

SAFE ROUTES TO SCHOOL: Planning For a Safer and Healthier Way to School

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A young high school man walked along a 'goat path' and made notes about this barrier to safe walking for students. As part of Jackson, Michigan's Student Coalition for Walkable Communities, Zack volunteered to help with a walking audit for Frost Elementary School. The walking audit is part of the Safe Routes to School process, where diverse stakeholders take part in assessing environmental barriers to safe walking for school children. Following the walking audit, groups who have assessed different major routes for the school commute convene to discuss their findings. When it was time for Zack's group to summarize their view, he talked about the lack of sidewalks surrounding the school and then held up a chunk of concrete. "And in some places where there are sidewalks," he said, "I think they're in need of repair."



Photo courtesy of the Michigan Fitness Foundation.

Assessing the need for a sidewalk during a walking audit in Jackson.

The International Safe Routes to School Movement

Safe Routes to School is an international movement, and now a federal program, to make it safe, convenient and fun for children to bicycle and walk to school. The movement began 30 years ago, in Odense, Denmark, when the city sought to stem a rising tide of child pedestrian fatalities by separating pedestrian traffic from automobiles, improving the safety of street crossings, and calming traffic (i.e., slowing traffic). Their commitment to redesigning their communities resulted in an 80% reduction in child pedestrian and cyclist casualties within 10 years.

Safe Routes to School expanded to other countries. In Great Britain, bike lanes and traffic calming measures were installed. Bike use tripled within two years. Furthermore, in specified reduced speed zones, child pedestrian casualties decreased 70% and cycling casualties by 28%. Canada has an expansive Safe Routes to School initiative now as do other countries.

Safe Routes to School arrived in the United States in the late 1990's, slowly dotting the country one locale at a time. The Safe Routes movement was driven both by the strong commitment to the safety of children and an equally strong concern about the lack of physical activity among the nation's youth. When routes are safe, walking or biking to and from school is an easy way to obtain the regular physical activity children need for good health and to develop healthy lifestyle habits.

The level of physical inactivity, and overweight rates among all age groups have risen to the level of a public health crisis in the United States. In fact, the number of overweight children has doubled and teens has tripled in just 20 years. Obesity, in turn, increases the risk of diabetes, cardiovascular disease and some cancers. There has been a 10-fold increase in Type-2 (also known as adult-onset) diabetes among children between 1982 and 1994.¹

A variety of factors contribute to the all-too-frequent sedentary lifestyle of children. Changes in travel behavior account for some of this change. Today, nearly 90 percent of our trips are made by the automobile. One out of every four trips is short (one mile or less) and yet 75 percent of the time they are made with an automobile. In 20 years, foot travel dropped 42 percent for adults. Children's walking and biking trips to school dropped 40 percent in 20 years.² This is certainly reflected in the commute to school. The majority of school children are driven to school by bus or car, even when distance isn't a factor. In fact, of children who live within one mile from the school, more than half arrive by automobile. See Figure 1.

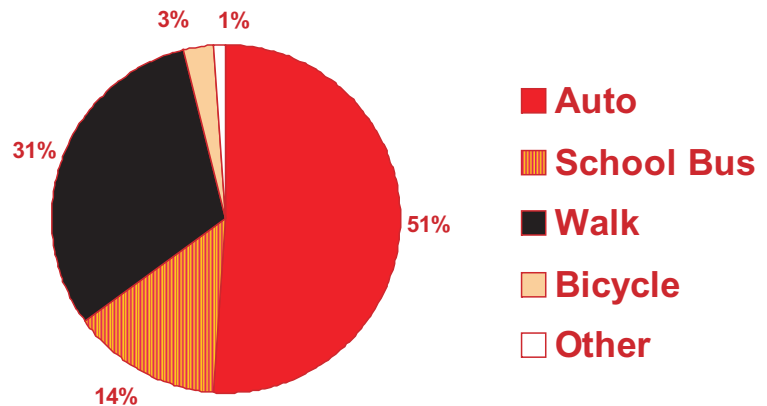
The exception to low rates of walking occurs in some inner city neighborhoods, where parents or other family members may not be able to drive children to school because of work schedules or the absence of an automobile. Children in these circumstances do walk regularly to and from school. The unfortunate irony is that while these children receive daily physical activ-

About the Authors

Risa Wilkerson leads a statewide effort to improve walkability and bikeability, including overseeing the Promoting Active Communities Award which recognizes communities who are making it easy for people to be active. As director of the only Active Living by Design project in Michigan, funded by the Robert Wood Johnson Foundation, Risa also oversees the pilot project in Jackson which focuses on active transportation and seeks opportunities for replication statewide. She has written articles about active community environments published in various state journals.

Candance Lee Kokinakis oversaw the two-year MDOT funded Safe Routes to School pilot project and directed the design and development of the Michigan Safe Routes to School Handbook. Kokinakis is a member of the National Safe Routes to School Partnership Steering Committee. □

Figure 1
How Children Get to School, Who Live Within One Mile



Calculations from the 1995 Nationwide Personal Transportation Survey. US Department of Transportation, Federal Highway Administration, unpublished data, 2000.



Photo courtesy of the Michigan Fitness Foundation.

Some routes to school include unprotected sidewalks.

ity, their routes to school are often very unsafe. Safe Routes to School initiatives have special meaning in communities where children traveling to school must walk in areas of high crime, high traffic volume, high speed traffic, dangerous street crossings, on sidewalks that are not separated from parking lots or pass by boarded buildings or busy bars.

The need for Safe Routes to School is high. In addition to the quality of life impact physical activity has for children, and the critical need to ensure the safety of children as they walk and bike to school, Safe Routes to School programs build highly effective local coalitions which, by addressing the safety of streets and walkways near schools, may have a positive influence in resolving related community-level issues such as neighborhood development, crime, business and overall walkability. It is common for Safe Routes to School initiatives to bring together parents, city officials, community-based organizations, transportation engineers, law enforcement agencies, school administrators, public health professionals, bicycle and walking group members, non-motorized design professionals, and planners, to work to improve the safety of walking and biking routes to school.

Michigan's Safe Routes to School History

In 2003, the Michigan Department of Transportation, through the Federal Highway Administration Transportation Enhancement Program, funded a two-year state Safe Routes to School (SR2S) pilot project which was housed at the Governor's Council on Physical Fitness/Michigan Fitness Foundation. The purpose of the project was to develop materials and proce-

dures for elementary schools in Michigan to use to begin and sustain SR2S initiatives.

The Michigan SR2S pilot project, with the support of Governor Jennifer M. Granholm and the involvement of a multi-disciplinary coalition of state stakeholders, did some heavy lifting in a short two years.

Accomplishments include:

- An active, multi-disciplinary state coalition of more than 25 agencies, departments, non-profits, for-profits and elementary school representatives
- 11 pilot elementary school/community SR2S teams (rural/urban/suburban and low-income), which have

continued their program past the two year pilot effort.

- Parent and student attitude, belief and behavior surveys to collect baseline data, evaluate early outcomes, and guide local decision making
- Michigan SR2S logo and social marketing material
- Michigan Safe Routes to School comprehensive, user-friendly Handbook and locally customizable materials
- SR2S training program for school and community stakeholders with a training curriculum which parallels the Handbook.

The pilot project drew heavily on the considerable talents of the coalition and its steering committee members consisting of representatives from Michigan Trails and Greenways Alliance; League of Michigan Bicyclists; Michigan Association of Planning; Michigan State University's Department of CARRS (Community, Agriculture, Recreation and Resource Studies); American Heart Association, Michigan State University Extension/Michigan Nutrition Network; Safe Kids Coalition; Michigan State Police and Michigan Departments of Community Health, Education, and Transportation.

The Tools

This state SR2S coalition continues to provide oversight, guidance, and capacity for SR2S initiatives across the state. Member organizations, through the use of their networks, will institutionalize SR2S and ensure it's longevity for Michigan children.

For example, at Belmont Elementary in Belmont, staff from the Michigan Trails



Michigan's SR2S toolkit.



Photo courtesy of the Michigan Fitness Foundation.

Ribbon cutting of an abandoned parking lot turned into a new drop-off, pick-up location to better protect children in Pontiac.

and Greenways Alliance (MTGA), a member of the coalition, worked with the school team and local officials to build a trail connection from the White Pine Trail to the school's playground. The connector is part of a comprehensive SR2S trail plan the team developed to take advantage of Belmont's close proximity to the White Pine Trail. The MTGA also worked with Stanton Elementary School in Stanton in a similar capacity.

Under the guidance of the state coalition, including assistance from pilot school teams, the Michigan SR2S How-to Handbook was designed and produced. Based on research into national and international best practice models, the Handbook provides all the materials and procedures to begin and successfully sustain Safe Routes to School. The Handbook is available in hard copy and will soon be available to download from the Michigan Safe Routes to School website (www.saferoutesmichigan.org).

One of the many features of the Handbook are the customizable materials that build community awareness and support for Safe Routes to School, and assist with conducting several key activities that structure the SR2S process and conclusions. While the activities in the Handbook are not unique to the international movement (with the exception, perhaps, of the comprehensive set of appendices and evaluation tools) the Handbook is unique in its sequential approach and the high level of user friendliness and efficiencies to assist busy volunteer SR2S teams.

The process outlined in the Handbook was undertaken by all 11 SR2S teams. The activities of this process are comprehensive, and most teams completed them within one school year. They include:

- Hosting a Walk to School Day to build community ownership and draw attention to the issue.
- Developing a team of diverse stakeholders with an identified champion.

just talk about the issue; they see it firsthand and partake in a mini visioning session to discuss recommendations.

- Completing a school property assessment. Community members and the SR2S team observe student and driver behavior (often chaos) at drop-off and pick-up time and realize they need to make the last 100 yards to the front door safe if their work is going to matter at all.
- Compiling all results and developing a prioritized list of recommendations, encompassing the 5 E's (see below) into a short- and long-range action plan.

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As an example from one of the pilot schools, Webster Elementary School in Pontiac had in attendance for their first walking audit their mayor, chief of police, representatives from the parks and recreation department and the manager of the Michigan Department of Transportation's Oakland County Transportation Service Center. Parents, school personnel and students also participated. The diversity of the Webster team enabled them to efficiently install new sections of sidewalks, turn an abandoned parking lot into a new parent drop-off/pick-up location, pave and mark a new bus drop-off/ pick-up area, receive increased police presence during morning and afternoon rush hours and install school zone signs and flashing lights on the busy state highway fronting the school.

- Surveying students and parents to further engage stakeholders and to obtain community-specific feedback.
- Conducting a walking audit of commonly used (or potential to use) routes to school. The walking audit expands community participation in a real hands on (or feet pounding the pavement) way. Groups do not

SR2S initiatives are currently underway in more than 30 Michigan Elementary Schools. To continue building capacity to assist all Michigan schools, the SR2S program also provides:

- SR2S Handbooks with a CD of customizable materials, a DVD with the story of Michigan's SR2S process and other resources.
- Ongoing SR2S trainings to assist development and sustainability of local teams.
- Technical assistance to schools, ranging from monthly newsletters, to a designated website, to a question hotline – and more.
- Everything needed to conduct walking audits (assistance obtaining maps, timelines, template invitations to community members, etc.).
- Parent and student surveys of attitudes, beliefs, and behaviors with the software for schools to tabulate data.
- Train-the-trainer program.

What Have We Learned So Far?

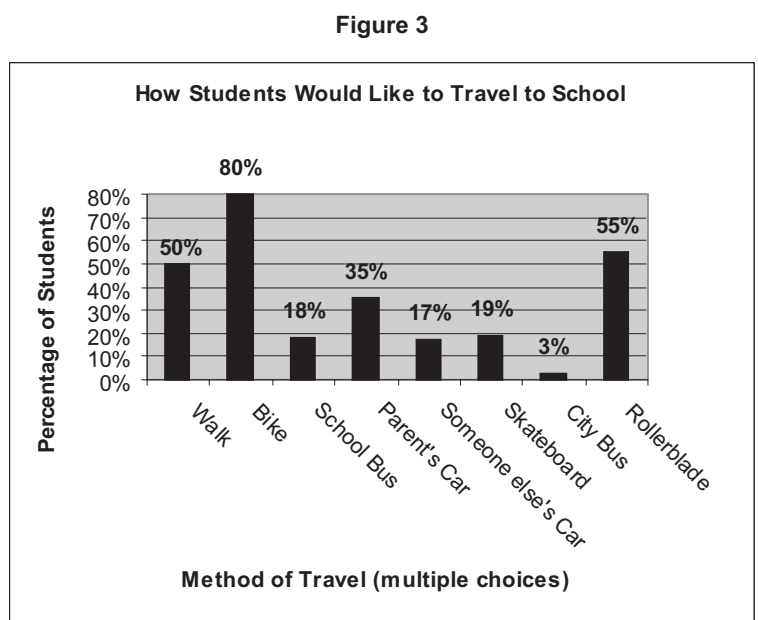
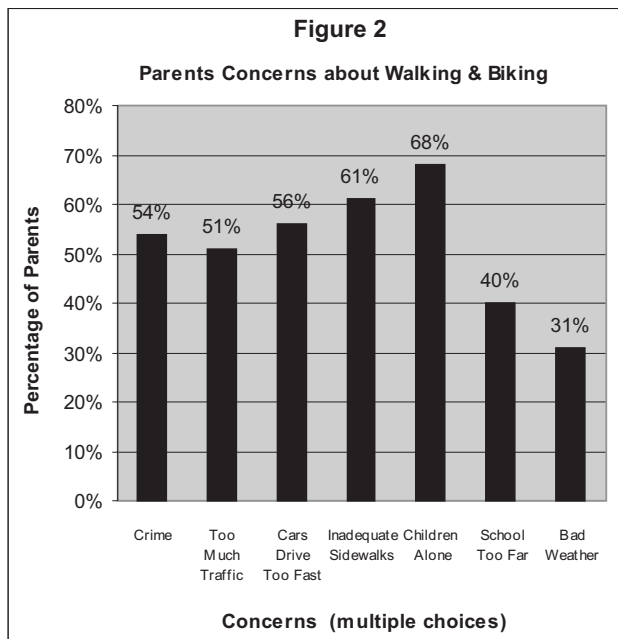
Research findings from the Michigan pilot project suggest that a number of factors contribute to student walking and bicycling choices. As the following results from one pilot school demonstrate, parents frequently reported concerns about traffic speed, unsafe street crossings, absence of sidewalks and perception of crime as barriers to walking or biking to school (see Figure 2). Elementary students in the Michigan pilot reported that they would prefer to walk to school, with biking to school being even more desirable (see Figure 3). When asked what changes they would like to see along the route, students said they want friends to walk with, more and clear sidewalks, no strangers, bike racks and less traffic (see Figure 4).

To address these issues, SR2S teams in Michigan and worldwide identify objectives in each of five areas:

- Education
- Encouragement
- Enforcement
- Engineering
- Evaluation.

Known collectively as the 5 Es, this framework for thinking about and planning for safe walking and biking to school, is of critical importance. The inverse analogy often used is: "If you build it they will not necessarily come." The reasons why students do or do not walk and bike to school must be considered when devising plans to increase safe walking and biking to school.

In many communities, no matter how safe the route to school, *education* and/or *encouragement* interventions are required to change attitudes, beliefs and motivation regarding walking or biking to school. Dif-



Figures 2-4 show sample findings from one of the pilot schools.

ferent educational objectives likely exist for parent populations than for student populations; however, from the need for healthy lifestyles to safe pedestrian and biking skills, education can be a critical ingredient in changing behaviors. Likewise, there may be an identified need to encourage behavior change with contests, games, and parent/student incentives. Many resources exist to help local teams identify education and encouragement strategies, and it is important that they draw upon these resources for a comprehensive approach.

Law enforcement strategies are a key to every successful Safe Routes to School initiative. While it is not realistic to expect daily patrol of school routes, the occasional presence of law enforcement can be an impor-

tant adjunct to other strategies and has proved successful in reducing dangerous driving behavior. A plan to collect information to *evaluate* changes that result from a Safe Routes to School initiative is also needed both to inform decision making and to help in developing a proposal for funding to implement school action plans.

The fifth E, *engineering*, is intervention most often thought of when assessing safety hazards and remedies. Non-motorized design professionals, transportation engineers and planners are critical members of school/community teams. These experts recognize infrastructure conditions, design barriers and traffic safety issues along potential routes that compromise and/or discourage safe walking and biking to school. In inner city settings where children have no choice other than to walk to school, infrastructure changes to slow traffic, increase safety of street crossings, separate pedestrians from cars entering and leaving school grounds can provide the improvement necessary to make routes safe for children to walk and bicycle to school. However, even when engineering changes are the key to safe routes, education of parents, students and the driving public may also be of critical importance and can not be overlooked.

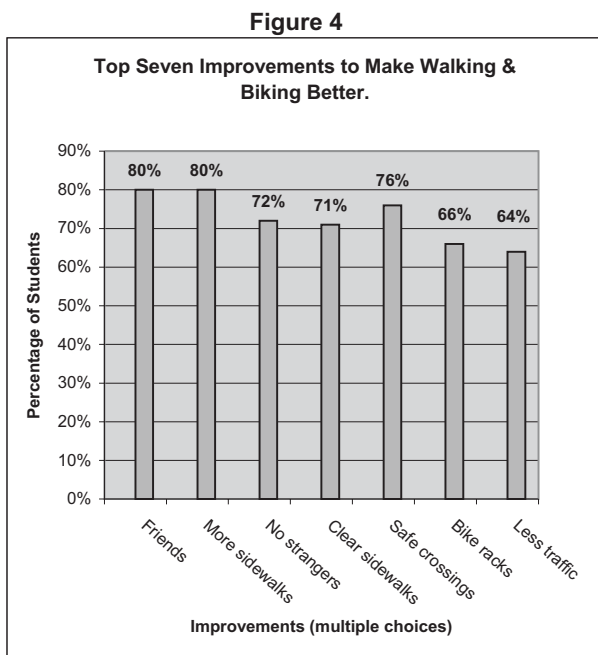
A partial list of pilot school success stories encompassing the 5 E's includes:

- 220 elementary schools participating

in Walk to School Day, the SR2S kickoff activity

- 11 pilot school SR2S action plans, based on survey and environmental assessment findings
- Re-design of four school parking lots to increase safety for pedestrians
- Sidewalk installation/repair at two schools
- Cleaning, signing and painting of abandoned (neighborhood) parking lot for an alternative drop off/pick up location to decrease traffic congestion and resulting hazards for pedestrians
- Flashing school zone lights and speed at an inner city school located on a five lane road
- Land-swap to create a path to an existing trail that students can use to walk and bike to school, away from motorized traffic
- Encouragement and education activities to promote safe walking and biking (e.g., parent information meetings, assemblies, PA messages, SR2S newsletters and brochures, walking clubs, walking Fridays, contests, parent incentive programs, parent patrols, walking school bus pilot programs, physical activity options before/after school and during lunch)
- Evaluation results indicating that students greatly prefer to walk or bike to school.

As a result of this successful project, Michigan is now one of a handful of states positioned to quickly implement the new Federal program. See article on page 10.



Keys to Successful Safe Routes to School Initiatives

Strong, Representative Team

The composition of the SR2S team is critical to the success of the initiative. Team members with expertise in the areas of education, transportation, non-motorized design, law enforcement, city or township government, recreation and many other areas provide the specialized knowledge to address the barriers to route safety and behavior change. Planners are a critical piece of the puzzle as teams often identify land use-related issues that may be, or should be, part of the larger comprehensive plans of their community. The Safe Routes team is a great opportunity to involve and engage citizens in the planning process.

Safe Routes to School Champion

This person is essential to maintaining the focus of stakeholders and team members on moving the planning process forward to its successful conclusion—a Safe Routes to School action plan. He or she may pass the torch to someone else along the way, but having a strong and passionate voice in the community can make all of the difference. This person does not need to have the organization and planning skills required on the team, and often shares the leadership role with a person who does.

Using the Established Process Outlined in the Handbook

Michigan's SR2S Handbook was developed in a systematic way with collaborative wisdom and experience. Pilot schools give testimony to the value of the process and the user-friendly format. Furthermore, it is anticipated that the process outlined in the Handbook will be part of the eligibility process for school-sponsored applications to the Michigan Department of Transportation for funding from the federal SR2S program.

Community Support

When the local or larger community is aware of and supports Safe Routes to School, change happens. This buy-in is important at many levels, from the school board and PTA to the Mayor's office. The collaborative spirit that develops when people work together to improve the lives of children is contagious and valuable, often resulting in a more cohesive community. One advantage for local planners is improved understanding by local residents about land use issues.

Safe Routes Complements Other Land Use Initiatives

Safe Routes fits nicely with many other land use initiatives. The Governor's Cool Cities initiative, launched in 2003 to revitalize communities, build community spirit, and retain "knowledge workers", found through surveys and public meetings that walkable communities was the most often identified characteristic of a "cool city".

Furthermore, one of the Michigan Land Use Leadership Council's recommendations was to create walkable neighborhoods. Safe Routes to School is specifically mentioned as a contributing initiative. Another recommendation is to provide a variety of transportation choices. This is a critical issue for those too young to drive, particularly when they do not have bussing or parental chauffeuring options.

Safe Routes to School is also consistent with smart growth principles. Quoting from the Smart Growth America website, "Smart Growth is about ...providing families with transportation choices so that kids can bike or walk to school, parents can choose to avoid traffic by taking transit, biking or walking to work and have more time and energy to spend with their family."³

Finally, school siting is a salient issue for Michigan and for Safe Routes to School. If new school construction rates continue at their current pace, it will become more and

more difficult to resolve walking and biking barriers. New schools are typically built on the outskirts (and beyond) of communities to meet high acreage standards for building new schools while minimizing land costs. This practice leads to greater distances between neighborhoods and schools, lack of infrastructure when sidewalks and/or connecting trails are not included in construction and financing plans (and they usually are not), and the created barrier of increased traffic volumes. The added transportation costs (of more busses, public infrastructure expansions and upgrades, etc.) are not usually part of the cost analysis equation.

Existing and historically common neighborhood schools offer the most promise for creating Safe Routes to School. Not only do they provide more equitable access for students who have limited mobility options, but they can also better serve the entire community. When the routes within a one-mile radius of all schools are safe and convenient for walking and biking, all residents can use these routes to walk and bike to other destinations.

Planners are an essential partner in building walkable, healthy communities. Safe Routes to School teams need the expertise planners bring to the table to understand how projects can fit into larger community visions and to understand appropriate solutions to infrastructure-related barriers. Planners can choose to become trainers themselves and/or to be involved with local SR2S teams in an advisory capacity. Safe Routes to School builds strong public/private partnerships and serves as a classroom for local stakeholders to better understand community design issues and processes.

All in all, Safe Routes to School is a triple winner. Planners win when they are seen as one of the local heroes making change happen. Communities win as civic engagement increases and neighborhoods become more walkable. And children win because they feel valued by the process, empowered by their increasing ability to navigate their world and are healthier because of their daily walk and bike to school. After all, who can argue that we can live without the goat path and loose chunks of sidewalk that are replaced with a safe route to school?

For more information on Safe Routes to School in Michigan, visit www.saferoutesmichigan.org. □

Footnotes:

1. James O Hill, Holly R. Wyatt, George W. Reed and John C. Peters. *Obesity and the Environment: Where Do We Go From Here?* www.sciencemag.org.
2. Richard E. Killingsworth and Jean Laming. *Development and Public Health: Could Our Development Patterns be Affecting Our Personal Health?* **Urban Land**, July 2001.
3. <http://www.smartgrowthamerica.com/children.html>.



Photo courtesy of the Fitness Council of Jackson.

New median improves the safety of children crossing a commonly used intersection in Jackson.