking. Vehicles entering and exiting the school area can cause a major safety hazard for the students who do walk and bicycle to school. In addition, idling cars during student drop-off and pick-up times are a significant contributor to air pollution near schools. Vehicle emissions are a major trigger for asthma, one of the leading causes of school absenteeism related to chronic disease. In 2003, an estimated 12.8 million school days were missed due to asthma among the more than 4 million students who reported at least one asthma attack in the

preceding year.[42] Safe Routes to School can help alleviate the amount of traffic and air pollution near the school by providing students living close to school with the tools and skills to safely walk and bicycle to school and reducing the number of parents that drive their children to school. Education and enforcement activities implemented as a part of a Safe Routes to School program help alleviate the fears some parents might feel about letting their children walk or bicycle to school. See pages 36-43 for more information on how Safe Routes to School can help create a safer and friendlier arrival and dismissal experience for everyone involved.

Solutions to Common Concerns when Implementing a Safe Routes to School Program

Concerns are common when starting a Safe Routes to School program in a school. Here are a few perceived barriers, as well as suggested solutions and where to go for more information.

Burden on staff time and school finances—Successful Safe Routes to School programs are able to overcome this obstacle by leveraging existing resources through partnerships within the community. As Safe Routes to School programs become institutionalized, staff and teachers can successfully integrate Safe Routes to School into their educational program and job duties. Safe Routes to School programs can also be a vehicle to bring in grant funding and outside expertise or personnel from the federal Safe Routes to School program, nonprofits, foundations and corporations. See pages 26-35 for more information on building partnerships to implement and sustain Safe Routes to School programs.

Testing and curriculum standards—Research shows that children who receive regular physical activity score better on tests and have higher cognition. In addition, Safe Routes to School classroom activities, particularly those focused on bicycle and pedestrian safety, can be tailored to meet curriculum standards and benchmarks. Turn to pages 50-59 for examples on how bicycle and pedestrian safety can be built into health and physical education classes.

Liability concerns—Fear of liability can cause schools to withhold support for Safe Routes to School programs. But such liability fears are often unwarranted, and common sense precautions go a long way toward avoiding liability risk. By acting responsibly and understanding liability issues, schools can minimize their risks. In addition, Safe Routes to School programs have the potential to reduce schools' risk of liability by anticipating possible sources of danger and taking precautions to protect children against injury. The Additional Resources on page 18 include links to more specific information on liability as it pertains to Safe Routes to School.

Crime and danger—Working in concert with law enforcement and other community members through Safe Routes to School programs can help make the areas near schools safer and address concerns about vandalism, bicycle thefts and bullying on the trip to school. Additionally, Safe Routes to School programs can provide community benefits by proactively working to clean up neighborhoods and install structural improvements as a part of their program. See the Additional Resources on page 18 for a link to a new resource guide on implementing Safe Routes to School in low-income communities that includes local examples of efforts to protect children from crime and violence on the trip to school.

Safe Routes to School as Part of National School Health Initiatives

The critical role the school environment plays in the health of young people is evidenced by the number of national school health initiatives that work toward the common goal of helping students be healthy, happy and ready to learn. Of course, the ultimate goal for all school health programs is to engender healthy behaviors that translate to out of school time. Each of the initiatives discussed below incorporates physical activity as an essential component to lifelong wellness—which is where linkages can be made to Safe Routes to School. In order to make an impact in these areas, schools must be supported through strong policies and systematic collaboration with stakeholders ranging from family members and young people to health care workers, community organizations, the media and government. Partnership opportunities play a large role in all three of the following national trends, policies and approaches.

Coordinated School Health

In partnership with community agencies and organizations, schools can work to improve the health and well-being of young people. One approach recommended by the Centers for Disease Control and Prevention is coordinated school health (CSH). CSH integrates health promotion efforts across eight interrelated components (health education, physical education, health services, nutrition services, mental health and social services, healthy and safe school environment, staff wellness and family/community involvement). Further, CSH brings together school administrators, teachers, other staff, students, families and community members to assess health needs; set priorities; and plan, implement and evaluate school health activities.

Implementing a coordinated school health approach can improve students' health literacy, health behaviors and health outcomes, educational achievement and social outcomes.[43] Safe Routes to School is a natural fit within coordinated school health, as it provides opportunities to link curriculum with before and after-school activities; encourages partnerships between schools, law enforcement and traffic safety; and fulfills content standard requirements in health and physical education. Many states are already assisting schools with implementing coordinated school health locally. Go to the Additional Resources section on page 18 for more information on coordinated school health efforts across the country.

USDA Local Wellness Policy

Congress recognizes that schools play a critical role in promoting student health, preventing childhood obesity and combating problems associated with poor nutrition and physical inactivity. To formalize and encourage this role, in 2004, Congress passed the Child Nutrition and WIC Reauthorization Act. The law requires all local education agencies participating in the National School Lunch Program to create local wellness policies that set goals for nutrition education, physical activity, campus food provision and other school-based activities designed to promote student wellness.

The legislation places the responsibility of developing and implementing a wellness policy at the local level so that the individual needs of each district can be addressed. Some districts around the country have included Safe Routes to School language in their district wellness policies and have been very successful in increasing active transportation to and from school. More information on Safe Routes to School and wellness policies is provided on pages 44-49.

Comprehensive Physical Education and Physical Activity Programs

Schools have the opportunity to offer physical activity throughout the day for their students, as well as quality physical education programs aligned to local, state and/or national physical education content standards. The U.S. National Physical Activity Plan, released in May 2010, recommends that schools have a comprehensive plan in place for providing students with opportunities for physical activity and quality physical education.

The National Association for Sport and Physical Education recommends that schools provide 150 minutes of instructional physical education for elementary school children and 225 minutes for middle and high school students per week for the entire school year.[44] Incorporating pedestrian and bicycle safety into the physical education and health education curriculum is one way to align Safe Routes to School to curriculum.

Opportunities for physical activity outside physical education class are beneficial for students, but should never replace physical education. Safe Routes to School is one way to provide students with opportunities for physical activity outside the school day. More information on integrating Safe Routes to School with physical education and physical activity programs can be found on pages 50-59.

Physical activity vs. physical education: Understanding the difference

Physical education is based on a written and sequential curriculum that is aligned to the national/state standards for physical education. A quality physical education program teaches children the skills and knowledge needed to establish and sustain an active lifestyle.

Physical activity is bodily movement of any type. Schools can encourage and facilitate physical activity before, during and after school through physical education classes, classroom-based movement, recess, walking or bicycling to school and recreational sport and play.

Through a comprehensive physical education and physical activity plan, schools can ensure that children have the necessary skills for lifelong physical activity and opportunities to be active throughout the school day plus before and after school.

Additional Resources

Research summaries on active transportation and physical activity:

- *Active Transportation: Making the Link from Transportation to Physical Activity and Obesity Research Brief* (Active Living Research): **http://www.activelivingresearch.org/files/ALR_Brief_ActiveTransportation.pdf**
- *Walking and Biking to School, Physical Activity and Health Outcomes Research Brief* (Active Living Research): **http://www.activelivingresearch.org/files/ALR_Brief_ActiveTransport.pdf**

Tools to assist with common Safe Routes to School implementation concerns:

- *10 Tips for Safe Routes to School Programs and Liability* (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/resources/collateral/liabilitytipsheet.pdf**
- Additional resources on liability will be available summer 2010 (National Policy & Legal Analysis Network to Prevent Childhood Obesity and the Safe Routes to School National Partnership): **http://www.saferoutespartnership.org**
- *Implementing Safe Routes to School in Low-Income Schools and Communities: A Resource Guide for Volunteers and Professionals* (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/mediacenter/publications**

Background on national school health initiatives:

- Coordinated School Health (Centers for Disease Control and Prevention): **http://www.cdc.gov/HealthyYouth/CSHP/**
- Local Wellness Policies (U.S. Department of Agriculture): **http://www.fns.usda.gov/tn/Healthy/Wellnesspolicy.html**
- National guidelines for physical activity and physical education (National Association for Sport and Physical Education): **http://www.aahperd.org/naspe/standards/nationalguidelines/**
- U.S. National Physical Activity Plan: **http://www.physicalactivityplan.org/**

References

31. Alexander, L.M., Inchley, J., Todd, J., Currie, D., Cooper, A.R., & Currie, C. (2005). The broader impact of walking to school among adolescents: Seven day accelerometer based study. *British Medical Journal,* 331, 1061-1062.
32. Cooper, A.R., Andersen, L.B., Wedderkopp, N., Page, A.S., Froberg, K. (2005). Physical activity levels of children who walk, cycle, or are driven to school. *American Journal of Preventive Medicine,* 29, (3), 179-184.
33. Rosenberg, D.E., Sallis, J.F., Conway, T.L., Cain, K.L., & McKenzie, T.L. (2006). Active transportation to school over 2 years in relation to weight status and physical activity. *Obesity,* 14, (10), 1771-1776.
34. Tudor-Locke, C., Neff, L.J., Ainsworkth, B.E., Addy, C.L., & Popkin, B.M. (2002). Omission of active commuting to school and the prevalence of children's health-related physical activity levels: The Russian Longitudinal Monitoring Study. *Child Care Health Development,* 28, 507-512.
35. Sirard, J.R., Riner, W.F., McIver, K.L., & Pate, R.R. (2005). Physical activity and active commuting to elementary school. *Medicine and Science in Sports and Exercise,* 37, (12), 2062-2069.
36. Frank, L.D., Andresen, M., & Schmid, T. (2004). Obesity relationships with community design, physical activity and time spent in cars. *American Journal of Preventive Medicine,* 27, (2), 87-96.
37. Pedroso, M. & Dickson, C. (2010, April 8). *U.S. travel data show decline in walking and bicycling to school has stabilized.* [press release]. Retrieved April 19, 2010 from http://www.saferoutespartnership.org/27892/450701.
38. Watson, M., & Dannenberg, A. (2008, July). Investment in safe routes to school projects: Public health benefits for the larger community. *Preventing Chronic Disease,* 5, (3), A90.
39. McDevitt, C. (2008, September 15). Waving goodbye to the school bus: As fuel prices rise, some districts are updating old methods of getting children to school. *Newsweek.* Available at http://www.newsweek.com/id/157579.
40. Kouri, C. (1999). *Wait for the bus: How low country school site selection and design deter walking to school and contribute to urban sprawl.* South Carolina Coastal Conservancy League, Duke University-Terry Sanford Institute of Public Policy.
41. Kingham, S., & Ussher, S. (2007). An assessment of the benefits of the walking school bus in Christchurch, New Zealand. *Transportation Research*, A41, 502-510.
42. Centers for Disease Control and Prevention, "Asthma," http://www.cdc.gov/HealthyYouth/asthma/ (accessed April 20, 2010).
43. Fetro, J.V., Givens, C., & Carroll, K. (2010). Coordinated school health: Getting it all together. *Educational Leadership*, 67, (4), 32-27.
44. National Association for Sports and Physical Education, "National Guidelines," http://www.aahperd.org/naspe/standards/nationalGuidelines (accessed April 26, 2010).

Steps to a Successful Safe Routes to School Program

The bulk of this resource guide is focused on policies and action steps that educational policymakers, administrators and personnel can undertake to implement and institutionalize Safe Routes to School initiatives across states, school districts and individual schools. However, before looking at the big picture, it is helpful to understand the basic steps involved in implementing a Safe Routes to School initiative at the local level.

1. Create a Safe Routes to School team and start planning

A successful Safe Routes to School initiative requires the buy-in and involvement of a range of partners, including parents and students, the mayor or city manager, the local transportation department, the school nurse and local health officials, school district transportation officials and school personnel. Having the right people working together from the start will make it much easier to make it safer for children to walk and bicycle. The team should discuss how it will assess the needs, plan for solutions and evaluation results.

- Getting Started Guide (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/index.cfm
- Michigan's Safe Routes to School Handbook (Michigan Department of Transportation and Michigan Fitness Foundation): http://www.saferoutesmichigan.org/toolkit.htm
- Evaluation guide (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/evaluation/index.cfm

2. Document safety problems around the school and parental concerns

Problems must be identified before solutions can be designed. Get a group of parents, city officials and school officials to walk streets in the vicinity of the school and note where sidewalks are in bad repair or missing, bikeways are needed, branches are obscuring signs and crosswalks are missing. Images available through Google Earth can also help identify missing sidewalks. Parents can provide input on safety concerns through surveys if they are unable to participate in walkabouts.

- Walkability checklist (National Center for Safe Routes to School): http://drusilla.hsrc.unc.edu/cms/downloads/walkabilitychecklist.pdf
- Parent survey (National Center for Safe Routes to School): http://www.saferoutesinfo.org/resources/evaluation_parent-survey.cfm

3. Make needed short-term safety improvements

While many of the safety problems will likely require longer-term infrastructure improvements, there are many ways the city or county can help address safety issues using existing employees and resources. Small improvements could include painting crosswalks on roads around the school, installing signage to warn drivers to slow down around children walking or bicycling, regularly removing debris from sidewalks and road shoulders, trimming branches overhanging sidewalks around the school and prioritizing sidewalk repair around the school.

- Engineering guide (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/engineering/index.cfm

4. Map "safer walking routes" or create "walking school buses"

Schools and city planning officials can put together "safer walking routes" that identify locations of crossing guards, marked crosswalks, sidewalks and traffic signals. Schools can also help parents organize "walking school buses" and "bicycle trains" where parents and volunteers walk or bicycle with groups of students to and from school each day. This can be as informal as encouraging parents in neighborhoods to volunteer to walk with neighborhood children, or as formal as an organized, scheduled program.

- School Walking Map (City of Alexandria, Virginia): http://alexandriava.gov/uploadedFiles/tes/info/Safe Routes to School percent20maps_Barrett.pdf
- Walking School Bus Guide (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/walking_school_bus/index.cfm

5. Hold pedestrian and bicycle safety education workshops

Resources are available to help students learn how to be safe when walking and bicycling. Local police departments may be able to provide basic training in safe behaviors in crossing the street and avoiding "stranger danger." Many state or local bicycling advocacy groups can provide bicycle safety education classes.

- Smart Cycling courses and instructors (League of American Bicyclists): http://www.bikeleague.org/programs/education/index.php
- State and local bicycle and pedestrian advocacy groups (Alliance for Biking and Walking): http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/C530
- Safe Kids Walk This Way child pedestrian safety resources (Safe Kids USA): http://www.usa.safekids.org/wtw/

6. Step up traffic safety enforcement

A lot of the immediate safety issues—dangerous cross walks or speeding drivers—can be addressed through increased traffic enforcement in the vicinity of schools. Work with local law enforcement officials to see if they can place mobile speed trailers around the school to track driver speeds, step up patrols around the school to ticket drivers, add crossing guards and review whether speed limits around schools should be reduced. The local media can help bring

awareness to efforts to get drivers to pay attention and obey the speed limit when driving near schools.

- Enforcement Guide (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/enforcement/index.cfm
- Media and Visibility Tips (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/media/index.cfm

7. Build excitement through small promotional contests and activities

Walking and bicycling to school can be a fun activity for children. Consider running a small promotional contest to get parents and students excited about walking and bicycling to school. There are many ideas that schools have used, such as walking mileage contests and punch cards, Walk to School Day and more. See if area businesses might be willing to donate small prizes or incentives.

- Examples of Mileage Clubs and Contests (National Center for Safe Routes to School): http://www.saferoutesinfo.org/guide/encouragement/mileage_clubs_and_contests.cfm
- Walk to School Day (National Center for Safe Routes to School): http://www.walktoschool-usa.org/getstarted/index.cfm

8. Apply for funding for longer-term, more costly improvements

Congress created the federal Safe Routes to School program in 2005. Hundreds of millions of dollars are available to support infrastructure improvements and non-infrastructure activities. Communities are using this funding to construct new bike lanes, pathways and sidewalks, as well as to launch Safe Routes to School education, promotion and enforcement campaigns in elementary and middle schools. Funds are administered by each state's department of transportation.

- Information on state departments of transportation Safe Routes to School programs (Safe Routes to School National Partnership): http://www.saferoutespartnership.org/state/5043


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Safe Routes to School Policies and Action Steps

The following section outlines a series of action steps and policies to implement and institutionalize Safe Routes to School. The action steps and policies addressed here can be implemented at the three different levels of the education systems: state, school district and individual school. State level policies and action steps are targeted to state boards of education, state department of education staff, legislators and state superintendents. District level policies and action steps are aimed at school board members and superintendents. Action steps and policies for individual schools are intended for principals, teachers, school staff, parents, students and community members.

It is important to note that while these policies and action steps are presented at three different jurisdictions, the most success will be found when each level works across the hierarchies to implement and institutionalize Safe Routes to School. Each action step and policy should be viewed within and coordinated with the framework of broader efforts to improve student health and wellness.

Each section is organized by topic area and includes an overview of the issue plus action steps and policies for all three levels of education policymakers and practitioners. Success stories are included throughout to illustrate the benefits of these strategies at the state, school district and individual school levels. Policy and action step matrices are provided for each topic area, offering a summarized list of policy ideas and implementation measures that can be taken to facilitate a successful and sustainable Safe Routes to School program. Each section also includes an additional resources section with a list of websites for more information and references for any citations included in the text.

The six topic areas include:

Building Effective Partnerships 26

Addressing Traffic Safety through Infrastructure and Enforcement 36

Incorporating Safe Routes to School into School Wellness Policies 44

Teaching Bicycle and Pedestrian Safety..... 50

Ensuring School Transportation Policies are Inclusive of Walking and Bicycling..... 60

Creating Neighborhood Schools and Joint Use Policies 68

Building Effective Partnerships

Effective partnerships are critical for state agencies, school districts and individual schools to leverage exciting new and expert resources to accomplish their missions. With tight budgets and strong public scrutiny, school officials are increasingly turning to partnerships to ensure the efficient use of public resources and help achieve overlapping goals of separate departments and institutions.

Safe Routes to School programs can leverage a diverse and growing set of resources to increase physical activity to improve child health, safety and learning readiness. The comprehensive nature of Safe Routes to School requires action by schools and school districts in conjunction with partnerships with public works, transportation and law enforcement agencies. Community advocates and health organizations are also frequent contributors and drivers of Safe Routes to School initiatives.

Harnessing these diverse interests through partnerships is an important part of building a successful, comprehensive Safe Routes to School program that promotes active and healthy lifestyles for young people. Partnerships with state and local government agencies can leverage financial resources from agencies that rarely consider education as their primary mission. These connections can result in improvements to school facilities and the infrastructure around the school. Fostering relationships with community organizations and businesses can also result in additional personnel and capacity to help with planning, curriculum, programs and implementation.

Safe Routes to School Partners, Roles and Contributions

State and Local Government	Develop supportive policies; provide financial support and leadership
State Education Departments and Administration	Apply for federal grant opportunities to support school wellness efforts; publish state-level curricula and content standards that include Safe Routes to School; issue guidance; connect communities to share best practices
School Board Members and District and School Administrators	Provide leadership on walking and bicycling; ensure that school and school district policies support safe and active transportation; oversee implementation and evaluation of results
Transportation and Public Works Departments	Provide infrastructure planning assistance; fund and construct infrastructure improvements; partner in applying for infrastructure funding
Law Enforcement Departments	Educate the public about school zone traffic regulations; provide enforcement in school zones; coordinate community policing to address crime and traffic dangers around schools
Health Departments	Provide research linking Safe Routes to School and health benefits; support the development of public awareness health campaigns; assist with evaluation of Safe Routes to School efforts
Community Organizations	Advocate for Safe Routes to School programs and funding; provide educational and safety content expertise; engage other community partners; connect Safe Routes to School programs to grassroots leaders
Businesses	Offer financial support, media assistance and in-kind donations such as helmets or incentives
School Teachers	Provide curriculum alignment and integration; implement walking/bicycling lessons; provide on-the-ground knowledge of schools/classrooms; champion Safe Routes to School efforts within a school; engage students in service-learning
Parents	Champion Safe Routes to School efforts within a school or community; support youth participation in Safe Routes to School; model behavior by walking and bicycling to school with children; engage other parents; present at local PTA conferences on successful Safe Routes to School programs
Students	Provide input into program design and evaluation; educate and encourage peers; participate in the program by walking and bicycling to school

State Level Partnerships

Partnerships between governmental agencies, community advocates and private business are effective in developing statewide Safe Routes to School policies and programs. Because state departments of transportation receive the federal Safe Routes to School funds but may not be familiar with education and health perspectives, most states established a state Safe Routes to School advisory committee to oversee implementation of the federally funded Safe Routes to School grant program. The most effective committees have broad representation including state departments of transportation, education and health and human services, plus relevant nonprofits that are capable of developing policy recommendations that can be adopted at the state level.

In addition, the Safe Routes to School National Partnership supports Safe Routes to School State Networks in 19 states plus the District of Columbia. These networks are focused on increasing physical activity among all students, ensuring that federal Safe Routes to School funds are spent on quality projects, leveraging additional state resources for Safe Routes to School initiatives and advocating for the removal of barriers to walking and bicycling to schools through policy initiatives. At the heart of the State Network effort is policy change—specifically working to remove policy barriers to walking and bicycling to schools by implementing complete streets, changing statewide school siting and other policies and by implementing legislation that would result in funding or policy changes. The State Networks have already engaged a range of leaders in health, transportation, education and safety organizations and can be a valuable ally for state leaders looking to develop Safe Routes to School-related partnerships.

Policymakers are increasingly mandating state-level partnerships that aim to improve student performance with diminishing resources. State agencies working with municipalities and school districts can collaborate to reduce the negative impacts of school siting and closure decisions while empowering districts and schools to run Safe Routes to School programs. Involvement of state transportation and health departments also allows for coordinated funding to achieve school-based mobility and public health standards.

Massachusetts Safe Routes to School Task Force: Building Partnerships to Serve the State

The Massachusetts Safe Routes to School Task Force, formed in November 2006, provides guidance on the development of the Commonwealth's Safe Routes to School initiatives. What started as a small group of committed members has now grown to include state agencies (representatives from state departments of transportation, education, public health and public safety), members from the Federal Highway Administration, school stakeholders (Massachusetts Elementary School Principals' Association, Massachusetts Teachers' Association, Massachusetts PTA Association),

enforcement representatives, community leaders and advocacy groups (WalkBoston and MassBike). The task force meets four times per year and helps evaluate what Safe Routes to School efforts have occurred and how to work together to enhance and expand Safe Routes to School initiatives across the state.

"The Safe Routes to School task force provides outside perspective and oversight that helps us decide where we are going and how we can connect our work with other initiatives across the state," states Ben Hammer, the State Safe Routes to School Coordinator at MassRIDES.

Task force members can also act as a catalyst for change by taking information back to their respective organizations, building an even greater support base for Safe Routes to School projects across the state. Currently, Hammer is working to expand the task force membership to include more parents and health organization representatives.

District-Level Partnerships

School boards and district administrators are uniquely positioned to leverage community support and partner with city and county officials and staff to create policy and funding streams that will advance Safe Routes to School district-wide.

Safe Routes to School provides a crossroads for intergovernmental agency partnerships. Forming a district-wide Safe Routes to School committee is a great first step. A Safe Routes to School committee can operate as a subcommittee of other school district councils, like the coordinated school health team or school health advisory council, rather than a completely separate entity. Safe Routes to School committees should have broad representation, including elected officials, public works or transportation departments, law enforcement, health departments, school district wellness representatives, parents and school board members. The Safe Routes to School team can form new and improved health and wellness policies, spur infrastructure improvements and improve traffic safety by working with law enforcement. In turn, school districts may opt to become plugged into community transportation, development, planning, health policy and resource allocation planning processes, all which can directly benefit schools and student performance.

In addition, the growth of health impact assessments (HIA) is an opportunity for school districts to engage support and collaboration from local public health agencies, institutions of higher education and community members. HIAs evaluate the potential health effects of policies, plans or projects in order to inform decision-making. A number of HIA tools exist for evaluating active transportation projects, some involving student or community participation in traffic counts, hazard assessments, photo documentation, air quality sampling and community surveys. An HIA could be a powerful assessment of the potential for new Safe Routes to School

The Safe Routes to School team can form new and improved health and wellness policies, spur infrastructure improvements and improve traffic safety by working with law enforcement. In turn, school districts may opt to become plugged into community transportation, development, planning, health policy and resource allocation planning processes, all which can directly benefit schools and student performance.

programs by describing the impact of Safe Routes to School programs on pedestrian and cyclist safety, air quality, traffic levels, physical activity levels and more. Many public health agencies are eager to engage with this rapidly emerging area of evaluation.

South Carolina's Safe Routes to School Act: From Policy to Partnership

The 2004 South Carolina Safe Routes to Schools Act (A307, R28, H4740) requires municipal and county governing bodies to work with school districts to identify barriers and hazards to students walking or bicycling to and from school. These governing bodies may then develop a plan for the funding of improvements, with the sources of funds to include federal funding or grants and state or private funding. It encourages each school district to establish a Safe Routes to School District Coordinating Committee and Safe Routes to School Team to include parents, students, teachers, administrators, local law enforcement officials, public health officials and interested citizens. Functions of the committee and team are outlined in the statute. It also designates the first Wednesday of October as "Walk or Bicycle with Your Child to School Day" in each school district.[45]

Jackson, Michigan: City, School and Nonprofit Partnerships Increase Walking and Bicycling

Scott TenBrink, Executive Director of the Fitness Council of Jackson, is currently working with four school districts and one charter school in the Jackson area to implement Safe Routes to School, with most of the work being done in conjunction with the Jackson Public School District (JPS). TenBrink keeps active transportation to and from school on the district's radar by sitting on its Coordinated School Health Council. The district is also a member of the Walkable Communities Task Force (Task Force). The Task Force is made up of a diverse group of health and community development leaders and brings together representatives from the schools and local government.

"Bringing the school districts and local government together with our Task Force has been one of our biggest accomplishments," notes TenBrink. "Our Safe Routes to School programs are a great reflection of these two bodies working together." TenBrink observes how important it is for school districts and local government to work together, since not all infrastructure projects are located on school property.

TenBrink reports that the Walking School Bus program has shown success in getting students walking to school, especially in the Jackson Arts & Technology Academy. Between 2004 and 2007, the percent of students walking and bicycling to Jackson Arts & Technology Academy doubled, from approximately 15 percent to 30 percent of students. TenBrink attributes the success of the program at this school to having teachers, parents and school staff act as walking school bus leaders. "In our experience, students are much more motivated to get up and walk to school if they are walking with someone they are connected to through the school or community."

School-Level Partnerships

Schools are a central institution for every community. Similar to the district level, individual school Safe Routes to School teams can kick-start a program by providing much needed resources such as person-time and funding to plan and implement a Safe Routes to School initiative. These teams can be initiated by schools or outside organizations, but should include teachers and staff, parent organizations, community groups and municipal agencies.

As school teams start their work, data should inform decision-making and action step prioritization. Using school assessment tools like the Center for Disease Control and Prevention's School Health Index or the Alliance for a Healthier Generation's Healthy Schools Builder Framework can help the school team collect information and prioritize potential action steps for a comprehensive Safe Routes to School initiative. The team should ensure that their plans and priorities tie into to any school district Safe Routes to School committees.

Germantown, Tennessee: Active PTA Helps to Increase Walking and Bicycling
The monthly walk and bicycle to school event at Farmington Elementary is in its second year. Chris Shumaker, the assistant principal, reports that the event has grown significantly in popularity from last year to this year. He cites increased promotion of the event and the amount of student recognition as two key factors for the increase in popularity. For example, students receive stickers, sign a banner and are recognized in the morning announcements when they participate in the monthly walk to school event.

However, Shumaker gives a lot of the credit for the event's ongoing success to the initiative of the school's PTA. "Germantown is an active community, especially in the neighborhood that feeds Farmington. We are a neighborhood school with a city park adjacent to our building. With such an active community, and the increased national focus on physical activity and school health, we had parents chomping at the bit to get involved," states Shumaker. The PTA is vital in maintaining the school's partnerships with other organizations in the community, like the Parks Department and law enforcement that provide support for the monthly event.

Farmington Elementary hopes to keep building on the momentum from the past two years. The school has started tracking the number of students who walk and bicycle to school and has observed an increase in students walking and bicycling throughout the year—not just on days when the monthly event takes place. Shumaker notes that participation in the monthly events continues to grow as well. "We were surprised to see an increase even during the winter months. Our highest month on record was April 2010 at over 200 walkers and cyclists! We are hopeful for 250 participants in the May 2010 event."

Individual school Safe Routes to School teams can kick-start a program by providing much needed resources such as person-time and funding to plan and implement a Safe Routes to School initiative. These teams can be initiated by schools or outside organizations, but should include teachers and staff, parent organizations, community groups and municipal agencies.

Alameda County, California: Forging Partnerships to "Transform" Schools

Nora Cody is a Program Director at TransForm, the lead agency for the Safe Routes to School program in Alameda County, California. The program helps schools and communities implement Safe Routes to School. An important part of their work is helping each city in Alameda County develop partnerships between schools and law enforcement, health departments, public works, neighborhood associations, community organizations and advocacy groups.

Cody reports that they are currently working to gain greater involvement from faith-based communities and after-school programs, but that the key to engaging new partners is listening. "It's important to know why your partners want to be involved in the schools, and what they want to get out of it. This includes getting media to walk to school events so elected officials have the opportunity for a photo-op with the students."

TransForm recently awarded $1,000 mini-grants to schools to increase walking and bicycling. One school that received a grant developed creative partnerships as a result of the grant. Cody notes, "One school was located near two busy streets. Older students would hang out on the street corners, and there was gang violence as well, so the younger students didn't feel safe walking or bicycling. The Safe in My Neighborhood project partnered with the local merchants that were located along this particular street. They made signs that let students know that establishment was a safe place, a place they could duck into quickly if they felt like they were in trouble."

Safe in My Neighborhood is a great example of how successful partnerships can help engage organizations and businesses in removing the barriers that keep students from safely walking and bicycling to school.

Matrix of Policies and Action Steps: Partnerships

State-Level Partnerships	**Policies** • Establish a state Safe Routes to School advisory committee with broad community and agency representation to provide input on implementation of the federally-funded Safe Routes to School program, help develop policy recommendations that can be adopted at the state level, evaluate grant applications, make recommendations for funding awards and report to the state legislature on the impact of the program on rates of walking and bicycling to and from school.
	Action Steps • Encourage each school district to establish a Safe Routes to School district coordinating committee or a subcommittee of an existing school health advisory committee or wellness committee. It should include parents, students, teachers, administrators, local law enforcement officials, public health officials and interested citizens. The committee should work with Safe Routes to School teams at the local school level.
District-Level Partnerships	**Policies** • Establish a district-wide Safe Routes to School committee, or a subcommittee of the school health advisory committee or wellness committee, with broad community and agency representation with the goals of improving health and wellness policies, funding infrastructure improvements and leveraging education and enforcement campaigns. Encourage the local municipality to also adopt this committee as an advisory body. • Ensure that the school district and individual schools consistently use data and assessment tools to drive decision-making and priorities on Safe Routes to School.
	Action Steps • Develop productive relationships with key city or county agencies, including public works and law enforcement, so that the Safe Routes to School plan and implementation is able to address infrastructure and traffic issues throughout the district. • Apply for federal or state Safe Routes to School funding in partnership with municipal agencies and community organizations. Ensure that Safe Routes to School grant applications include ownership and endorsements by both the school district and the local government. • Partner with an institution of higher education and a local public health agency to conduct a health impact assessment as part of Safe Routes to School evaluation process. • Engage students and community members in the process of assessing their environment through traffic counts, hazard assessments, photo documentation, air quality sampling and community surveys.
School-Level Partnerships	**Policies** • Establish a school Safe Routes to School team, or a sub-team of the existing coordinated school health or wellness team, with teachers and staff, parent organizations, community groups and district level wellness team members.
	Action Steps • Develop a Safe Routes to School action plan, including bringing in community resources to run new curriculum and encouragement campaigns that increase safety and skills needed to increase walking and bicycling to school. • Coordinate with teachers to conduct classroom or school-wide activities that increase excitement among students for healthy and active transportation. Provide opportunities for service learning and positive youth development. • Apply for federal or state Safe Routes to School funding, using recommendations from Task Force's action plan.

Additional Resources

Building partnerships:

- State Safe Routes to School Networks (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/state/network**
- School Health Advisory Councils (American Lung Association): **http://www.cancer.org/docroot/PED/content/PED_13_2x_School_Health_Councils.asp**
- Toolkit for School Wellness Councils (Alliance for a Healthier Generation): **http://www.healthiergeneration.org/uploadedFiles/For_Schools/Helpful_Tools/08Toolkit_SWC.pdf**

Health impact assessments:

- Health Impact Assessments (Centers for Disease Control and Prevention): **http://www.cdc.gov/healthyplaces/hia.htm**
- Health Impact Assessment Clearinghouse (UCLA): **http://www.ph.ucla.edu/hs/hiaclic/**

Tools to assess the school environment:

- School Health Index (Centers for Disease Control and Prevention): **https://apps.nccd.cdc.gov/shi/default.aspx**
- Healthy Schools Builder (Alliance for a Healthier Generation): **http://www.healthiergeneration.org/builder/builderlogin.aspx**

More information on highlighted success stories:

- Safe Routes to School Alameda County Partnership (TransForm): **http://transformca.org/sr2s**
- South Carolina Safe Routes to School Act: **http://www.scstatehouse.gov/sess115_2003-2004/bills/4740.htm**

References

45 South Carolina Safe Routes to School Act, A307, R428, H4740. (2004).

Addressing Traffic Safety through Infrastructure and Enforcement

The number of students ages 5 to 18 being driven or driving themselves to and from school has increased nearly three-fold, from 20 percent in 1969 to 55 percent in 2001.[46] This tremendous increase in the amount of traffic near schools creates major safety concerns for those students who do walk and bicycle to school and dissuades other parents from allowing their children to do so.

A major change that has impacted the number of students who walk and bicycle to school is the dramatic rise in automobile traffic. The number of students ages 5 to 18 being driven or driving themselves to and from school has increased nearly three-fold, from 20 percent in 1969 to 55 percent in 2001.[46] This tremendous increase in the amount of traffic near schools creates major safety concerns for those students who do walk and bicycle to school and dissuades other parents from allowing their children to do so. While traffic has been cited as a major barrier to walking and bicycling to school, other barriers include distance from home, lack of sidewalks or routes to school, weather, safety concerns and not having anywhere to secure student bicycles.[47]

Reducing and calming traffic around school zones and in adjacent neighborhoods and providing students with safe and separate spaces for walking and bicycling are key initiatives for Safe Routes to School programs. In fact, at least 70 percent of each state's Safe Routes to School funding must be used on improving the built environment within two miles of a school. Improving sidewalks, completing a multi-use trail or improving street crossings all help to "engineer" an environment around schools that makes active transportation safe, comfortable and convenient.

Changes to the infrastructure around schools are most effective when paired with enforcement activities such as increased speed limit enforcement and use of community crossing guards. Law enforcement officers can provide this type of assistance in order to shift the behavior of drivers in school zones. As such, public safety and law enforcement professionals are key collaborators in any successful Safe Routes to School initiative, and school resource officers, traffic units or precinct officers are the places to start.

State-Level Infrastructure and Enforcement

Local Safe Routes to School initiatives require partnerships between school districts and local governments. State boards of education and education policymakers can support local efforts by encouraging or requiring local governments to work with school districts on Safe Routes to School initiatives. State-level education leaders can also work with state departments of transportation and state law enforcement agencies to analyze and make available data on crash history, traffic volumes and traffic speeds around schools.

Legislatures and state boards of education can also require or recommend laws and policies that provide additional resources to make infrastructure and enforcement improvements around schools. School zone legislation can provide strong protection for students walking and bicycling by broadening the radius of school zones, decreasing speed limits and increasing fines for violators. Increased fines collected for school zone violations can be directed to fund community-wide Safe Routes to School programs and infrastructure.

Safe Routes to School infrastructure projects are most frequently funded from federal transportation dollars available through state departments of transportation, but several states have created expanded programs that include state and local funding sources. One innovative and long-term approach is to use a small percentage of state or local school bus funds or traffic fines to make infrastructure improvements to increase safety of pedestrians and cyclists. Another means is to pass a "complete streets" policy to ensure that all transportation projects and plans across the state address the needs of all users—including bicyclists and pedestrians—when designing streets.

Washington: School Zone Safety Improvement Project
In May 1996, the Washington State Legislature enacted legislation (RCW 46.61.440) that doubled the monetary penalty for speeding in school crosswalk and playground zones. The legislation was in direct response to community and citizen concerns. Half of the doubled fine is deposited into a school zone account used only by the Washington Traffic Safety Commission (WTSC) to fund projects in local communities to improve school zone and/or student transportation safety.

WTSC is able to award approximately $1 million in grants each year to local communities with funds derived entirely from driver fines. Projects can include funds for law enforcement to aggressively enforce school zone speed limits, public education campaigns, minor engineering enhancements such as signage and funding for school zone improvement projects.[48]

To address traffic safety concerns, school districts must develop strong partnerships with local government agencies and law enforcement. Together, these partners can work on a variety of policies that support Safe Routes to School traffic safety improvements.

District-Level Infrastructure and Enforcement

Infrastructure and enforcement concerns are generally a top priority for Safe Routes to School initiatives. To address traffic safety concerns, school districts must develop strong partnerships with local government agencies and law enforcement. Together, these partners can work on a variety of policies that support Safe Routes to School traffic safety improvements. Examples include city or county policies that require residential and commercial developers to build sidewalks, bike lanes and connections to schools as part of their projects or developing and implementing policies that reduce speeds near schools and deploy crossing guards and law enforcement at the most dangerous intersections.

These partners can also work together to identify funding sources for Safe Routes to School infrastructure and enforcement improvements throughout the school district. Funding sources can include federal Safe Routes to School funds or the creation of more consistent funding through local bond initiatives, taxes or fees.

It is important to remember that while Safe Routes to School education, encouragement and enforcement programs can be implemented in the first year, engineering is a longer-term strategy. Quick-fix engineering solutions should be pushed for completion in the first year; larger new routes and paths and traffic calming require longer-term advocacy and ongoing work with local transportation officials who maintain the roads.

Arlington County, Virginia: Prioritizing School Safety Improvements in the County Budget

The county of Arlington, Virginia supports its Safe Routes to School infrastructure improvements with county funds, including more than $2 million in capital improvements funds from transportation bonds. The initiative, launched in 2001, also receives state and federal grants.

County transportation and environmental services staff worked closely with school administrators and staff to create more pedestrian-friendly environments at and around the district's thirty-two public schools. Most of the changes involved improving signage and markings at crosswalks and in school zones. Adjustments were also made to school district and County operating policies and procedures regarding snow removal, on-street parking and traffic signal timing.

Enforcement efforts by County Police and Sheriff's Departments have focused on speeding, illegal turning, illegal parking and security near Arlington County schools. David Goodman, Bicycle and Pedestrian Programs Manager at Arlington County's

Department of Environmental Services, tells of a successful semi-annual regional campaign called "Street Smart." The initiative strives to increase awareness among drivers about pedestrians and steps up police enforcement. While it is focused on pedestrian safety in general, Goodman reports it can also help students walk and bicycle to school safely. County police also work with the school system to target motorists passing stopped school buses.

Steve Larson, acting Director of Transportation at Arlington Public Schools, has noticed that more students are walking and bicycling to school in Arlington County. He believes the infrastructure improvements and enforcement initiatives have contributed, as has teaching bicycle and pedestrian safety as part of the middle and high school physical education curriculum. However, Larson further attributes the increase to a culture shift among students and their families. "People are starting to think about how their actions impact their environment," he reports. Larson states that there has also been an increase in the number of students taking public transportation to and from school.

Arlington County is planning for this trend to continue, as Larson reports that the new high school currently being built has enough parking for nearly 300 bicycles. Larson looks forward to the day when all of those spaces will be occupied by student bicycles.

Hernando, Mississippi: City Ordinances and Urban Renewal Plans Help Students Walk and Bicycle to School

Chip Johnson, mayor of Hernando, located in the Delta region of Mississippi, observes that "Mississippi is the fattest state in the fattest nation in the world at the fattest time in all of history, and the Delta is the fattest area of our state." To reverse that trend, Mayor Johnson is implementing policies and ordinances that help make Hernando a more walkable community. For example, in Hernando, any new construction or renovation must include sidewalks. Developers are also required to provide green spaces that are accessible and aesthetically pleasing. Most recently, in April 2010, the city also passed a "complete streets" policy to ensure that all future road planning, construction and maintenance addresses the needs of all users—including drivers, bicyclists and pedestrians. These design standards are just one aspect of the smart growth policies that are guiding the work in Hernando.

An important part of that effort is working with the school district and community residents to increase walking and bicycling to school. Shelly Johnstone, Director of Community Development for Hernando, observes that "A major concern of our community members is how safe it is for their kids to walk to school. We do deal with some hazard busing issues, and drugs and crime in an area near one school."

Hernando has received a $464,373 Safe Routes to School grant to build a mile-long stretch of sidewalks and streetlights along a major thoroughfare where a 13-year old was struck and killed while walking to a school bus in 2008. The city, school district and law enforcement are planning to step up crossing guard patrols, and are working together to get buy-in and support from neighbors who live in the neighborhood to encourage them to step out on their porches to watch over the students as they walk and bicycle to and from school.

School-Level Infrastructure and Enforcement

Individual schools take the lead in determining Safe Routes to School needs and strategies for their communities. Schools across the country have used Safe Routes to School as an opportunity to engage parents, municipal government agencies and local organizations. Infrastructure improvements and enforcement at schools that calm traffic and improve safety benefit not only students and staff, but also neighbors, the elderly and individuals with disabilities. Safe Routes to School is a movement that can unite multiple stakeholders with common interests in safe travel and healthy communities.

Portland, Oregon: Infrastructure and Enforcement Ease Parental Fears at Vestal Elementary

Vestal Elementary School is located along a busy street, and data indicated that it had more crashes, injuries and fatalities than any other street in all of Portland. Rightly so, parents at Vestal Elementary had major concerns about their children walking or bicycling to school. With the help of a city engineer, the Portland Safe Routes to School program made a number of infrastructure improvements to make it safer for students to walk and bicycle, such as the installation of refuge islands in crosswalks, the removal of parking near sidewalks and the installation of traffic diverters to prevent motorists from driving the wrong way on one-way streets.

The Portland Police Department also increased patrols near Vestal, as well as at 100 other schools, during the second week in September of 2009 as a part of their Back to School enforcement missions. During that week, officers wrote more than 1,000 citations, most of which were for speeding in a school zone.

The infrastructure and enforcement efforts at Vestal Elementary have had positive results, with crash data showing a steady decrease in the number and severity of crashes near the school. Parents' safety concerns have also been eased as a result of the infrastructure improvements. In a recent parent survey, one parent noted "I enjoy walking my child to school! I am pumped that the school is attempting to make it a safe and enjoyable part of our lives. Thank You!"

Matrix of Policies and Action Steps: Infrastructure and Enforcement

State-Level Infrastructure and Enforcement	**Policies** • Pass "complete streets" policies, which ensure that transportation planners and engineers address the needs of all users—including bicyclists and pedestrians—when designing streets. • Pass policies to reduce speed limits and raise fines in school zones. 19 states have laws that impose additional sanctions on drivers who speed in school zones. Dedicate fine increases to fund Safe Routes to School programs and infrastructure. • Expand the radius protected by school zones into the neighborhoods adjacent to schools.
	Action Steps • Work with the state department of transportation to do regular analyses of crash data around schools and to develop an action plan to improve safety. • Work with the state department of transportation to make the case for including Safe Routes to School activities and infrastructure improvements in state plans for allocating federal safety funds. • Encourage municipal and county governing bodies to work with school districts to identify barriers and hazards to students walking or bicycling to and from school and develop plans for funding improvements.
District-Level Infrastructure and Enforcement	**Policies** • Develop local taxes, fees or bond initiatives that direct proceeds to school district sidewalks, bikeways and Safe Routes to School programs. • Pass a policy requiring that each school within the district have an evaluation of the layout of school grounds and traffic flow on campus to allow for safe access by pedestrians and bicyclists that is separated from automobile and bus traffic. • Partner with local government to pass policies that ensure that developers include sidewalks, crosswalks, bicycle lanes and connections to schools in their development plans. Make route analysis of the trip to school a required part of a developer's concept for residential projects within one mile of school sites. • Work with local government to pass "complete streets" policies to ensure that transportation planners and engineers address the needs of all users—including bicyclists and pedestrians—when designing streets. • Work with local government to place crossing guards at intersections with the highest safety concerns.
	Action Steps • Partner with local law enforcement to patrol areas around schools during arrival and dismissal and place crossing guards at critical intersections. • Partner with local government on comprehensive assessments of infrastructure around schools and/or a health impact assessment to prioritize improvements. • Adjust dismissal times so that students walking and bicycling get a head start and are able to take a different path than cars and buses. • Ensure that bike racks are available at the front of schools. • Apply for federal or state Safe Routes to School funding in partnership with municipal agencies and community organizations.
School-Level Infrastructure and Enforcement	**Policies** • Incorporate Safe Routes to School into the responsibilities of school health advisory councils to help with data collection, prioritize actions, apply for grant opportunities and assist in collaborative efforts and communication.
	Action Steps • Survey parents and students to find out current commuting habits and identify barriers to active transportation. • Engage students and families in a "walkabout" to assess traffic safety issues and needed infrastructure improvements around the school—which can be a part of service learning opportunities for students. • Make sure that bike racks are available at the front of the school, and that students are encouraged to wear helmets when bicycling. • Apply for state or federal Safe Routes to School funding to support a comprehensive Safe Routes to School initiative at the individual school addressing all five E's.

Additional Resources

Policies creating infrastructure for safe walking and bicycling:

- Complete streets policies (National Complete Streets Coalition): **http://www.completestreets.org/**
- *Local Government Actions to Prevent Childhood Obesity* (Institute of Medicine): **http://www.iom.edu/Reports/2009/ChildhoodObesityPreventionLocalGovernments.aspx**

Assessing infrastructure:

- Walkability checklist (National Center for Safe Routes to School): **http://drusilla.hsrc.unc.edu/cms/downloads/walkabilitychecklist.pdf**
- Engineering guide (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/guide/engineering/index.cfm**
- *Safe Routes to School: Putting Traffic Safety First* (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf**

School zone safety and enforcement:

- Speed limit fine increases (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/state/bestpractices/finebasedfunding**
- Enforcement Guide (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/guide/enforcement/index.cfm**
- Safe Routes to School for Law Enforcement (National Highway Traffic Safety Administration): **http://www.saferoutesinfo.org/lawenforcement/**
- Adult school crossing guard guidelines (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/guide/test/test.cfm**

More information on highlighted success stories:

- Washington law doubling crosswalk fines (Washington State Legislature): **http://apps.leg.wa.gov/rcw/default.aspx?cite=46.61.440**
- Washington school zone safety grants and information (Washington Traffic Safety Commission): **http://www.wtsc.wa.gov/**
- WALKArlington (County of Arlington, Virginia): **http://www.walkarlington.com/walkable/saferoutes.html**
- Portland Safe Routes to School (City of Portland, Oregon): **http://www.portlandonline.com/TRANSPORTATION/index.cfm?c=40511**

References

46 Ham, S.A., Martin, S., & Kohl, H.W. III. (2008). Changes in the percentage of students who walk or bike to school- United States 1969 and 2001. *Journal of Physical Activity and Health,* 5, (2), 205-215.

47 Young, D. R., Felton, G. M., Grieser, M., Elder, J. P., Johnson, C., Lee, J.S. et. al. (2007). Policies and opportunities for physical activity in middle school environments. *The Journal of School Health,* 77, (1), 41-47.

48 Revised Code of Washington, 46.61.435, (1996).

Incorporating Safe Routes to School into School Wellness Policies

The Maryland Department of Education's state level wellness policy contains an objective that schools will collaborate with community agencies to enhance physical education and physical activity efforts. The policy encourages schools to fulfill the goal by collaborating with other state agencies and organizations to develop programs to encourage students and staff to walk or bicycle to and from school."[50]

One of the many national initiatives addressing childhood obesity is the Child Nutrition and WIC Reauthorization Act of 2004, which mandates that all school districts participating in the National School Lunch Program have a local wellness policy.[49] It outlines five content areas to include in the wellness policy: 1) goals for nutrition education, physical activity and other school wellness programs; 2) nutrition guidelines for foods provided at school; 3) assurance that guidelines for school meals meet United States Department of Agriculture (USDA) guidelines; 4) a plan for monitoring the policy; and 5) involvement of parents, students, representatives of the school food authority, the school board, school administrators and the public in the development of school wellness policy content. The specifics of the wellness policies remain flexible, allowing local schools and districts to develop policies based on local needs and resources.

Effective school wellness policies address not just physical education time, but also physical activity both during school and outside school time. Programs like Safe Routes to School can facilitate physical activity levels outside of school by teaching and encouraging safe walking and bicycling behaviors, and making changes to the built environment around the school that enable children to walk and bicycle more often. Safe Routes to School programs can also partner with after-school providers, such as recreation centers, parks departments and local YMCA's to further bolster the opportunities for physical activity outside of the school day. Local wellness policies have proven to be excellent ways to incorporate and institutionalize Safe Routes to School programs as part of efforts to increase physical activity.

State-Level Integration of Safe Routes to School into Wellness Policies

State-level policymakers can provide leadership on wellness policies by issuing guidance and sample wellness policies that have a strong physical activity component, including solutions like Safe Routes to School programs. State departments of education and state boards of education can also monitor implementation of wellness policies across school districts to ensure that both nutrition and physical activity goals are being met and to identify areas where additional state resources could be of assistance.

California School Boards Association: Prioritizing Safe Routes to School in Wellness Policies

The California School Boards Association (CSBA) is taking leadership on Safe Routes to School, and has issued a series of resources to help school boards across the state incorporate Safe Routes to School into their policies and practices. CSBA has issued a policy brief outlining the role of school boards in Safe Routes to School, which includes setting direction, establishing a structure, supporting staff during implementation, providing leadership and ensuring accountability. In addition, CSBA provided model administrative regulations and school board policies that can be easily adopted by school boards and school districts. Finally, CSBA is a part of the California Safe Routes to School state network, ensuring that they are at the forefront of implementation of the Safe Routes to School program and state-level policy change.

The sample school board policy recommends inclusion of strategies on walking and bicycling in the district's school wellness policy or comprehensive safety plan. A portion of the sample language recommended by CSBA reads, "The Governing Board recognizes that walking, bicycling and other forms of active transport to school promote students' physical activity and reduce vehicle traffic and air pollution in the vicinity of schools. As part of the district's coordinated approach to supporting student wellness and safety and enhancing student learning, the Superintendent or designee shall develop and implement strategies to establish and promote Safe Routes to School program activities." The sample policy lays out further details on implementation and accountability.

District-Level Integration of Safe Routes to School into Wellness Policies

Wellness policies outline the school district's priorities on student nutrition and physical activity levels. By including Safe Routes to School language in district wellness policies, school districts are creating a vehicle for increasing physical activity levels. The wellness policy language should detail a comprehensive approach on Safe Routes to School, including education and encouragement programs to change habits and infrastructure and enforcement improvements to increase safety. It is important that the school district's wellness committee or school health advisory committee take ownership of implementation of the strategies identified in the wellness policy, and evaluate the impact of the policies.

Sample wellness policy language for school districts:

The school district will assess and, if necessary and to the extent possible, make needed improvements to make it safer and easier for students to walk and bicycle to school. When appropriate, the district will work together with local public works, public safety and/or police departments in those efforts. The school district will explore the availability of federal "safe routes to school" funds, administered by the state department of transportation, to finance such improvements.[51]

Billings, Montana: District Health Advisory Council Writes Policy to Include Safe Routes to School

Kathy Aragon began her bicycle and pedestrian advocacy work at her children's school more than 10 years ago. A physical therapist by training, she understood the importance of physical activity, and got involved with other parents for the annual walk and bike to school day event. She had a friend on the school board, and when a seat opened up, Aragon began her work as a school board member.

Aragon recalls that, "when the legislation came down that all schools needed a wellness policy, we advocated for a high level model for our district, but we ended up adopting one that was more bare-bones. But, this ended up being great because we requested a district school health advisory council that could give the policy some teeth. A policy is just words on paper if there is no implementation."

As one approach to bring more specificity to the effort, the school health advisory committee drafted a fitness resolution that is a part of the Billings Public School District's wellness policy. Along with other activities, the resolution states that schools should encourage walking and bicycling to school whenever possible, and Safe Routes to School is suggested as a means to accomplish this.

Aragon reflects that, "implementation is always a problem, but things are starting to change. At my kids' school the PTA has done away with selling sweets and candy; opting for more healthy fundraisers. The school replaced the unhealthy fundraisers with an International Walk to School Week. Neighbors and families of the school pledge a donation for every day they walk and bike to school that week."

Aragon sees it as the job of parents, community members and the school board to make the trip to school as safe as possible for children walking and bicycling. "Safe Routes to School is a good model for school districts. Advocating for the five E's ensures you are doing everything you can to make the school environment safe for those kids who already walk and bike."

School-Level Integration of Safe Routes to School into Wellness Policies

Schools play an important role in implementing their district wellness policies. Specific to Safe Routes to School, school leaders can build messages about walking and bicycling to school into health curricula, physical education lessons, events, newsletters and school announcements. It is important to institutionalize Safe Routes to School within the responsibilities of appropriate school staff and committees.

Newark, Delaware: "Walking to Win" at Brader Elementary School

The wellness policy for Christina School District in Delaware states that all schools will work toward 150 minutes of physical activity per week. Many schools in the district—including Brader Elementary in Newark—are working with the Alliance for a Healthier Generation's Healthy Schools Program to implement the wellness policy. Mary Beth French, Brader Elementary's physical education teacher states that, "Safe Routes to School is a program that the Alliance and the district share with all schools as a way of meeting the 150 minute goal."

French reports that federal Safe Routes to School funds have allowed Brader Elementary to repair sidewalks and hold a number of encouragement activities for the students. At the beginning of the year, students are given Safe Routes to School punch cards. Each morning, "safety patrol" students greet students who walk and bicycle to school and add a punch to the card. When their punch cards are filled up, students turn them in for prizes that are raffled off periodically. Students who live too far to walk or bicycle can earn punches by walking a course set up at the school. Students are encouraged to get as many cards filled as possible to have the best chances of winning a bicycle that is raffled off in the spring.

For French, the best part of the Safe Routes to School program is being able to get parents and the community involved. She states, "We get to show parents this is what we are doing to help keep their kids healthy. When parents see this, they want to get involved and now we have parents that serve on our school wellness board. Our work with Safe Routes to School has given us the momentum to take on other projects as well. We have started a school garden and even have some parental education classes like nutrition night." All of these activities help to strengthen the community around the school, and create a group of dedicated people that will continue the legacy from year to year.

All of the work at Brader Elementary has really paid off. French reports a decrease in the number of students being driven to school, which "has really helped with the traffic flow during arrival and dismissal." Also, French reports that she has noticed more and more students walking together to and from school this year. The bicycle hanging from the ceiling in the school lobby is a tangible reminder of Brader Elementary's commitment to keeping its students healthy and active.

Matrix of Policies and Action Steps: Integration of Safe Routes to School into Wellness Policies	
State-Level Integration of Safe Routes to School into Wellness Policies	**Policies** • Issue guidance and sample school wellness policies that are inclusive of Safe Routes to School as a strategy for increasing physical activity.
	Action Steps • Ensure that the state department of education has a staff person charged with liaising with other state departments (including the state department of transportation) to coordinate guidance and support on development and implementation of wellness policies. • Encourage school districts to adopt wellness policies that address student and school employee wellness through a coordinated school health approach that includes guidelines to provide physical activity opportunities for students before, during and/or after school—including programs such as Safe Routes to School. • Periodically assess the implementation of wellness policies across schools in the state to see if wellness goals are being achieved.
District-Level Integration of Safe Routes to School into Wellness Policies	**Policies** • Incorporate Safe Routes to School and active commuting to school in the district's wellness policy as a means of increasing physical activity levels. • Ensure that the school district's wellness committee or school health advisory committee includes Safe Routes to School in its policies and priorities.
	Action Steps • Educate each school's administrator on the local district wellness policy and Safe Routes to School implementation expectations. Provide resources and curriculum goals to help with implementation. • Explore the availability of grant funds and other sources of funding to support implementation of wellness policies that include Safe Routes to School projects and activities.
School-Level Integration of Safe Routes to School into Wellness Policies	**Policies** • Institutionalize Safe Routes to School within the responsibilities of staff and committees that work on school wellness policies and activities. • Include health and physical education teachers on school health advisory councils or other bodies that review or implement wellness policies.
	Action Steps • Build messages about bicycling and walking into health curricula, physical education lessons, newsletters, school announcements and events. • Raise funds for school wellness activities by asking neighbors and supporters to pledge money for the miles students walk and bicycle to school.

Additional Resources

School wellness councils:

- Toolkit for School Wellness Councils (Alliance for a Healthier Generation): **http://www.healthiergeneration.org/uploadedFiles/For_Schools/Helpful_Tools/08Toolkit_SWC.pdf**
- School Health Advisory Councils (American Lung Association): **http://www.cancer.org/docroot/PED/content/PED_13_2x_School_Health_Councils.asp**

Wellness policies:

- Local Wellness Policies (U.S. Department of Agriculture): **http://www.fns.usda.gov/tn/Healthy/Wellnesspolicy.html**
- Safe Routes to School-specific models and state recommendations (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/state/bestpractices/wellnesspolicies**
- Model school wellness policies (National Alliance for Nutrition and Activity): **http://www.schoolwellnesspolicies.org/**
- Wellness policy tool (Action for Healthy Kids): **http://www.actionforhealthykids.org/school-programs/our-programs/wellness-policy-tool/**
- Wellness policy assessment tool (Yale University Rudd Center): **http://www.wellsat.org/**

More information on highlighted success stories:

- *Making Wellness Work—A Guide to Implementing and Monitoring School Wellness Policies in Maryland* (Maryland Department of Education): **http://www.marylandpublicschools.org/MSDE/programs/school_wellness/mww**
- California sample wellness policies on physical activity, physical education and Safe Routes to School (California School Board Association): **http://www.csba.org/EducationIssues/EducationIssues/Wellness/PhysicalActivity.aspx**
- Billings wellness policy (Billings Public School District): **http://www.billingsschools.org/?page=dp_d&Group=School%20Board&ID=197&DP=School%20Wellness**

References

49. United States House of Representatives. (2004). Child and WIC Reauthorization Act of 2004. Vol Public Law, 108-4981.
50. Policy component: Physical education/physical activity, http://www.marylandpublicschools.org/NR/rdonlyres/7C62B6EE-4733-48A4-B1D6-CDD8F908E887/20578/Section_5_Physical_Education.doc (Accessed April 26, 2010).
51. Safe Routes to School National Partnership, "Wellness Policies," http://www.saferoutespartnership.org/state/bestpractices/wellnesspolicies (Accessed April 26, 2010).

Teaching Bicycle and Pedestrian Safety

Parents overwhelmingly support bicycling and walking as a healthy childhood activity. However, far too often parents cite safety concerns as a top barrier to their children walking and bicycling to school.[52] While infrastructure improvements such as bicycle routes, sidewalks, crosswalks and traffic calming measures address deficits in the physical environment, many students lack the basic traffic safety skills and experience to ensure safe, comfortable walking and bicycling.

Bicycle and pedestrian safety curricula and lesson plans provide the opportunity to improve safety and physical activity. Skills gained from pedestrian and bicycle safety curricula will not only benefit students as they commute to and from school, but also provide them with the knowledge and skills to be physically active throughout their lifetime.

Many bicycle and pedestrian skills programs and curricula meet the National Physical Education Standards of demonstrating competency in motor skills and movement patterns, participating in physical activity, achieving and maintaining a health-enhancing level of physical fitness, exhibiting responsible personal and social behavior and values physical activity for health, enjoyment, challenge, self-expression and/or social interaction. Safe Routes to School programs may also meet the National Health Education Content Standards including opportunities to demonstrate safe decision-making, self-management and advocacy skills.

The federal Safe Routes to School law requires that between ten and 30 percent of each state's federal Safe Routes to School funds must be used for non-infrastructure programs such as education, encouragement and traffic enforcement. States, districts and communities should maximize the use of these and other funds to support increased physical activity and improve learning for students.

State-Level Bicycle and Pedestrian Safety Instruction

The growing number of studies demonstrating links between physical activity and student achievement has helped make the case for providing physical education programs in schools. In response to the evidence on physical activity levels and obesity rates in children, many state legislatures have reinstated mandatory physical education or increased the minimum minutes of physical education in elementary schools.

State boards and departments of education have implemented physical education and health education content standards that can be met with bicycle and pedestrian safety education programs. State education agencies can provide physical education teacher training guidelines for these subject areas as well as curricula and professional development opportunities. Some state departments of transportation are using federal Safe Routes to School funds to contract with bicycle and pedestrian safety organizations to provide assistance to local schools seeking to teach these important safety skills.

Selected examples of state laws on physical education and physical activity in schools

Florida: Statute **1003.455** (2007) requires each school district board to provide 150 minutes of physical education each week for students in kindergarten through fifth grade. Beginning with the 2009-10 school year, it requires the equivalent of one class period per day of physical education for at least one semester each year in sixth through eighth grade.

Louisiana: RS **17:17.1** (2004) requires each public elementary school to provide a minimum of 30 minutes each school day of quality moderate to vigorous physical activity for students.

Mississippi: Code **37-13-134** (2007) requires school districts to provide 150 minutes of physical education and 45 minutes of health education each week, based on state standards, for students in kindergarten through eighth grade.

Oregon: HB **3141** (2007) requires at least 150 minutes per week of physical education for students in kindergarten through fifth grade and 225 minutes per week for students in sixth through eighth grade. At least half of physical education class time must be devoted to actual physical activity. School districts have until the 2017-2018 school year to fully comply.

Texas: Education Code **28.002** (2007) requires students in kindergarten through fifth grade to participate in moderate or vigorous physical activity for at least 30 minutes daily throughout the school year. Students in sixth through eighth grade are required to participate in moderate or vigorous daily physical activity (as a part of the physical education curriculum) for the equivalent of at least 30 minutes daily for at least four semesters.

Oklahoma Safe Routes to School State Network: Training Physical Education Teachers

In May 2008, state legislation in Oklahoma, SB 1186, doubled the required amount of physical activity time for children in kindergarten through fifth grade from 60 minutes per week to 120 minutes. The Oklahoma Safe Routes to School State Network, which includes representatives from the state departments of transportation, health and education as well as local public health agencies and the Oklahoma Bicycling Coalition, realized the policy change opened the door to providing pedestrian and bicycle safety instruction in physical education classes. The network moved quickly to provide much-needed support to physical education teachers and is developing a curriculum and teacher training model that is expected to be in place in schools throughout the state by spring 2011.

The Oklahoma network worked with other states that already had bicycle and pedestrian curricula and programs to adapt their models for Oklahoma. The Oklahoma WalkSmart! pedestrian safety curriculum for kindergarten through second grade was adapted from Walk Smart/Bike Smart Vermont and is free to download on the Oklahoma Department of Health website. The Oklahoma SafeCyclist bicycle curriculum for third through fifth grade was adapted from the Texas SuperCyclist curriculum. BikeTexas will train ten Oklahomans in how to teach the SafeCyclist curriculum. These trainers will then train and equip teachers across the state through six-hour curriculum workshops. Both WalkSmart! and SafeCyclist are aligned to Oklahoma's physical education standards, and WalkSmart! has been adopted by the Oklahoma Department of Education.

Oklahoma's state agencies have formed a strong partnership to increase implementation of these curricula. The Oklahoma Department of Health provided the Oklahoma Department of Transportation with a portion of its stimulus funding to support the SafeCyclist teacher trainings plus local implementation, ensuring that the curriculum will be free for schools to implement. But funding is only one part of their success. Don Norvelle, the Oklahoma Safe Routes to School State Network Organizer, notes that agency staff directly involved with the program are enthusiastic, and higher-level managers are also extremely supportive.

Mississippi Department of Education: Including Safe Routes to School in Lesson Plans

The Mississippi Department of Education's Office of Healthy Schools maintains an online collection of lesson plans and class strategies designed to meet state physical and health education content standards. A professor at Delta State University and the Mississippi Department of Transportation worked together to develop 40 lesson plans for classroom teachers specifically on Safe Routes to School.

Teachers can use the library of classroom lessons to embed Safe Routes to School into the classroom learning environment. When paired with classroom lessons on bicycle and pedestrian safety, these Safe Routes to School lesson plans help ensure that students receive a coordinated and consistent message on walking and bicycling to school. Christine Philley, the School Health Administrator at the Mississippi Department of Education, explains that these lessons are available for many educators to use, "We use every opportunity to share the website with teachers. There are presently over 2,000 site users from 41 different states."

District-Level Bicycle and Pedestrian Safety Instruction

School districts are positioned to create high standards to ensure that all schools run physical education programs and hire well-trained PE specialists. More specifically, a district can set the goal that every student receives both bicycle and pedestrian safety at least once during his or her school experience. District officials can partner with local transportation agencies to seek expert resources and partners for funding.

As part of ongoing professional development, districts can offer bicycle and pedestrian training events to better equip physical education and health teachers or specialists. These training events should align to national, state and/or local content standards. Examples of professional development topics include teaching injury prevention concepts in health education through lessons on bicycle helmet fitting, pedestrian safety and traffic safety or teaching bicycle safety classes that incorporate physical activity as a way to stay fit. Teachers can also engage students in creating posters or messages advocating for students to walk and bicycle to school, which may fulfill health education content standards of advocacy.

Miami-Dade County, Florida: School Board Drives Safety Education Statewide

In 2000 Miami-Dade County was ranked first in the state of Florida for child pedestrian fatalities and injuries.[53] In order to increase student safety, in 2003, the School Board of Miami-Dade County mandated that all elementary students receive pedestrian safety education through the WalkSafe™ curriculum. WalkSafe™ was developed by the University of Miami - Miller School of Medicine and other local partners. It uses an educational intervention, appropriate infrastructure improvements and an enforcement component to achieve the goals of increasing student safety and physical activity and making school environments more pedestrian friendly. The WalkSafe™ educational component uses a curriculum, separated by grade level, plus videos, workbooks, outside simulation activities and a poster contest. The program is taught in half-hour increments on three consecutive days by representatives trained by WalkSafe™ through a train-the-trainer model.

A school district can set the goal that every student receives both bicycle and pedestrian safety at least once during his or her school experience. District officials can partner with local transportation agencies to seek expert resources and partners for funding.

Bringing in staff from community organizations to facilitate walking and bicycling lessons and activities builds excitement, community connection and, because these educators are often young adults, gives students exposure to positive bicycle culture role models. It can also provide professional development opportunities for teachers to learn new skills.

Since the launch of the program in 2002, there has been a 42 percent decrease in the total number of children ages 0-14 hit by cars in Miami-Dade County. There has also been a 63 percent decline in the number of children hit by cars that are seen at trauma centers, indicating that the severity of the incidents is also decreasing. With such success, WalkSafe™ has expanded outside of Miami-Dade County to 11 other counties in Florida. During the 2009-2010 school year, 311 schools in Florida participated in the WalkSafe™ program, 7,599 teachers were trained, and 190,612 students received the pedestrian safety education.[54]

School-Level Bicycle and Pedestrian Safety Instruction

Bicycle and pedestrian safety courses and events are frequently part of any Safe Routes to School action plan. In order to accomplish this, schools typically run bicycle and pedestrian safety programs in two venues: during school in-class lessons and after-school programs.

Safe Routes to School education can meet core curriculum content for physical education and health classes. All courses should include classroom-based traffic lessons. Depending on the age of the students, these classes can also include active lessons with on-bicycle rides, either on campus or on the street. Some communities end these courses with walking or bicycling field trips or bicycle rodeos. Bicycle rodeos are popular skill-building events that offer students an opportunity to demonstrate bicycle safety skills and participate in games and other activities such as helmet-fittings. In addition to building skills, bicycle rodeos and similar events make bicycling a fun and social activity.

Principals can support these projects by partnering with agencies and organizations to bring additional education resources to help teachers run the program. Bringing in staff from community organizations to facilitate walking and bicycling lessons and activities builds excitement, community connection and, because these educators are often young adults, gives students exposure to positive bicycle culture role models. It can also provide professional development opportunities for teachers to learn new skills.

After-school programs focused on bicycling and walking can be a good supplement to in-school education. These programs or clubs can provide safety education coupled with field trips, advanced rides or rides coupled with community-service projects. Earn-a-bicycle clubs can provide students who do not have or cannot afford a bicycle the chance to earn a bicycle through on-going participation.

The University of Idaho: Preparing the Next Generation of Safe Routes to School Educators

At the University of Idaho (UI) College of Education in Moscow, Instructor Helen Brown and Professor Grace Goc Karp have integrated Safe Routes to School strategies into a number of health education, physical education, recreation and dance classes for pre-service education students at both the graduate and undergraduate level. "Our focus is to prepare pre-service teachers so they are able to integrate Safe Routes to School in their classrooms," says Brown.

Physical education teaching students learn how to plan and implement bicycle safety education for fourth-graders, and teach at least three safety lessons utilizing games, active learning and bicycling simulations. Elementary education teaching students must prepare mini-lessons on Safe Routes to School for a health fair and identify active transportation barriers around schools. As part of their education, UI teaching students volunteer at local Safe Routes to School events like Walk to School Day at area schools. Those students participating in student teaching also bring Safe Routes to School into the classroom and are raising awareness among veteran teachers.

Goc Karp and Brown are moving to integrate Safe Routes to School even further into their program by offering Safe Routes to School-focused activities as an option for health and physical education students' required 40-hour practicum. Most recently, two students participated in the development of travel plans for seven schools, including conducting site assessments at the schools to identify travel barriers and promising strategies. The students worked with Safe Routes to School teams and community partners at each school to develop individual school Safe Routes to School action plans. Brown describes the value of this approach. "Students were able to observe the complete travel plan development process, including budgeting. We feel this is a valuable experience – we hope to prepare students who have the skills to bring Safe Routes to School to other communities."

With the success of their approach in their own department, Brown and Goc Karp are beginning to partner with other programs to expand the diversity of students and disciplines engaged with Safe Routes to School through the University. They are in the process of working with students studying recreation, engineering, bio-regional planning and art education. These partnerships model one of the important features of Safe Routes to School. According to Brown, "In addition to providing students with the tools and resources they need to implement successful Safe Routes to School strategies, we want them to become aware of the importance of community-based partnerships that are necessary to successfully grow the Safe Routes to School movement and make needed community changes."

Oregon: Bringing Skilled Instructors and Bicycle Equipment to Schools
In 1998, the Oregon Department of Transportation first provided the statewide Bicycle Transportation Alliance (BTA) a grant to develop and teach bicycle safety instruction statewide. The BTA curriculum is tied to a number of curriculum benchmarks mandated by the state of Oregon. The curriculum is a ten-hour comprehensive program consisting of four hours of classroom instruction and six hours of on-bicycle instruction. BTA provides a trained instructor, a fleet of 30 bikes, helmets, brochures and pamphlets.

Even though many teachers have initial concerns about using classroom time for bicycle safety education, teachers that use the program immediately find that it is one of the year's most interactive and engaging curriculum elements. Because the sessions are coordinated and taught by BTA instructors, teachers are assured of having a successful, expert and safe bicycle safety program complete with equipment for students. In addition, BTA engages volunteers and community members to help lead the on-street bicycle rides, which increases linkages between the school and the community. Since 1998, the BTA has taught 60,000 students in Oregon and has been used as a model in a number of other states.

Matrix of Policies and Action Steps: Bicycle and Pedestrian Safety Instruction

State-Level Bicycle and Pedestrian Safety Instruction	**Policies** • Align state physical education and health curriculum content standards to national standards and demonstrate how bicycle and pedestrian safety instruction can meet these standards and benchmarks. • Ensure that federal Safe Routes to School program funds are used to run education and encouragement programs in schools. Work with the state department of transportation to dedicate the maximum allowable (30 percent of state Safe Routes to School funds) for non-infrastructure programs, including education.
	Action Steps • Encourage teaching of bicycle and pedestrian safety programs in schools, and work with state departments to issue teacher training guidelines. • Ensure that the state departments of education and transportation work together to jointly identify expert professionals and curricula on bicycle and pedestrian safety that will meet education standards and that can be subcontracted to provide curriculum, training and services. • Contract with a statewide bicycle and pedestrian organization to train teachers on bicycle and pedestrian safety instruction.
District-Level Bicycle and Pedestrian Safety Instruction	**Policies** • Develop a school board policy requiring all students to receive pedestrian and bicycle safety education as part of health and physical education curriculum programs. This language can be incorporated into district wellness policies. • Ensure that district policy on safe walking and bicycling includes language encouraging students to wear helmets when bicycling to and from school. • Develop hiring protocols and require ongoing education for physical education and health education specialists.
	Action Steps • Offer professional development to physical education and health specialists or teachers to instruct them how to teach bicycle and pedestrian safety in a way that is tied to national, state and/or local content standards. • Work with state or local nonprofits or state departments of transportation and education to find expert professionals and curricula that can assist with teaching children bicycle and pedestrian safety.
School-Level Bicycle and Pedestrian Safety Instruction	**Policies** • Work with teachers to tie walking and bicycling safety messages into the curriculum for other subjects like math, science and English.
	Action Steps • Work with local nonprofit organizations and businesses to identify funding and professional expertise to assist with efforts on bicycle and pedestrian safety instruction. • Run in-school bicycle and walking safety lessons and programs. Include classroom-based traffic lessons; run optional on-bicycle lessons and community ride field trips. • Develop an after-school club or program that reinforces walking and bicycle safety through fun excursions that are both educational and recreational. • Promote walk and bicycle to school days and deliver health and safety messages in classrooms and home to families. Participate in International Walk and Bike to School Day in early October and hold regular walking and bicycling events, such as Walking Wednesdays to engage parents and students.

Additional Resources

Standards on physical education, physical activity and health education:

- National guidelines for physical activity and physical education (National Association for Sport and Physical Education): **http://www.aahperd.org/naspe/standards/nationalguidelines/**
- National standards for physical education (National Association for Sport and Physical Education): **http://www.aahperd.org/naspe/standards/nationalstandards/PEstandards.cfm**
- Health education standards (Centers for Disease Control and Prevention): **http://www.cdc.gov/healthyyouth/sher/standards**

Resources for teaching bicycle and pedestrian safety:

- Best practices for state bicycle and pedestrian safety curricula (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/state/bestpractices/curriculum**
- Safe Routes to School children's education guide (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/guide/education/children.cfm**
- Smart Cycling courses and instructors (League of American Bicyclists): **http://www.bikeleague.org/programs/education/index.php**
- State and local bicycle and pedestrian advocacy groups (Alliance for Biking and Walking): **http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/C530**
- Safe Kids Walk This Way child pedestrian safety resources (Safe Kids USA): **http://www.usa.safekids.org/wtw/**
- *An Organizer's Guide to Bicycle Rodeos* (Cornell University): **http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf**
- *Safe Routes to School: Putting Traffic Safety First* (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf**

More information on highlighted success stories:

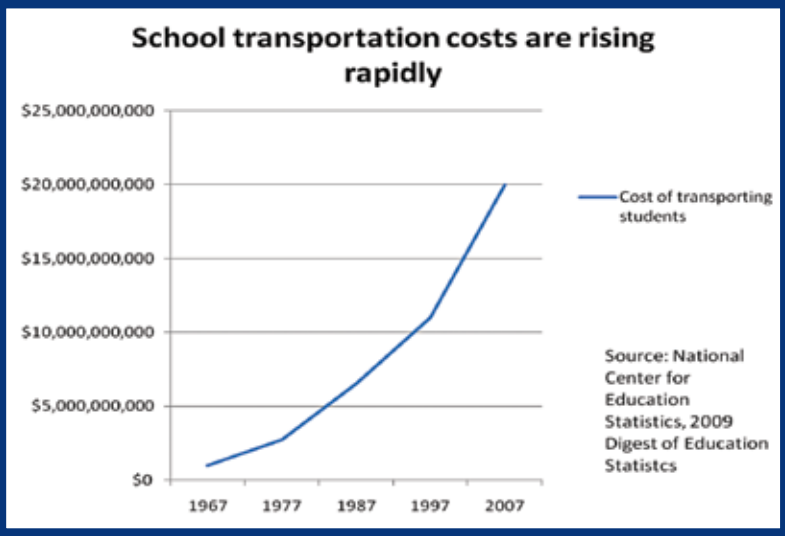
- Oklahoma WalkSafe! Curriculum (Oklahoma Safe Routes to School Network): **http://www.ok.gov/strongandhealthy/documents/WalkSmartCurriculumFinal2010.pdf**
- Walk Smart/Bike Smart Vermont curriculum (Center for Health and Learning): **http://www.healthandlearning.org/bikesmart.html**
- Texas SuperCyclist curriculum and training program (Bike Texas): **http://www.biketexas.org/index.php?option=com_content&view=article&id=72&Itemid=81**
- Mississippi lesson plans including Safe Routes to School (Mississippi Department of Education's Office of Healthy Schools): **http://www.healthyschoolsms.org/healthinaction.html**. [Enroll on the site by using your e-mail address, click on a grade level and then type in Safe Routes to School to find lesson plans.]
- WalkSafe™ curriculum (University of Miami - Miller School of Medicine): **http://www.walksafe.us/**
- Oregon's Bicycle Safety Education Program (Bicycle Transportation Alliance): **http://www.bta4bikes.org/at_work/bikesafetyed.php**

References

52. National Center for Safe Routes to School. "The Decline of Walking and Bicycling," http://www.saferoutesinfo.org/guide/introduction/the_decline_of_walking_and_bicycling.cfm (Accessed on April 26, 2010).
53. Hotz, Gillian (2003). *WalkSafe Program* [PowerPoint slides in pdf]. Retrieved on April 26, 2010 from http://www.informaworld.com/index/714006946.pdf.
54. Garces de Marcilla, Anamarie (2009, December 15). *Report Shows How Safe Routes to School Initiatives Protect Children Walking and Bicycling in Miami-Dade County*, [Press Release]. Miami: WalkSafe.

Ensuring that School Transportation Policies are Inclusive of Walking and Bicycling

Transportation is a major responsibility and cost center of state and district school systems. These costs have risen sharply over the past four decades. Nationwide, the cost of transporting students has risen exponentially from just under $1 billion in 1967 to nearly $20 billion in 2007. At the same time, the number of students transported has risen just 60 percent, from 17 million to approximately 26 million.[55]



These cost increases can be attributed in part to the trend of sprawling development patterns and the construction of new schools at the edges of established cities and towns. In addition, hazard busing, which is the practice of busing students who live close to school due to traffic hazards, has increased as schools are built near busy highways or conditions for pedestrians and cyclists have deteriorated.

Another significant change in school transportation is the increase in the number of parents that are dropping their children off at school, which creates traffic congestion around schools that can delay school buses and create additional hazards for children who do walk and bicycle. With rising busing costs and shrinking school budgets, many school systems have reduced busing in the past few years. If school districts do not address parent concerns about traffic and personal safety dangers, it can actually increase the number of parents that drive their children to school, worsening traffic congestion and safety dangers.

State and local education and transportation officials can work together to make school transportation policies inclusive of walking and bicycling, address hazards that require students to be bused that would otherwise be close enough to walk and bicycle, make long-term busing costs more sustainable and reduce the number of parent vehicles at schools.

State-Level Inclusive School Transportation Policies

Many states have busing reimbursement formulas that simply reimburse school districts for the number of students transported or the miles driven, which does not encourage school districts to design efficient busing routes or minimize long-term costs. Some states also reimburse local school districts for hazard busing, when a student is bused due to traffic or personal safety hazards, but may not require the local jurisdiction to make improvements to eliminate the hazard.

To ensure more manageable long-term school transportation costs, some states have studied school busing practices, trends and reimbursement policies. Improvements to school transportation policies can include the adoption of policies that incentivize more efficient busing routes or that eliminate hazard busing through creation of long-term infrastructure solutions that make it safer for students walking and bicycling.

Illinois: Tackling Hazard Busing

Illinois is working on refining state laws on hazard busing. In May 2009, the Illinois state legislature passed House Joint Resolution 6 to require the creation of a School Transportation Task Force. The goals of the task force are to examine multi-modal school transportation plans and to study potential legislative changes. Safe Routes to School advocates involved with the Illinois Safe Routes to School State Network recommended members to the task force.

One key focus of the School Transportation Task Force will be to identify ways to save on school busing costs, particularly through the hazard busing program, while improving safety for children walking and bicycling. Currently, the state of Illinois

School district officials should ensure that any cutbacks in bus routes are accompanied by an assessment of and improvement in safety for walking and bicycling. Otherwise, children are likely to be walking and bicycling in unsafe conditions, or parents will drive these children, leading to more traffic congestion and safety concerns around the school.

reimburses schools for hazard busing when students live less than 1.5 miles to school but the route is determined to be unsafe for students walking and bicycling. Costs for hazard busing have increased 67 percent in seven years, and the number of students enrolled in hazard busing is increasing 1.2 percent per year even while student enrollment is dropping.

District-Level Inclusive School Transportation Policies

Traditionally, district transportation policies focus primarily on the safety of students arriving to school by bus. Districts can move toward inclusivity by expanding transportation policies and staff responsibilities to also address the safety of students walking and bicycling to school.

School district transportation divisions should embrace active transportation and develop district-wide safety policies and solutions that increase these healthy behaviors. School districts should determine whether any bans on walking and bicycling are in place, examine why they are in place and work to address the underlying safety concerns so these policies can be overturned. Transportation divisions should partner with municipal agencies to develop short- and long-term plans to increase access and safety to every school site by bicycle and foot. If school districts prioritize routes along which children are currently being bused due to hazards, long-term busing costs can be reduced. See pages 36-43 for more information on infrastructure improvements.

District officials should also ensure that any cutbacks in bus routes are accompanied by an assessment of and improvement in safety for walking and bicycling. Otherwise, children are likely to be walking and bicycling in unsafe conditions, or parents will drive these children, leading to more traffic congestion and safety concerns around the school.

Auburn, Washington: Reducing Bus Transportation Costs and Increasing Physical Activity

In 1995, the Auburn School District in Washington began discussions about increasing walking and bicycling to school to curb transportation costs and address rising rates of childhood inactivity. The school district formed a citizens committee to develop an initial district-wide plan for safe pedestrian routes and to develop safe walking route maps for every school. Today, each of the 22 schools in the district maintains a safe walking committee that makes safety recommendations to the District Safety Committee.

The city of Auburn is a true partner in this effort. It uses some of its municipal funds to make some improvements around schools, such as signage, traffic calming, sidewalks and paths. The city also writes grant applications for programs like Safe Routes to School to secure additional funding to make larger-scale upgrades and improvements. In addition, in support of these efforts, the City of Auburn now requires all developers to install sidewalks.

Overall, the improvements made now mean that 20 percent of students (2,800 children) live within safe walking areas and no longer need to be bused to school. These reductions in hazard bus service are saving the transportation department a total of $240,000 each year in personnel and fuel costs. The school district is currently waiting to hear if they will receive additional Safe Routes to School funding to address a hazardous walking area within a mile of an elementary school. If the grant is received, 50 students who are currently being bused less than ten blocks will be able to walk and bicycle to school—which will allow the school district to eliminate an additional two bus routes and save approximately $15,000 annually in busing costs.

San Francisco Unified School District: Action on Behalf of Active Transportation

The San Francisco Unified School District in California is making walking and bicycling a priority as part of their efforts to encourage healthy, sustainable lifestyles for faculty, students and their families. The school district is installing bicycle racks at schools throughout the district, and is launching Safe Routes to School programs at 15 pilot schools. The programs will include bicycle and pedestrian safety education, increased traffic enforcement around school zones and encouragement activities. In order to improve the health of students, protect the natural environment and promote safety around schools, the district also sent a letter to all principals encouraging them to support walking and bicycling to school.

The school board has also passed resolutions supporting this effort. On February 9, 2010, the school board passed a sustainability resolution directing the superintendent to develop "policies, practices and curricula that promote health, sustainability and fiscal discipline." One major focus area of the resolution was on "transportation programs that incorporate the traffic impact of school programs on the community into planning decisions and promote alternative transportation, fuels and practices." Another resolution on walking and bicycling to school urged the Municipal Transportation Agency (MTA) to develop a comprehensive planning process to address safety concerns around schools near a busy thoroughfare, Masonic Avenue.

School-Based Inclusive School Transportation Policies

In order to increase walking and bicycling among students, school leaders should promote these behaviors as safe and reasonable. School policies and practices can increase the safety of active transportation, including permitting walkers and bicyclists to enter and leave school sites through protected entrances and developing a crossing guard program to ensure safety at intersections.

School staff can also promote walking and bicycling through school-based events. Staff members that model active transportation behaviors will help instill these values in students. Parents and students can also be valuable allies by reaching out to their fellow parents and peers to convince more parents and students to choose the active way of getting to and from school.

Alexandria, Virginia: Reversing a Ban on Walking and Bicycling

When it opened in 2000, Samuel Tucker Elementary School in Alexandria, Virginia became the city's first new public school in 30 years. Surrounded by newly built townhouses, condominiums and retailers and a network of sidewalks, it would have appeared to be a model for a neighborhood school. However, it was also an on-going and active construction site as the community continued to expand. Out of safety concerns, the Alexandria City Public Schools provided hazard busing to all students living within a one-mile radius of the school. The busing policy also led to an unwritten understanding that walking and bicycling was not allowed at the school.

In 2008, construction was winding down and parents were anxious to increase walking and bicycling. Parents asked school administrators to rescind the busing policy and allow walking and bicycling so that the school could apply for federal Safe Routes to School funding. The parents' request was aided by outside factors: nearby construction had ended, improving safety conditions, and tight school budgets would be aided by reductions in busing costs. As a result, the school principal and the assistant school superintendent concurred and reached out to the city of Alexandria to put plans in place to prepare for the transition to greater levels of walking and bicycling. In 2009, the busing policy was rescinded.

Matrix of Policies and Action Steps: Inclusive School Transportation Policies

State-Level Inclusive School Transportation Policies	**Policies** • Alter school transportation policies and reimbursement formulas to incentivize efficient busing and work towards eliminating "hazard busing" through creation of long-term infrastructure solutions. As an example, permit school districts to use a portion of their hazard busing reimbursement from the state to repair the hazards, allowing students to walk and bicycle and allowing the school to reduce long-term busing costs. • Provide funding incentives for locating schools within walking distance (one to two miles) of 50 percent or more of students, which will reduce long-term busing costs. • Require state departments of education and transportation to work together to study levels and safety of all methods of school transportation, including walking and bicycling, and issue regular reports.
	Action Steps • Develop a state School Transportation Task Force to study school transportation costs, busing practices, trends and reimbursement policies and recommend potential legislative changes. • Issue guidance on school transportation policies to encourage school districts and schools to lift any bans on bicycling and walking and pass school transportation policies that are inclusive of safe walking and bicycling to and from school.
District-Level Inclusive School Transportation Policies	**Policies** • Develop district-wide school transportation safety policies that are inclusive of safety for students walking and bicycling. Develop action plans to increase safety for all students who arrive on foot or bicycle and to decrease the number of parents dropping their children off by car. • Assess the reasons for any school district bans or limits on walking and bicycling, address the safety concerns and lift the bans. • Pass resolutions and policies that support safe walking and bicycling to school.
	Action Steps • Develop a district School Transportation Task Force to study school transportation costs, busing practices, trends and reimbursement policies and identify opportunities to make busing more efficient and reduce the use of hazard busing. • Ensure that job descriptions for school transportation staff include responsibility for safety of students walking and bicycling, not just those who take the school bus. • Have the district's school transportation staff spearhead the creation of safer walking route maps for every school, in partnership with city officials, representatives from the schools, parents and students. • Partner with municipal agencies to develop short- and long-term infrastructure plans that fix hazardous busing areas, so that students can safely walk and bicycle instead of being bused. • Couple any cutbacks in bus service with assessments and improvement of walking and bicycling routes so that students will be safe and parents have options other than driving their children to school.
School-Level Inclusive School Transportation Policies	**Policies** • Assess the reasons for any school bans or limits on walking and bicycling, address the safety concerns and lift the bans. • Pass policies supporting safe walking and bicycling to and from school, and ensure that parents know it is encouraged.
	Action Steps • Deploy school personnel at arrival and dismissal times to ensure safe passage for children walking and bicycling through the school campus, separate from autos and buses. • Form a Safe Routes to School working group, including parents, charged with convincing parents to allow their children to walk and bicycle to school instead of driving them. Survey parents to understand their concerns and develop marketing messages the school can use. • Promote walking and bicycling through school-based events and discourage parents from driving children short distances to school. Encourage school staff members to model active transportation behaviors.

Additional Resources

School transportation costs and policies:

- National statistics on school transportation (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/media/file/school_bus_cuts_national_stats_FINAL.pdf**
- *Safe Routes to School – Creative and Safe Solutions on School Bus Cuts* (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/local/112191#Bus%20Cuts**
- *School Bicycling and Walking Policies: Addressing Policies That Hinder and Implementing Policies That Help* (Safe Routes to School National Partnership and the National Center for Safe Routes to School): **http://www.saferoutespartnership.org/media/file/barrier_policy_tip_sheet.pdf**

Encouraging more walking and bicycling to school:

- Encouragement guide (National Center for Safe Routes to School): **http://www.saferoutesinfo.org/guide/encouragement/index.cfm**
- *Making the Most of Non-Infrastructure Safe Routes to School Funds* (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/media/file/Non_Infrastructure_11_3_09.pdf**

More information on highlighted success stories:

- Illinois School Transportation Task Force (State of Illinois): **http://appointments.illinois.gov/appointmentsDetail.cfm?id=334**
- Profile of Auburn, Washington's efforts to reduce school transportation costs (Safe Routes to School National Partnership): **http://www.saferoutespartnership.org/media/file/school_bus_cutsAuburn_WA_FINAL.pdf**
- Resolutions of the San Francisco Board of Education (San Francisco Unified School District): **http://156.1.240.11/template/default.cfm?page=res_board_member** [See resolutions 85-13A1, 94-28A5, and 910-27A1)

References

55. National Center for Education Statistics. *Digest of Education Statistics: 2009.* Retrieved on May 3, 2010 from http://nces.ed.gov/programs/digest/d09/tables/dt09_176.asp.

Creating Neighborhood Schools and Joint Use Policies

Quick Facts on Neighborhood Schools and Joint Use

Schools sited to support joint uses generate strong support from communities, both for individual schools and future school construction bonds.[58]

Older urban schools are often closed rather than renovated in favor of new suburban schools farther from community centers, hindering students' ability to walk to school.[59]

Michigan researchers found that average home property values within a half-mile of an open, stable elementary school rose at a 3 percent higher annual rate than they did around similar neighborhoods with a closed elementary school. Had the school remained open, researchers believe the city, county and schools would have realized almost $2 million more in property taxes from 1994 to 2003.[60]

Public school enrollment has nearly doubled since the 1930s; however, during this time the number of public school buildings has decreased by 60 percent.[56] This trend has resulted in larger schools that are increasingly distant from the families they serve. Larger, more distant schools also have an impact on active transportation, since walking and bicycling rates decline dramatically when children live more than a mile from school.

Many state laws, policies and regulations have an impact, intentional or unintentional, on local school siting decisions and have led to the decline in neighborhood schools, which are located near the families they serve. School construction formulas can favor new construction, which often results in schools in outlying areas, over renovation of existing schools, which are more likely to be smaller neighborhood schools. Many states have outdated "minimum acreage standards" in place requiring large plots of land for school sites, which are difficult to find within neighborhoods and often force the siting of schools in undeveloped, outlying areas. Formulas for funding allocations to schools can favor high-enrollment schools, which are challenging to build within neighborhoods. Finally, many states have school busing reimbursement formulas in place that do not encourage efficient location of schools and judicious use of busing.[57]

These laws are unfortunate because neighborhood schools have other benefits. When schools are sited near residents, they can also serve as centers for community-based activities after school and on weekends—often called "joint use." Joint use policies are agreements between schools and communities to allow residents to use school facilities—including parks, playgrounds and gymnasiums—on evenings and weekends, or to allow students to use community facilities like a library or a pool, saving the school from having to build a duplicative facility. This model has been very successful and offers three clear benefits: reducing construction and operation costs, increasing physical activity when residents use recreational facilities and increasing broad public support for educational facilities. Joint use agreements are even more effective when schools and facilities have a safe network of bicycle and pedestrian infrastructure surround them, allowing residents and students to walk and bicycle in between their homes and facilities where they can be physically active.

State-Level Creation of Neighborhood Schools and Joint Use Policies

Some states that realize the benefits of community-centered schools, sited near the students they serve, have begun to change old policies and alter practices. States can create interagency committees to conduct a comprehensive assessment of existing laws and policies that impact school siting, renovation and construction, and identify changes needed to support community-centered schools. Many of these laws have been put into place individually, over time, and may not have been reviewed as a whole. It is important that the committee also analyze the relationship between school siting and transportation costs as well as student physical activity levels.

State departments of education and affiliated agencies can also provide guidance and case studies on joint use policies to encourage the practice of having school buildings that double as community centers. An example of a useful resource would be a best practices manual that addresses state-specific legal issues governing joint use policies, how school districts and local governments can negotiate agreements, liability issues, fees and accompanying management responsibilities.

South Carolina: Reversing Minimum Acreage Standards

In 27 states, school boards must follow acreage guidelines when siting new school facilities. In 2003, South Carolina enacted legislation (South Carolina Code Ann. § 59-23-250) eliminating South Carolina's minimum acreage standards for all public schools. Eliminating these minimum acreage standards allows for the construction of more community-centered schools since smaller plots of land are more likely to be available in neighborhoods. The South Carolina Department of Education's Office of School Facilities has revised its planning and construction guidelines to reflect the elimination of the minimum acreage requirements.

The state's process includes the review of all new school sites or renovation plans from the preliminary design phase through the final construction phase. Following the planning and construction guidelines, state education staff consult with state transportation officials, including the state Safe Routes to School coordinator, to ensure that roadway and facilities improvements are made at the time of new school construction and as renovations are made to existing schools. Alex James, Director of the Office of School Facilities in the South Carolina Department of Education, notes that they have a close partnership with the state department of transportation based on their mutual goals. They frequently work together to help communities plan for and build safe facilities and infrastructure around schools to support walking and bicycling.

"State-level policy and practices often make it difficult to keep schools located within communities. Many states have minimum acreage standards that discourage reuse of existing schools by requiring unnecessarily large sites, making it hard to locate schools near students' homes. State funding can be biased toward new construction, long funding cycles can lead to deferred maintenance, and state support for the costs of transporting students encourages communities to choose distant locations for their schools."[61]

"While building a large new school on cheap land on the outskirts of a community may initially seem more cost-effective, renewing a school campus often costs less than purchasing a new site or demolishing the original school, and constructing a new facility and supporting infrastructure. In addition to the financial aspect, schools sited in neighborhoods have less traffic, higher levels of walking and bicycling and less air pollution."[63]

In addition, James notes that infrastructure changes on their own are not enough to make walking and bicycling the norm, which is why the comprehensive approach identified by Safe Routes to School is so important. "One community was being built to be more walkable, but the culture wasn't there to support it and people were driving anyway. A walking school bus really helped that community make some change toward active transportation. In a walking school bus, parents organize and make sure that at least one responsible person is with a child or children as they walk to school… For pedestrian access, it takes a culture change to assure parents that children can be safe."

North Carolina: Removing Liability Barriers to Joint Use Agreements

The foundations for joint-use agreements are often based in state legislation. Some states have enacted laws that encourage, support or authorize school districts to enter agreements supporting the joint use of school facilities. For example, North Carolina's Community Schools Act (NC General Statutes - Chapter 115C Article 13) encourages ''greater community involvement in the public schools and greater community use of public school facilities.''

Furthermore, to encourage community use of public school facilities, North Carolina has adopted legislation allowing a school board to enter into an agreement with non–school groups to provide usage of school facilities. The school board is shielded from any liability if injury or death occurs when a non-school group is on school property participating in the activity agreed to by contract.[62]

District-Level Creation of Neighborhood Schools and Joint Use Policies

School districts have the daunting responsibility of ensuring that all students have adequate educational facilities and of balancing this need with fiscal realities. While building a large new school on cheap land on the outskirts of a community may initially seem more cost-effective, "renewing a school campus often costs less than purchasing a new site or demolishing the original school, and constructing a new facility and supporting infrastructure."[63] In addition to the financial aspect, schools sited in neighborhoods have less traffic, higher levels of walking and bicycling and less air pollution.[64] School districts should ensure they are factoring in all of these considerations when considering whether to renovate an existing neighborhood school or selecting a site for a new school.

With the proper district policies in place to permit after-school uses of school grounds, neighborhood schools can also provide the community places to be active and hold non-school community activities. School boards and district

administrations that integrate with city and county planning processes will increase collaboration and may leverage additional community support, new partners and financial resources, and may reduce operating costs.

Albany, Oregon: City and School District Save Money and Increase Access
When community volunteers with the Albany Bicycle and Pedestrian Commission wanted to raise awareness about local active transportation issues, they approached City Manager Wes Hare. When Hare saw the Commission's local data showing a sharp decline in students walking and bicycling to school, he was surprised. Surveys conducted at two elementary and two middle schools showed that only 10 percent of students walked or bicycled to school. This local trend, compounded with increasing diabetes and obesity rates among children, caught his attention. At the encouragement of the Commission's volunteers, Hare became involved with Albany's Safe Routes to School program. Hare currently chairs the Albany Safe Routes to School committee, which meets monthly to plan strategies for the five-school program.

After the school district won approval of a bond for new school construction in November 2006 for the first new school in 30 years, city staff and the Safe Routes to School committee were influential in locating a site for a new elementary school in the middle of an existing, growing residential neighborhood. There were financial incentives for the school district to purchase cheaper land available on the edges of the community, but examining long-term costs for building farther away revealed that costs throughout the life of the building would be higher due to busing and other costs. The district ended up paying more up front for a site in town, but construction costs were reduced due a joint use agreement with the city.

The city is constructing a track and field area that can be used by both the school and community residents. The school is sited next to land where the city will build a neighborhood park. And, the local Boys and Girls Club built a gym on the school site for use by the club and students. These joint use agreements and partnerships have allowed the school district, the city and a nonprofit to combine their resources and cut down on construction costs the school district had to finance.

Hare notes that Safe Routes to School efforts and the school siting initiative complement the four themes laid out in Albany's strategic plan: a safe community, great neighborhoods, a healthy economy and effective government. The city is a partner with the school district on school siting and Hare works with the district to integrate their work on many levels. Good communication, motivated community members and a long-standing relationship between the school district and the city helped facilitate this school siting decision and joint use agreements.

School administrators should encourage the public use of buildings and grounds after-hours and in the summer. Schools that are used by the community may be able to save money by sharing operations and maintenance costs with municipalities.

School-Level Creation of Neighborhood Schools and Joint Use Policies

Neighborhood schools are located near the families they serve, allowing for larger numbers of children to walk and bicycle and encouraging frequent interactions between parents, teachers, students and administrators.[65] Additional benefits of increased walking and bicycling include improved air quality through lower emissions, reduced congestion, improved safety and reduced student transportation costs.

School grounds and buildings that are located within neighborhoods are ideal locations for non-school activities too. School administrators should encourage the public use of buildings and grounds after-hours and in the summer. Schools that are used by the community may be able to save money by sharing operations and maintenance costs with municipalities. School leaders should work with the school wellness committee, parents and community partners to publicize the availability of the school facilities and to encourage more neighborhood residents to use them.

Des Moines, Iowa: Building a Community School for Students and Residents

When the number of students outgrew the Longfellow Elementary School in Des Moines, Iowa, school personnel and residents saw the opportunity to create a new community school. Rather than look for a new site on the outskirts of the community, the school system chose to replace the existing elementary school with a new facility and to embark upon an innovative joint-use partnership.

The Des Moines Public Schools and the Boys & Girls Club of Central Iowa worked together to raise funds to build a new school that would also include a Boys & Girls Club facility at the school. The $11.2 million construction project was funded by revenue from a local sales tax plus funds raised by the Boys & Girls Club. Excitement over the new community school helped engage a range of partners, including the Iowa Health System, Iowa Lutheran Auxiliary, City of Des Moines Parks & Recreation and the Capitol Park Neighborhood Association.

Completed in 2007, the new George Washington Carver Community School is one of only five locations in the country where a new school was built in partnership with a Boys & Girls Club. The joint-use community school educates students in pre-kindergarten through fifth grade. In addition, the Boys & Girls Club operates an early-childhood education center, a retail thrift store and after-school programs. The school is also located adjacent to a city park, providing students and Club members with additional opportunities for physical activity.

Providence, Rhode Island: Revitalizing a Historic Middle School
In 2006, Nathan Bishop Middle School on the East Side of Providence, Rhode Island was targeted for closure due to shrinking enrollments and low student achievement. However, parents and residents campaigned to save the historic neighborhood school, which was initially built in 1921. After receiving hundreds of emails from residents, then-Superintendent Donnie Evans reconsidered his decision and invited parents to help plan a new middle school.

To make the renovation project fiscally sustainable, the school was designed as a high-performance green school. Reflective roof surfaces, use of natural lighting and rainwater collection are some of the techniques used to create an environmentally sustainable building that also saves on annual utility costs. The total cost of the historic renovation project was $33 million—$11 million less than the school district's initial estimates to construct a new school elsewhere. In October 2009, Nathan Bishop Middle School received the "Rhody Award for Historic Preservation" from the Rhode Island Historical Preservation and Heritage Commission.

Nathan Bishop Middle School re-opened for the 2009-2010 school year. Given the state-of-the-art facilities and new energy around the school, many parents have moved their children from private schools back into the public school system. Nearly 80 percent of the school's students come from the neighborhood, meaning that distances are short enough for students to walk and bicycle to school. Sidewalks, walkways and bicycle lanes connect the school to the neighborhood, and bicycle racks are located at the building's main entrance.


Lent Elementary
MON 6/8 - FIELD DAY
WED 6/10 - LAST DAY
SCHOOL
READ!

Matrix of Policies and Action Steps: Creation of Neighborhood Schools and Joint Use Policies

State-Level Creation of Neighborhood Schools and Joint Use Policies	**Policies** • Create a state committee to examine and recommend improvements to the range of laws, policies and practices that impact school siting, school sizes and joint use. • Eliminate the minimum acreage requirements in state guidelines. Adopt guidelines that call for a balanced decision-making process about the size of a site that also permits the construction of more neighborhood-centered schools. Ensure that these standards are incorporated into state school construction guidelines and tied to state school construction cost reimbursement policies. • Eliminate policies that provide funding incentives and formulas that favor new construction over renovating existing schools and favor schools with large enrollments. • Create incentives for school districts to reduce busing costs by locating schools near the students being served, and to analyze transportation costs as part of school siting decisions.
	Action Steps • Evaluate state spending on student transportation and the relationship to the siting of schools. Issue guidance to school districts about how to assess long-term transportation costs as part of school siting decisions. • Encourage school districts and municipalities to collaborate in developing transportation and land use plans that synchronize the siting of schools with residential development plans. • Provide guidance and case studies to support the practice of implementing joint use policies where schools and communities can share costs and access to facilities. Include a best practices manual that addresses legal use, cross-agency negotiation, liability issues, fees and accompanying management responsibilities.
District-Level Creation of Neighborhood Schools and Joint Use Policies	**Policies** • Revise school district renovation and construction guidelines to require an assessment of the proximity of the site to the students that will be served. Maximize the percentage of students living within one to two miles of the school with safe bicycle and pedestrian infrastructure. • Negotiate with the local government and community organizations to establish joint use agreements on facilities like gymnasiums, pools and parks to increase physical activity outside of school hours. Ensure adequate bicycle and pedestrian access linking the facilities to schools and homes.
	Action Steps • Participate in city and county planning processes to increase collaboration on school siting and joint use issues. • Ensure that once a school site is selected, the campus design provides safe access for children walking and bicycling, separate from auto and bus traffic. • Educate each school's administrator on the joint use policy and expectations for local schools. Provide resources and guidance to help schools encourage usage of facilities by community residents.
School-Level Creation of Neighborhood Schools and Joint Use Policies	**Policies** • Ensure that the school district's wellness committee or school health advisory committee includes joint use in its policies and priorities, and provides guidance on how to publicize joint use agreements to parents and community residents.
	Action Steps • Make sure that parents and students feel welcome using school facilities after-hours, on weekends and in the summer—particularly to increase physical activity levels. • Work with parents and community partners to spread the word about the joint use agreements to other neighborhood residents to increase access and usage of school facilities.

Additional Resources

Neighborhood schools and school siting:

- Policy recommendations and success stories for community-centered schools (National Trust for Historic Preservation): **http://www.preservationnation.org/issues/historic-schools/**
- *Travel and Environmental Implications of School Siting* (U.S. Environmental Protection Agency): **http://www.epa.gov/dced/school_travel.htm**
- Voluntary Model School Siting Guidelines (U.S. Environmental Protection Agency): **http://www.epa.gov/schools/siting.html**
- *Planning for Schools and Livable Communities: The Oregon School Siting Handbook* (Oregon Transportation and Growth Management Program): **http://www.oregon.gov/LCD/TGM/docs/schoolsitinghandbook.pdf**
- *Issue Brief - Integrating Schools into Healthy Community Design* (National Governors Association Center for Best Practices): **http://www.nga.org/Files/pdf/0705SCHOOLSHEALTHYDESIGN.PDF**
- *Good Schools, Good Neighbors—The Impacts of State and Local School Board Policies on the Design and Location of Schools in North Carolina* (University of North Carolina at Chapel Hill): **http://curs.unc.edu/curs-pdf-downloads/recentlyreleased/goodschoolsreport.pdf**

Joint use policies:

- *Opening School Grounds to the Community After Hours—A Toolkit for Increasing Physical Activity through Joint Use Agreements* (Public Health Law and Policy): **http://www.phlpnet.org/healthy-planning/products/joint_use_toolkit**
- Model joint use agreements (National Policy and Legal Analysis Network to Prevent Childhood Obesity): **http://www.nplanonline.org/childhood-obesity/products/nplan-joint-use-agreements**
- Joint use background and examples (California Joint Use State Taskforce): **http://www.jointuse.org**

More information on highlighted success stories:

- South Carolina school planning and construction guidelines (South Carolina Department of Education): **http://www.ed.sc.gov/agency/Innovation-and-Support/Facilities/documents/2010-Guidebook.pdf**
- North Carolina Community Schools Act (General Assembly of North Carolina): **http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_115C/Article_13.html**

References

56. National Center for Education Statistics, "Table 98. Public Elementary and Secondary Schools by Type and State or Jurisdiction; 1990-91, 2000-01; and 2006-2007." http://nces.ed.gov/programs/digest/d08/tables/dt08_098.asp (Accessed on April 26, 2010).
57. U.S. Environmental Protection Agency. (2003). *Travel and environmental implications of school siting.* Accessed April 25th, 2010 from http://www.epa.gov/smartgrowth/school_travel.htm.
58. Joint Center for Housing Studies of Harvard University. (2002). *Using public schools as community-development tools: Strategies for community-based developers.* Retrieved on April 26, 2010 from http://www.innovations.harvard.edu/showdoc.html?id=5050.
59. National Trust for Historic Preservation. (2000). *Historic neighborhood schools in the age of sprawl: Why Johnny can't walk to school.*
60. National Trust for Historic Preservation, "Consequences of Distant Schools." http://www.preservationnation.org/issues/historic-schools/helping-johnny-walk-to-school/distant-schools.html (Accessed on April 26, 2010).
61. National Trust for Historic Preservation, 2000.
62. In North Carolina General Statutes Ch. 115C § 13 (1977) .
63. Save Our Land, Save Our Towns, Inc. (2007). *Renovate or replace: The case for restoring and reusing older school buildings.* Retrieved on April 26, 2010 from http://www.saveourlandsaveourtowns.org/pdfs/RenovateorReplace/RoRMASTER.pdf.
64. U.S. Environmental Protection Agency, 2003.
65. National Trust for Historic Preservation, 2000.

Conclusion

An emerging body of research indicates that physical activity is not only critical in keeping children and adolescents physically healthy, but can also help them academically. Physical activity improves students' cognitive functioning and also impacts their mental and emotional health. However, physical inactivity is the norm in the United States—a trend that, if continued, will lead to a generation of young people who will not live as long as their parents did.

A coordinated approach is necessary to address the complex and multi-faceted problems of physical inactivity, overweight and obesity. Schools provide a central point of leverage for such efforts. Education policymakers and professionals are highly invested in the success of students, and should protect that investment by providing students with every opportunity to reach their fullest potential. Safe Routes to School is one practical approach education policymakers and professionals can take to further invest in the success of the students they serve.

This guide provides numerous action steps and policies that can be implemented across the educational hierarchy, from state, to district to individual school levels. Highlighted communities serve as real examples of what can happen when state, district and school professionals come together with community partners toward the common goal of helping students be healthy, active and ready to learn.

To see real and permanent change in the way schools and communities behave takes a high level of partnership and cooperation between all levels of the education hierarchies, each playing their role in creating a supportive environment for Safe Routes to School. While the work is not easy, it is essential that policymakers, administrators, educators and community members all share in the responsibility of helping create schools that allow students to not only learn, but to thrive.

Appendix: Glossary of Terms and Acronyms

Bicycle Rodeo – a clinic that helps teach children the importance of riding a bicycle safely and what skills and precautions they need to develop to ride safely.

Bicycle Train – a variation on the walking school in which adults supervise children riding their bicycles to school.

Body Mass Index (BMI) – a measure of body weight relative to height. BMI is a tool that is often used to determine if a person is at a healthy weight, overweight or obese, and whether a person's health is at risk due to his or her weight.

Built Environment – the human-made surroundings that provide the setting for human activity ranging in scale from personal shelter to neighborhoods to the large-scale civic surroundings.

Complete Streets – these policies ensure that the needs of all users—including pedestrians, bicyclists, public transportation riders and drivers—are considered in all transportation projects.

Coordinated School Health (CSH) – an education approach that engages school personnel, students, families and community members in integrating health promotion efforts across eight interrelated components of the education system to improve the health and wellness of students and staff.

Five E's – the five components of a comprehensive Safe Routes to School program, including evaluation, education, encouragement, engineering and enforcement.

Hazard Busing – when students who live close to school and would normally not qualify for busing are transported by school bus, due to unsafe traffic or safety conditions along the route to school.

Health Impact Assessment (HIA) – a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.

Joint Use – an agreement between two or more entities, usually a school and a city or private organization, to share indoor and outdoor spaces like gymnasiums, athletic fields, playgrounds or libraries to keep costs down and facilitate access by residents and students.

Local wellness policy – a set of goals and plans for nutrition education, physical education, physical activity, campus food provisions and other school-based activities designed to promote student wellness. Local wellness policies are required for all school districts participating in the National School Lunch Program.

National Center for Safe Routes to School – an organization that assists communities in enabling and encouraging children to safely walk and bicycling to school. The Center strives to equip Safe Routes to School programs with the knowledge and technical information to implement safe and successful strategies. **http://www.saferoutesinfo.org**

National Health and Nutrition Examination Survey (NHANES) – a survey research program conducted by the National Center for Health Statistics (NCHS) to assess the health and nutritional status of adults and children in the United States, and to track changes over time.

Neighborhood School – a school located in or near the community where the majority of students live, facilitating greater parent and community involvement in the school and higher levels of walking and bicycling to school.

Safe Routes to School – a comprehensive approach designed to make it safer for more children to walk and bicycle to and from school.

Safe Routes to School National Partnership – a fast-growing network of hundreds of organizations, government agencies and professional groups working to set goals, share best practices, secure funding and provide educational materials to agencies that implement Safe Routes to School programs. The Safe Routes to School National Partnership's mission is to serve a diverse national community of organizations that advocates for and promotes the practice of safe bicycling and walking to and from schools throughout the United States. **http://www.saferoutespartnership.org**

Safe Routes to School State Network – a project sponsored by the Safe Routes to School National Partnership specifically working to remove policy barriers to walking and bicycling to schools by implementing complete streets, changing statewide school siting and other policies and by implementing legislation that would result in funding or policy changes. **http://www.saferoutespartnership.org/state/network**

School Health Advisory Committee (SHAC) – a group of individuals representing the school and community that provide advice to the school system on aspects of the school health program.

School Travel Plan – a school travel plan creates safer routes for pedestrian and bicycle travel by identifying problem areas and proposing solutions. It serves as a basis for funding and is a way for a community to organize their plans for Safe Routes to School projects.

State Department of Transportation (DOT) – the department within each state that institutes and coordinates transportation programs and funding.

Walking Audit (Walkabout) – a review of walking conditions along specified streets conducted with a diverse group of community members, which can include: city planners, city council members, city chamber of commerce members, local residents, emergency responders, police, developers, business owners and other interested parties. Audits can last from one hour to an entire day and can involve walking, bicycling and bus travel.

Walking Wednesdays – a regular event, often held weekly or monthly, held to encourage large numbers of children to walk and bicycle to school safely.

Walking School Bus – a group of children walking to school with one or more adults; it can be as informal as two families taking turns walking their children to school to as structured as a route with meeting points, a timetable and a regularly rotated schedule of trained volunteers.

Walk to School Day (WTSD) – an annual, national event in which elementary school children are encouraged to walk safely to school. It is held annually on the first Wednesday of October.

Wellness Committee – a group of individuals including representatives from the school and community that develop, promote and oversee a multifaceted plan to promote student and staff health and wellness.

Youth Risk Behavior Surveillance System (YRBSS) – a regular national school-based survey conducted by the Centers for Disease Control and Prevention to monitor priority health-risk behaviors and the prevalence of obesity and asthma among youth and young adults.

Safe Routes to School National Partnership
www.saferoutespartnership.org

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