



# NON-INFRASTRUCTURE TOOLKIT

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## NON-INFRASTRUCTURE TOOLKIT

A variety of non-infrastructure tools can increase pedestrians' and bicyclists' safety. Non-infrastructure tools in SRTS School Travel Plans are generally described as education, encouragement, enforcement and evaluation.

- **EDUCATION** – Teaching children and parents about transportation choices, instructing them in lifelong bicycling and walking safety skills and launching safety campaigns.
- **ENCOURAGEMENT** – Using events and activities to promote walking and bicycling.
- **ENFORCEMENT** – Partnering with local law enforcement to ensure traffic laws are enforced in the vicinity of schools and initiating community enforcement such as crossing guard programs.
- **EVALUATION** – Monitoring and documenting outcomes and trends by collecting data, including before and after implementing a SRTS program.

In some situations, changing the infrastructure is the best way to counteract a safety hazard; however, infrastructure improvements are costly to build and take several years to develop. Even after completion, a change in infrastructure may not be enough to change students' and parents' decisions about how to travel to school.

Non-infrastructure items are implemented at a low cost and relatively quickly. In some cases, non-infrastructure programs are scaled to a wide audience (i.e. several schools instead of just one) with relative ease. Education, encouragement, enforcement and evaluation are valuable non-infrastructure tools to create safer, friendlier streets for pedestrians and bicyclists.

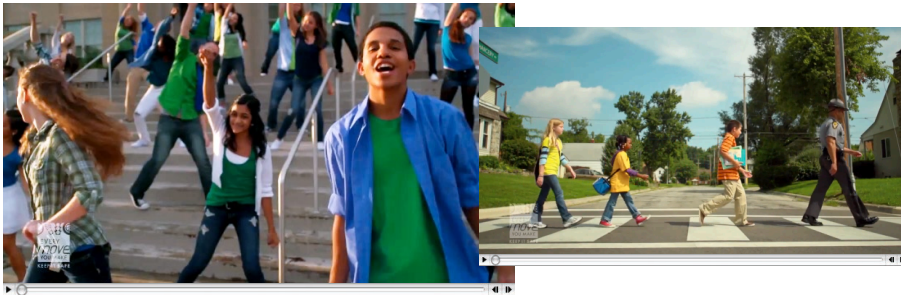
## NON-INFRASTRUCTURE PROGRAMS

This summary is an overview of non-infrastructure programs for communities and school districts across Ohio to use or modify. Education initiatives include recommended audiences to help target instruction appropriately. This list, while not all-encompassing, is a great reference to begin identifying action steps that fit with your community's or school's efforts.



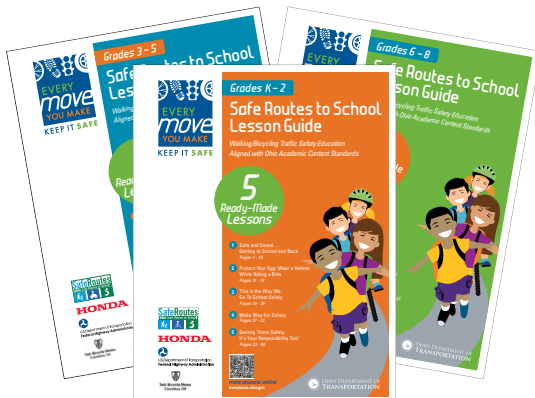
# EDUCATION

**STATEWIDE SAFETY CAMPAIGN** ODOT created a campaign called “Every Move You Make, Make It Safe” ([walk.ohio.gov](http://walk.ohio.gov)) that provides educational safety materials for students, parents and teachers. This educational outreach effort, including a show choir video, lesson guides that align with Ohio Department of Education content standards, travel tips and other materials, is designed to make walking and bicycling safety education easy and appealing to young students. *Recommended Audiences: K-8 students, non-formal education programs*



**SAFE ROUTES TO SCHOOL LESSON GUIDES** Students develop brainstorming, reporting, interviewing, observation, investigation, group collaboration, design and other skills using the SRTS Lesson Guides ([walk.ohio.gov](http://walk.ohio.gov)). There are three sets of guides that are age and grade appropriate (K-2, 3-5, 6-8), and align with Ohio Department of Education’s Ohio Academic Content Standards. Lessons cover math, science, writing, speaking and listening, and incorporate walking and bicycling safety. They feature vocabulary words, student worksheets, material lists, day plans, literature and technology connections, games, experiments and extended learning. Students can even play an online game modeled after JEOPARDY.

The lesson guides can be integrated into the annual curricula of specific grades, whole schools and/or entire districts. This is an effective approach to institutionalize Safe Routes to School concepts. *Recommended Audiences: K-8 students*



## IT'S IN ACTION EDUCATION

Since 2013, a Gahanna (OH) Middle School South teacher has incorporated biking and walking safety into her 6th grade health class. Each quarter, students participate in elements of the “Text-astrophe!” activity from the 6-8th grade lesson guide that teaches students how distractions and visibility impact walking and biking to school safely. There’s also a bike education day that includes information on local and state laws, and bike helmet safety. All 200 6th graders participate annually.

**BICYCLE RODEO** A bike rodeo is an event that gives bicyclists the opportunity to practice and develop skills to help them ride safely, including bicycle skills activities, exhibits and games. Rodeos are often held for a few hours on a weekend. Numerous obstacle courses are set up with chalk and traffic cones. The goal of a bicycle rodeo is for participants to learn, practice and demonstrate their bicycle handling skills in a fun, noncompetitive atmosphere. *Recommended Audiences: K-8 students (more technical for 4-8), non-formal education, YMCA/ community center/cycling club partnership programs, after-school youth programs, parks and recreation programs*

**SAFETY TOWN/SAFETY CITY** Safety Town/Safety City is an interactive pedestrian, traffic and life safety program for young children. Many communities host the program through their police departments, often in partnership with local non-profit organizations like the Red Cross. Programs are one-two weeks long and are held inside or outdoors with a mix of classroom instruction and outdoor practice in a miniature city complete with streets, sidewalks, small buildings, traffic lights and stop signs. During Safety Town students learn about a variety of situations and what they should do to remain safe, including:

- Pedestrian and traffic safety
- Fire prevention
- School bus safety
- Poison/substance avoidance
- Animal safety
- Personal safety, including stranger danger
- Home safety

*Recommended Audiences: Pre-K -1*



**RAILROAD CROSSING SAFETY** Operation Lifesaver ([oli.org](http://oli.org)) is an organization with a network of certified volunteer speakers and trained instructors that offers rail safety education programs at no cost to schools. It is co-sponsored by federal, state and local government agencies, highway safety organizations and America's railroads. Operation Lifesaver has videos, educational brochures, instructional information and other materials available for audiences of all ages. *Recommended Audiences: K-8 students*



**SCHOOL ASSEMBLY** A school assembly educates students about walking, bicycling and traffic safety at a special event during the school day. Assembly topics include: a safety discussion or presentation by local law enforcement officers, or an environmental education session that highlights impacts of clean air and reduced gasoline consumption. Consider a prize giveaway at the end. This could be bicycles donated by a local bike shop, or other prizes donated or sponsored by local businesses. *Recommended Audiences: K-8 students*

**PARENT MEETING** Hold a meeting for parents at the beginning of the school year, or when launching the SRTS program, to educate and inform them about Safe Routes to School and what to expect with the school's participation in it. *Recommended Audiences: Parents*

**PERSONAL SAFETY EDUCATION** Fear of abduction or assault is a common worry for parents that prevents them from allowing their children to walk or bike to school. Education initiatives address parents' perceptions of this danger and teach children about real dangers that exist. Working together, local law enforcement agencies and schools teach children about stranger danger. *Recommended Audiences: Parents, K-8 students, non-formal education*

**PARENT COMMUNICATION** Articles in backpacks, printed or emailed newsletters, information on school websites and emails are effective ways to educate parents. Some schools hand out informational flyers to parents as they drive up to the school. In addition, a SRTS committee may want to invite the school PTO/PTA to address transportation issues to parents. Information about Share the Road and driver safety education programs also could be included in communications. *Recommended Audiences: Parents*

**GIRLS IN GEAR** Girls in Gear ([bike.ohio.gov](http://bike.ohio.gov)) is an empowerment program using bicycling education to instill confidence, physical activity and nutrition habits in girls ages 9-14. In addition to bicycle safety and mechanics instruction, girls receive urban planning, public speaking and critical thinking experiences and instruction throughout the eight-week course. Girls then apply these development tools to any part of their lives today, and well into adulthood.

*Recommended Audiences: 4-8 female students*

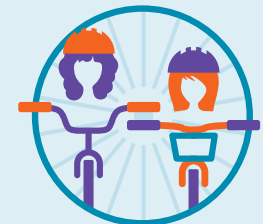


**INJURY PREVENTION EDUCATION** ThinkFirst Foundation ([thinkfirst.org](http://thinkfirst.org)) has chapters throughout the country that provide injury prevention programs to students that were developed in collaboration with the National Highway Traffic Safety Administration (NHTSA) and the American Academy of Pediatrics. Program components include lesson guides, illustrated worksheets and multilingual educational videos. "Street Smart," a safety superhero, visits young children while emphasizing safe bike riding and vehicle safety. Each year ThinkFirst chapters provide thousands of educational presentations to schools and other groups of all ages to raise awareness on preventing injuries. *Recommended Audiences: K-8 students*

**AFTER SCHOOL BIKE CLUBS** After school bike clubs focus on teaching safe bicycle skills and cover topics such as bicycle maintenance. Bike clubs are marketed as a fun, after-school activity and are led by teachers or volunteers from local bicycle organizations. A bike club also encourages children to bicycle by keeping track of their mileage and rewarding them for being physically active. A biking club gets students and staff excited about making bicycling a part of their daily routine. *Recommended Audiences: 4-8 students, parks and recreation programs, YMCA/community center programs*

## E'S IN ACTION EDUCATION

At one of last year's Girls in Gear sessions, participant Keagan had this to say about the program, "GiG was so fun! We learned bike mechanics, urban design, road safety and hand signals for bike riders on the road. I loved learning the layout of bikes and what each part is named. I have been able to share what I have learned and all of this information has made me a better cyclist."



**GIRLS IN GEAR**



**SCHOOL-PRODUCED WALK SMART MAPS** Walk Smart maps have recommended walking and bicycling travel routes to educate parents and students about the best route to school. Some maps also feature school crossing guard locations, crosswalk locations and existing traffic signals to inform students and parents of area conditions. *Recommended Audiences: parents of K-8 students, school staff, crossing guards*

**STUDENT-PRODUCED MAPPING ACTIVITIES** Mapping activities, either in class or at a separate event, educate children about the best route to travel and allow them to view their trip in a new way. Children draw buildings, parks and landmarks on their maps as a fun way to make them more interested in their surroundings as they walk. *Recommended Audiences: K-8 students, clubs, after-school programs*

**HOW WE ROLL** These instructor-led bicycle tours ([yaybikes.com/programs/how-we-roll/](http://yaybikes.com/programs/how-we-roll/)) teach bike traffic laws and offer practical riding tips while on fun, intimate bicycle tours of a neighborhood. These riding tours have increased participants' confidence levels with understanding bicycle-related traffic laws and riding on the roads. This national award-winning educational methodology is delivered as a stand-alone bicycle tour or as a full-scale transportation behavior change campaign allowing students to practice safe and legal bicycling skills with a certified instructor. Rides and campaigns are tailored to the unique needs of each group. Parents may also participate with their children in the tours. *Recommended Audiences: parents, volunteers, clubs, after-school programs, school staff, etc., 3-8 students*



## E'S IN ACTION EDUCATION

In Chagrin Falls, OH, students and parents use a specially-created map to plan their walk or bicycle ride to school that identifies recommended routes, intersections with crossing guards and more. Maps are picked up during school registration or downloaded from the Safe Routes Chagrin website — <http://saferouteschagrin.com/tools/school-route-maps/>



## ENCOURAGEMENT

**“FIRE UP YOUR FEET”** Fire Up Your Feet ([www.fireupyourfeet.org](http://www.fireupyourfeet.org)) is a core program of the Safe Routes to School National Partnership. Fire Up Your Feet encourages families, students and schools to work together and create active lifestyles that inspire all children to be healthy and physically active. Centered on the school day, the website provides a full range of age-appropriate resources and educational materials to encourage physical activity to, from and at school. These online resources are available to any school or PTA/PTO group in the country.

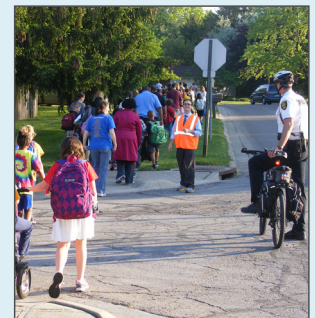


**ARRIVAL AND DEPARTURE REGULATIONS** Supportive regulations at a school encourage walking and bicycling by prioritizing those modes of active transportation. Providing clear and abundant bicycle parking in front of a school shows that cycling is a priority. Allowing students who walk or bike to leave a few minutes early at the end of the day encourages more students to choose to walk or bike. These regulations have the added positive effect of making parking lots and school zones safer and more orderly at the beginning and end of the school day.

**WALK AND BIKE TO SCHOOL DAY** Special events are one type of encouragement activity that provide a way for families to break their routines and try something new. They also highlight school travel issues to local leaders and build political support for SRTS funding. For example, in 2013 Walk To School Day was on October 9 and featured about 4,000 events across the U.S. and additional participation from more than 40 countries. The first National Bike to School Day occurred May 9, 2012 at schools in almost every state. Ohio participates in these events and identifies October of each year as Walk and Bike to School Month. When a majority of the school participates in a special event, it creates a snapshot of what life could look like if every day was a “Walk and Bike to School Day.” Get planning resources and more information online at [www.walkbiketoschool.org/get-set/plan-the-event/plan-event-in-7-days](http://www.walkbiketoschool.org/get-set/plan-the-event/plan-event-in-7-days).

### IT'S IN ACTION ENCOURAGEMENT

Gahanna Lincoln Elementary School has participated in Walk and Bike to School Day since 2009. The event has grown from 173 participants in the fall of 2009 to more than 380 students who walked or biked in the fall of 2013 — almost 90% of the student population. The event has had significant support and participation from city officials, police, school administrators, local businesses and parents over the years.





### **WALKING SCHOOL BUS AND BIKE TRAIN** Walking School Buses

([www.walkingschoolbus.org](http://www.walkingschoolbus.org)), ([www.livewelltoledo.org/objectives/objective-2](http://www.livewelltoledo.org/objectives/objective-2)), ([morpc.org/transportation/bicycle-pedestrian/walk-bike-to-school/](http://morpc.org/transportation/bicycle-pedestrian/walk-bike-to-school/)) and Bike Trains ([guide.saferoutesinfo.org/walking\\_school\\_bus/bicycle\\_trains.cfm](http://guide.saferoutesinfo.org/walking_school_bus/bicycle_trains.cfm)) create opportunities for parents to walk and bike with groups of children who live together in a neighborhood. These activities help eliminate many parental fears of walking and bicycling by ensuring a supervised commute and creating strong community cooperation. Children get to practice safe pedestrian and bike skills, have fun, increase socialization time with friends and arrive at school alert and ready to learn. Schools hold these activities periodically, weekly or daily depending on the level of enthusiasm and support.

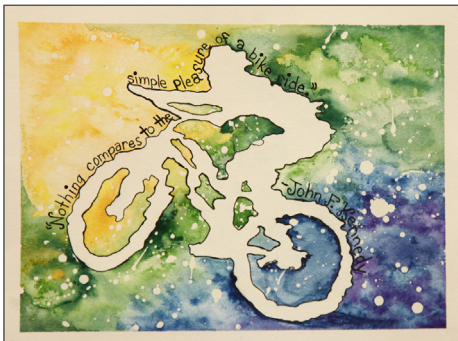


**WALKING CLUBS** A walking club is an easy, inexpensive and fun way to encourage children to walk by keeping track of their mileage and rewarding them for being physically active. A walking club gets students and staff excited about making walking a part of their daily routine.



**CONTESTS** Contests add value and excitement to SRTS walking and biking encouragement programs. Contest sponsors also often provide graphics and sample materials, such as posters and pictures, at no cost to participating schools and organizations. Many contests start locally and progress to state and national levels. They all offer exciting opportunities for kids to show their knowledge, gain recognition and win great prizes. Here are some to consider:

- Walk and Bike Across America ([www.saferoutesinfo.org/program-tools/walk-and-bike-across-america](http://www.saferoutesinfo.org/program-tools/walk-and-bike-across-america)) is a contest that encourages classrooms to track the overall number of miles children have covered by walking and bicycling, then plot the distances consecutively on a map. The exercise is a math lesson, and becomes a geography lesson too, as students “visit” the locations on the map of the United States.
- Similarly, a Frequent Miles Program (<http://guide.saferoutesinfo.org/encouragement/index.cfm>) is a school contest where kids track how they come to school and receive points for “pollution-free” miles.
- Another is the Saris Parking 5th Grade National Poster Contest (<http://sarisparking.com/why-saris-parking/advocacy-efforts>). Fifth graders learn about the benefits of bicycling and create a poster to illustrate them.



2014 National Poster Contest Winner

**SAFETY PLEDGE** Parents and high school students are encouraged to sign a pledge that they will avoid distracted driving, drive at a safe speed and abide by traffic laws, especially during school arrival and dismissal times. Similarly, young students sign a pledge to practice safe walking and bicycling behaviors. The act of signing a pledge encourages awareness of safe traveling habits.

**MEDIA CAMPAIGN** Radio ads and/or public service announcements during prime commute times are effective encouragement tools. Combining these with an overall media campaign that includes newspaper articles and/or television news stories make an impact by drawing attention to the importance of safe driving and highlighting the local SRTS program.

**YARD SIGNS** Yard sign campaigns, such as “Drive 25, Keep Kids Alive” ([www.keepkidsalivedrive25.org](http://www.keepkidsalivedrive25.org)), remind drivers to slow down. Communities can offer these signs to residents to encourage individuals to drive the speed limit. They are particularly useful near schools and along student walking and biking routes. The act of putting out a yard sign also reinforces residents’ support for a safe community.

**PARTNERSHIPS TO BOOST EXCITEMENT** Walking and biking events and programs could solicit support from local sports teams, a professional team mascot, cultural institutions and media personalities such as local news anchors to encourage greater awareness of the local SRTS program or a specific event.

**HEALTHY FUNDRAISING** A Fun Run held on school grounds or in a nearby park is a healthy and fun fundraising activity. This type of school fundraiser promotes physical activity instead of the traditional activity of selling candy bars. A Fun Run gets students and parents in the habit of walking and exercising. Using no-cost, online resources, like those at [www.fireupyourfeet.org](http://www.fireupyourfeet.org), makes healthy fundraising fun and profitable.

**EQUIPMENT GIVEAWAYS** Students may not have the proper equipment to safely bike to school. While this could happen at any school, low-income students in particular may not have the funds to purchase bike helmets, locks, lights or other safety items. A relatively low cost way for schools to encourage biking is offering discounted, loaned or free bicycle safety equipment to students. A program is directly coordinated through the school or is a part of partnerships and fundraising with outside organizations.



**GIVEAWAYS AND RESOURCES** Many national organizations and companies offer giveaways and free resources to support walking and cycling efforts at schools. They include:

- Clif Kid ([facebook.com/ClifKid](https://facebook.com/ClifKid)), in partnership with the Safe Routes to School National Partnership, provides program toolkits for annual Walk and Bike to School Day events at no charge.
- The National Center for Safe Routes to School ([www.saferoutesinfo.org](http://www.saferoutesinfo.org)) offers training and webinars to improve and expand SRTS programs.
- International Walk to School Day ([www.walkbiketoschool.org](http://www.walkbiketoschool.org)) has event ideas, curricula, graphics for posters and fliers, mileage tracking templates and more.

## E'S IN ACTION ENCOURAGEMENT

Students from Madison Elementary School in Painesville Township, OH, sign their Walk to School Day poster. The poster is part of a Walk and Bike to School toolkit distributed by ClifKids.



Josh Pennock

# ENFORCEMENT

**ADULT CROSSING GUARDS** Crossing guards safely guide children across intersections near schools. The four main components of a successful crossing guard program are location, training, equipment and funding. Having crossing guards is a good way to counteract parental fears and create safer routes for students to travel on their way to and from school.

**PERSONAL SAFETY ENFORCEMENT** Local police departments work to make neighborhoods more walkable and bikeable for students and improve their personal safety by having a presence during arrival and dismissal, when students are traveling between home and school. Police officers are a presence against stranger danger, deter crime and bullying, clean up graffiti, use gang task forces, deal with stray dogs and keep local parks safe for children to play. These types of measures instill confidence among students and parents.

**SAFE PASSAGE ROUTES** In areas where crime is a concern, adult volunteers monitor and report criminal activity during school arrival and dismissal times. This formal observation along designated walking and biking routes supports safer environments for students. While a separate program (<http://cps.edu/Pages/safepassage.aspx>), it is often coordinated in conjunction with crossing guard, law enforcement or block watch programs around schools.

**SPEED TRAILERS AND RADAR SPEED SIGNS** Speed trailers and signs show drivers how fast they are going with the goal of slowing drivers down. They collect speed data throughout the day and conduct traffic counts. This information is used to deter speeding as well as to identify times during the day when more enforcement is needed. Each Highway Patrol District in Ohio (<http://statepatrol.ohio.gov/counties.stm>) has a speed trailer that local jurisdictions can request.



## E'S IN ACTION ENFORCEMENT

Beginning in 2014, the Ohio Department of Transportation's Local Technical Assistance Program (ODOT/LTAP) will offer free adult crossing guard training to Ohio communities and school districts. To request information about scheduling training in your area, contact ODOT/LTAP or your ODOT Safe Routes to School District staff person at [www.walk.ohio.gov](http://www.walk.ohio.gov)

**POLICE TRAINING** Officers may benefit from training before starting a SRTS enforcement campaign. Some states such as Wisconsin provide a course designed to improve safety by educating law enforcement about pedestrian and bicycle rights. A course could provide information about the most common violations that cause pedestrian and bicycle crashes, what violations need better enforcement and how to raise awareness about accident prevention.



**REMOTE DROP-OFF ENFORCEMENT** Creating remote school drop off areas near a school address air quality issues and mitigate the traffic danger caused by the convergence of cars, buses, pedestrians and bicyclists. Not allowing parent drivers to approach the school – and instead using a nearby remote drop-off area – reduces congestion around the school. It also benefits students who exercise before the school day begins.

**NO IDLING POLICIES** Students, parents, school staff and bus drivers are exposed to air and noise pollutants in front of schools. The exhaust from idling school buses and cars also enters the air inside the school building through windows, open doors and the ventilation system. Creating and enforcing effective regulations that restrict idling while parents wait for their children to be dismissed from school minimizes exhaust, which exacerbates asthma and existing allergies.

**BICYCLE CRIME PREVENTION** Law enforcement and school officials should monitor bicycle theft and vandalism at school bike racks. This makes students and parents confident that their property will not be damaged or stolen if they ride their bikes to school.

**STUDENT SAFETY PATROL** Students assist with school arrival and departure as part of a Student Safety Patrol program. These students are approved by the school administration and supervised by a teacher, staff member or parent volunteer to coordinate traffic and pedestrian flow at and near the school.



# EVALUATION

**SURVEYS OF PARENTS AND STUDENTS** These help to identify the reasons why parents are driving their children to school instead of allowing them to walk or bicycle. They also provide insight into what changes might encourage a shift in their behavior. Student surveys elicit the attitudes of youth and help demonstrate how to craft a program that will be appealing to the younger generation. Repeated surveys after the initiatives are implemented measure how successful changes in behavior have been, as well as what needs to be improved.

**STUDENT IN-CLASS TRAVEL TALLIES** These take a baseline measurement of the number of students who walk, bike, carpool, take the bus or get a ride to school from a caregiver. The tallies help gauge the effects of non-infrastructure programs on student travel choices. These should be administered over the course of several days in September and May each school year and include a record of the weather on the day of the tally. Over time, these provide quantitative results to show the impact of initiatives.

**PEDESTRIAN AND BICYCLE COUNTS** Unlike tallies taken in a classroom, pedestrian and bicycle counts quantify travel at physical street locations. Pedestrian and bicycle counts taken before implementing initiatives provide a baseline of overall numbers and trends. The relative effectiveness of the solutions is evaluated based upon periodic pedestrian and bicycle counts conducted by the school or local government.



**TRAFFIC INFRACTIONS, SPEEDS, CRIME AND CRASH DATA** Using data collected by law enforcement and local government, comparisons are made regarding traffic, crime and safety data from before and after the implementation of walking and biking initiatives. This is a way to evaluate walking and biking programs' overall impact on the community.

**REVIEW DISTRICT AND SCHOOL POLICIES** Annually review the district's and participating schools' policies to ensure they continue to encourage walking and bicycling to school.

## PROGRAMS VS. POLICY

The Safe Routes to School National Partnership differentiates between **policies**, which are all-encompassing and institutionalize processes, and **programs**, which are implemented actions specific to a school or district. While individual programs can improve the walking and bicycling environment for Ohio's school children, policies can lead to lasting changes, increased funding and support programs in the long term. The Safe Routes to School National Partnership has noted that a "health in all policies" approach is truly the key to developing lasting improvements that comprehensively change the built environment to support active transportation.

The Safe Routes to School Local Policy Guide, developed in 2011, was created to guide the shift from implementing programs to implementing policy. The National Partnership describes how effective policies can lead to increased funding and sustained support for walking and bicycling programs in the long term. In some instances, policy change needs to occur across all departments in city, county, school and state governments. Issues such as land use, parking, school siting, speed limits and many others often need comprehensive policy change to effectively be addressed.

Policy language can often be intimidating, so in partnership with Changelab Solutions, the National Partnership developed the Safe Routes to School District Policy Workbook ([changelabsolutions.org/safe-routes/welcome](http://changelabsolutions.org/safe-routes/welcome)), a free, online tool to help stakeholders and decision makers research and create policies that support active transportation to and from school, using easy-to-understand and appropriate language. After selecting the provisions to include in the policy, the document can be downloaded for easy editing and presentation.

Policy change can be a multi-faceted process over several years. It is about changing priorities on how to address transportation demand and land use. This requires a comprehensive approach of political support, coordinated transportation and land use policies, enabling programs, adequate funding and implementation champions, among other things. The "health in all policies" approach should be continually pursued as part of a larger effort throughout the community and state, and can be addressed in health and wellness policies, community master plans, transportation plans and development plans, in addition to School Travel Plans and district wide policy.

*Acknowledgements: Special thanks to the Kate Moening, advocacy organizer, with the Safe Routes to School National Partnership, who assisted with content, research and editing of the ODOT Non-Infrastructure Toolkit.*

