Syracuse Metropolitan Transportation Council

CITY OF SYRACUSE SAFE ROUTES TO SCHOOL MANUAL

Phase 1: Background Research (White Paper)

I. Introduction

In response to the Syracuse Metropolitan Transportation Council (SMTC)'s project solicitation for the 2019-2020 Unified Planning Work Program (UPWP), the City of Syracuse submitted a proposal for a "Safe Routes to School Manual" to create a process and produce a manual to aid schools or community groups in creating safe walking routes to school for students. This white paper is a piece of the overall study and summarizes existing safe routes to school initiatives within the City of Syracuse and Onondaga County, and existing example guidebooks from around the country.

This study, per the scope of work, consists of three components: this white paper, the creation of a Safe Routes to School Guide, and a case study. The guide and case study will be done in parallel to provide a clear process with an example of a route being created for a school within the City of Syracuse. This white paper provides valuable research and information on what has currently been done in the community, and how we can standardize the process and implement best practices for safe routes.

II. What are safe routes to school (SRTS)?

Safe Routes to School (SRTS) is an initiative to promote students across the country walking and bicycling safely to and from schools. There are multiple elements for a successful safe route including planning, education, infrastructure improvements, enforcement, wayfinding, and more. There are also multiple health benefits with students walking to school by promoting exercise, mental health, and preventing serious health conditions such as childhood obesity.

The United States Department of Transportation (USDOT) states that nationally, 10 percent to14 percent of car trips during the morning rush hour are for school travel. Safe Routes to School initiatives help improve safety and levels of physical activity for students and can be implemented by a department of transportation, local government, school district, or even an individual school.

Investing in safe routes to school can create a community asset. Establishing a route to school can connect points of interest along the route such as libraries, community centers, and parks. By providing links and increasing safety, students

will feel more comfortable walking to school. Once a route is discussed and chosen, infrastructure upgrades for safety such as sidewalk improvements, intersection crossings, and wayfinding will enhance students' safety and will encourage parents and schools to promote walking/bicycling to schools.

A safe route to school can take different forms. It could be a signed route that individual students can take to and from school. A "walking school bus" is another form where an adult leads a group of students along the route and continue to meet and pick-up additional students. It can be as informal as two families taking turns walking their children to school or as structured as a route with multiple meeting points at certain times, with a rotating schedule of volunteers. This provides an additional layer of safety with a group of students under adult supervision.

So who is involved in a safe routes to school project? These routes can be established by several different groups and should include a variety of different voices in the planning of the route. Parent/Teacher Organizations (PTOs), school faculty members, parents, student-led groups, and municipal employees can all help to develop a route for the students. The development of this white paper, guidebook, and case study should help these groups by providing a step-by-step process that they can follow to develop a route and work with the City of Syracuse DPW for implementation.

Safe Routes to School is supported by the U.S. Department of Transportation (USDOT) and the New York State Department of Transportation (NYSDOT). Both have websites with numerous SRTS resources:

https://www.dot.ny.gov/safe-routes-to-school

https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs

There is also a National Center for Safe Routes to School, which is part of the UNC Highway Safety Research Center: www.saferoutesinfo.org

In addition to being an approach to planning that promotes walking to school, SRTS was a specific funding program in a previous version of the federal surface transportation law. The current law, the Infrastructure Investment and Jobs Act (IIJA), does not include SRTS as a stand-alone funding program. However, SRTS-type projects are eligible for funding within the Transportation Alternatives Program or within the Highway Safety Improvement Program.

https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/tap-cmaq

III. Existing Safe Routes to School Initiatives within Onondaga County

City of Syracuse

Over the past few years, safe routes to school have been identified for four schools within the Syracuse City School District: Delaware Primary School, Dr. Weeks Elementary, Franklin Elementary, and Lincoln Middle School, although only

the Dr. Weeks route has had signs installed. The SMTC reviewed the process that was used to identify each of these routes.

In 2017, the Onondaga County Health Department partnered with Trinity Health's Transforming Communities Initiative to support the reduction of childhood obesity on the North and West sides of Syracuse by creating Safe Routes to School at Dr. Weeks and Franklin elementary schools.

The stated objectives of this initiative were:

- Increase safe and active commuting of students within SCSD
- Increase safety of each route taken by children commuting to school
- Increase education and awareness surrounding Safe Routes to School Principles
- Increase safety education with students, parents, faculty, and staff
- Implement Safe Routes to School principles at pilot schools
- SCSD hire permanent adult to oversee walks
- Replicate this model at additional school buildings of SCSD within Trinity target areas

Below is a brief summary of research on each of these locations. The summary includes the data collected, how they identified a route, key stakeholders that participated, other public involvement, and implementation. Maps with data were created but there was not one standard process for these initiatives. By reviewing these projects that have already been analyzed in the community, lessons can be learned and standardized with the creation of the City of Syracuse's Safe Routes to School Guide.

1. Delaware Primary School

This initiative was led by the Onondaga County Health Department and HealtheConnections. Delaware Primary School had 587 students enrolled in 2019-2020 and the majority of students (52%) live less than 1 mile from school and are ineligible for bussing. These students are considered "walkers."[1]

Data collected:

- Number of student walkers by census block group
- Bicycle and pedestrian crash locations
- Crime frequency by block
- Routes for the City of Syracuse's Sidewalk Snow Removal Pilot Program as of winter 2019-2020.

[1] 2019-2020 data provided by the Syracuse City School District.

- A walkability assessment was done looking at sidewalks and at intersections on streets around Delaware.

A Walkability Assessment Checklist was created for taking into the field and mapping the comfort level of a person walking along a particular route. It included sidewalk condition, if there are safe crossings, traffic, and overall feeling of safety.

Possible routes were identified that met the following two criteria: streets that many walkers would filter onto as they head to school, and do not have any blocks with crime "hot spots" (defined as blocks that had more than five crimes during the 2018-2019 school year). The resulting six routes were posted on a map. Two routes were selected, which together form one continuous route connecting Delaware Primary School and Seymour Elementary School. The final route map stated that signs should be placed along this route facing both directions (since there are students who may be walking towards either Seymour or Delaware School) and at least one sign per block.

Status: unknown

2. Dr. Weeks Elementary School

This was funded through the Transforming Communities Initiative (TCI). There were 191 "walkers" at Dr. Weeks Elementary School in 2019-2020.

Data collected:

- Violent crimes (school day and other violent crimes)
- Bicycle and pedestrian collisions (collision, injury, fatal)
- Bike ratings (Excellent, good, average, fair, poor)[2]
- Number of walkers per Census Block Group

A handout was produced for students and parents showing the route to take and what the signs look like (little blue sign with a school on it). It also has directions from the north and west to Dr. Weeks school and pointed walkers to cross James Street at Oak Street. A feature of the map is nearby points of interest such as a park, library, business/organization, church, and mosque.

Status: Implemented (signs placed)

[2] These appear to match the SMTC's Bicycle Suitability Ratings, but the data source is not specified.

3. Franklin Elementary School

This was funded through the Transforming Communities Initiative. There were 416 "walkers" at Franklin Elementary School in 2019-2020.

Data Collected:

- Violent crimes (school day and other violent crimes)
- Bicycle and pedestrian collisions (collision, injury, fatal)
- Bike ratings (Excellent, good, average, fair, poor)
- Number of walkers per Census Block Group

The data collected was presented to a subcommittee organized by the Onondaga County Health Department.

Status: Route identified, but not yet signed.

4. Lincoln Middle School

This initiative was completed by the Onondaga County Health Department and HealtheConnections. A basic map with two routes was developed: one on the west side of Teall Avenue and the other on the North side of James Street. Onondaga County Health/HealtheConnections stated that this is where signs should be placed and seen by students walking towards Lincoln, with at least one sign per block when possible. No other documentation exists for the development of this route.

Status: unknown

Three key "takeaways" from the existing City of Syracuse projects were identified through this review:

1. Currently, there is a lack of consistency among the various projects, both in inputs and in results. The City has expressed that a standard process for implementing SRTS would be beneficial.
2. Every project started with data gathering – but they did not all use the same data (see summary table below). Creating a process and a guidebook will help ensure that groups utilize data consistently across projects.
3. The process and the end product will need to be tailored for each school community, depending on the most effective methods for that individual school.

The City's desire for consistency in method, process, data, and the end result will need to be balanced against the unique needs of each school community. For

example, signage will need to be consistent to avoid confusion and streamline the installation process, but the most effective outreach methods will likely vary across schools.

Summary of data collected/utilized for Onondaga County Health and Trinity Health Safe Routes to School projects

School	# of student walkers by block group	Bike & ped crash locations	Snow removal routes	Walkability assessment	Violent crimes	Crime frequency by block	Bike suitability ratings
Delaware	x	x	x	x		x	
Weeks	x	x			x		x
Franklin	x	x			x		x

Note: A map also exists showing a potential route for Lincoln Middle School, but no documentation is available that indicates the data used in developing that route.

Onondaga County

Safe Routes to School initiatives are challenging outside of the City due to the larger catchment areas for individual schools, resulting in far fewer students within a reasonable walking distance of each school. Schools located within or near villages may have potential to have a greater share of students walking and bicycling and that school could provide a Safe Route to School route as an amenity. The non-city school districts in Onondaga County have universal busing and do not require any students to walk or bicycle to school.

One completed SRTS project was done in the Village of Fayetteville in 2019. The Village received $775,000 in Federal funds administered by the NYSDOT through the SMTC's Transportation Improvement Program (TIP).[3] The village completed a system of sidewalks that run through the municipality while adding handicap accessibility in the village's main center. This collaboration between state, village, and the school district helped to significantly improve the infrastructure and enhance safety measures between the village core and school.

The village's fire department, police department, and school district provided safety training sessions on how to walk and bike to school in a safe manner. With village funds, they hired crossing guards to supervise students walking to school

[3] Klaiber, Jason. "Fayetteville Approves Safe Routes to School Project." Eagle News Online, Eagle Newspapers, 20 May 2019, eaglenewsonline.com/new/government/2019/05/20/fayetteville-approves-safe-routes-to-school-project/.

across busy roadways. This project is an example of a community in Onondaga County that was able to encourage exercise, improve walkability, and implement a SRTS program. This SRTS project was different from the City of Syracuse initiatives because it was not route and signage based. There was not a specific route developed but rather improving the infrastructure conditions between the village and school. There were no signs placed for this project.

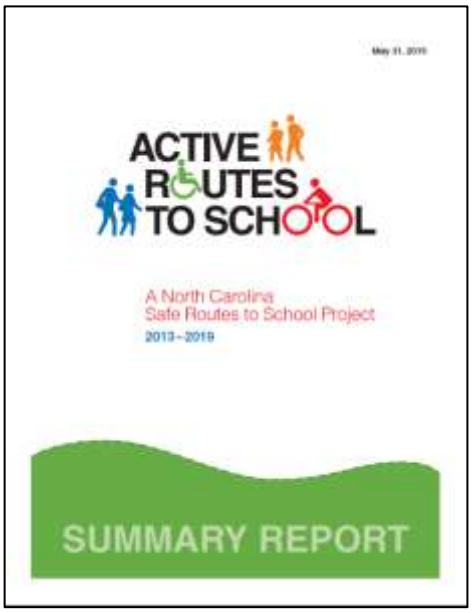
Single day events such as "Walk to School Day" have been undertaken in schools both in the City of Syracuse and Onondaga County. The single day events bring attention to the health benefits and get parents and students thinking more about active transportation. National Walk to School Day is always the first Wednesday in October. Events like this can lead to changes in policy, increase local leader commitment, increase visibility for traffic safety, and overall contribute to a community's quality of life.

IV. Examples of existing Safe Routes to School guides and resources

Safe routes to school guidebooks have been created around the country and focus on different aspects of routes and safety. They may target specific groups such as students, parents, or government employees. Guides are also constantly adapting and being adjusted. Our research did not uncover one specific guidebook that could be followed exactly for the creation of the City of Syracuse's process, but rather found a variety of resources from which pieces could be compiled to meet the City's goal with this study. The SMTC staff reviewed several resources but are highlighting a few best practices here.

State-level assessment and program implementation:

Active Routes to School, A North Carolina Safe Routes to School Project, 2013-2019, Summary Report. North Carolina Division of Public Health and North Carolina Department of Transportation. www.communityclinicalconnections.com/active-routes-to-school/.



This document summarizes North Carolina's statewide Active Routes to School initiative between 2013 and 2019. North Carolina ranks 5th in the nation for childhood obesity, and that was the impetus for implementing this statewide program. While walking and biking to school has decreased over the past few decades, the child obesity rate has increased. This program focused on the benefits of being active and

developing healthy habits that would continue to achieve additional success in school. As stated on page 2 of this summary report:

> *In 2013, the NC Department of Transportation, Bicycle and Pedestrian Division and the NC Division of Public Health, Community and Clinical Connections for Prevention and Health Branch partnered to create Active Routes to School (ARTS), the North Carolina SRTS project. The goal of the project was to increase the number of elementary and middle school students who safely walk and bike to school.*
>
> *ARTS was organized regionally to maximize its reach across the state. Funding for the project was distributed to 10 lead local county health departments/districts representing multi-county local health department regions. The lead health departments hired and housed the ARTS Regional Coordinators and coordinated efforts across the region.*

This statewide effort included three phases: assessment, implementation, and evaluation. Baseline data were collected in 2014 and annually thereafter. The initial assessments included a parent survey and a student travel tally (developed by the National Center for Safe Routes to School), and the Active Travel Readiness Scale (developed by the NC Highway Safety Research Center).

The implementation phase included a number of projects directed by the Regional Coordinators and designed to:

- Increase the number of one-time awareness-raising events.
- Increase the number of on-going programs that encourage walking and biking to, from, and at school.
- Increase the number of trainings on how to implement Safe Routes to School activities.
- Increase the number of policies that support walking and biking to, from, and at school, such as first dismissal for walkers and bikers.
- Identify safety features near schools (within two miles) such as sidewalks, crosswalks, and bike lanes that need improvement.

The evaluation phase included both quantitative and qualitative data. Three items were measured: changes in percentage of K-8 students walking and biking to school, changes in schools' readiness to support safe walking and biking, and changes in families' walking and biking activities.

The Summary Report also contains a compilation of "advice from the Active Routes to School Coordinators" – essentially, their "lessons learned" from this statewide project. These include:

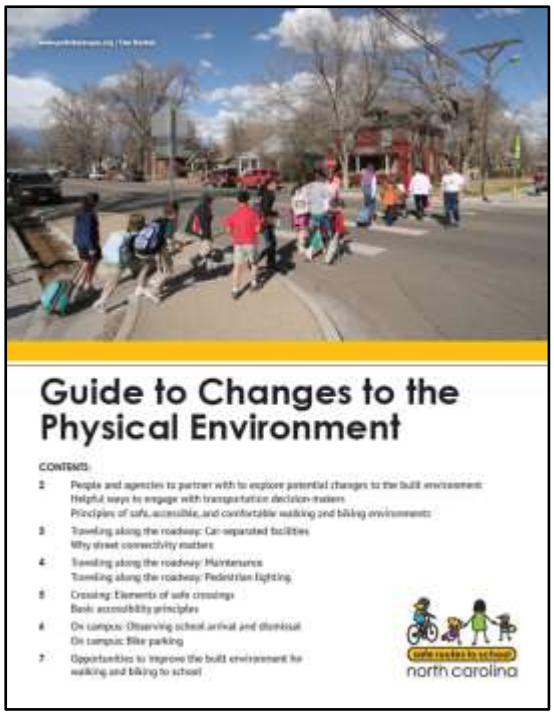
- Establish a positive relationship with every school and school district: including identifying a connection, establishing credibility, and showing commitment.
- Show that you respect and understand schools: be prepared, appreciate differences among schools, and identify strengths and build on what a school is already doing well.
- Offer a program/initiative that aligns with the goals of the school: Recognize that schools are under intense pressure to meet academic goals, and think about how the safe routes to school initiatives can align with those goals.
- Work toward sustainability of the program by leverage existing events and "cultivating champions."

North Carolina saw success with this program, and these metrics are described in the Summary Report. Participating in Walk to School Day events, attending a pedestrian/bicycle safety skills training, increasing the perception of walking/biking as a fun and healthful activity, and having a school-based "champion" were all associated with increases in walking to school.

Takeaways: The North Carolina summary report presents a successful model for a large-scale program implementation. This was implemented statewide by partnering with local health organizations, but aspects of this model could be replicated on a city-wide level by partnering with neighborhood-based organizations. The "lessons learned" from this large-scale project likely apply to smaller-scale projects as well, especially the importance of relationship-building and aligning safe routes to school projects with the existing goals and strengths of individual schools.

Public-facing guide to SRTS projects:

Guide to Changes to the Physical Environment, North Carolina Department of Transportation. www.ncdot.gov/initiatives-policies/safety/safe-routes-school/Pages/default.aspx.



This short document, from North Carolina Department of Transportation, is a good example of a guidebook for planners and community members to understand the basic infrastructure elements necessary for a SRTS, with visuals illustrating infrastructure improvement examples and why they are important for safety and walkability. Information, photos, graphics, and proposed design concepts help to convey how and why infrastructure at a ground level is important in safety and making routes comfortable for students.

This guide identifies elements of pedestrian and bicycle safety and comfort in three contexts:

- Along the travel way (car separated facilities, street connectivity, maintenance, lighting)
- Crossings (including accessibility)
- On campus (arrival and dismissal operations, bike parking)

Takeaways: For each of these elements, the Guide lists some principles to consider or observations to be made in planning for a SRTS project. It also includes a short list of agencies or local individuals to partner with. The Guide seems targeted to school-based community or parent groups, but at a high-level perspective, i.e. it describes general principles of SRTS but does not identify a specific procedure that any group in a particular community/municipality should follow to implement a SRTS project.

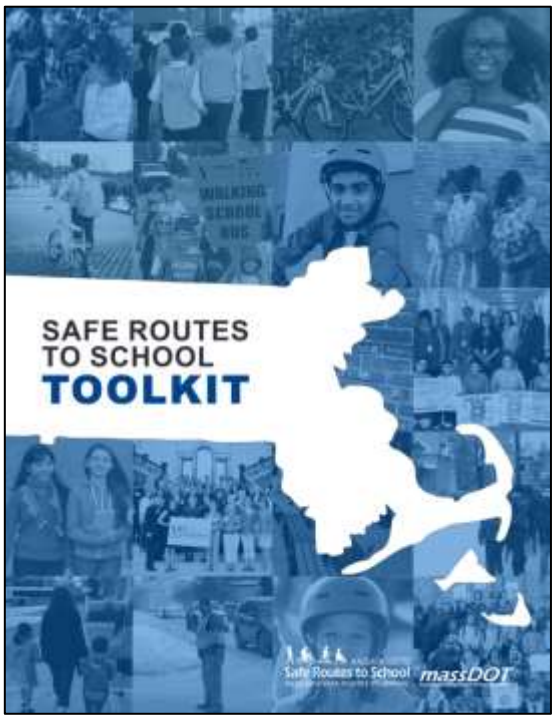
State-level toolkit with general guidance for individual school districts:

Safe Routes to School Toolkit, Massachusetts Department of Transportation. mass.gov/safe-routes-to-school.

This guide or "tool kit" is a good example of a community checklist with incentives to take action. By creating this checklist with a clear point system, they created a competition for Safe Routes to Schools initiative within the state. There is also a

SRTS ceremony every year to give awards to successful programs. Schools can measure the growth and sustainability of their local SRTS programs through four levels of achievements (basic, bronze, silver, and gold). Each task is assigned a point value and schools earn points by completing the various tasks throughout the year. At the end of the school year, they are given a cumulative score that determines their level.

This tool kit emphasizes the needs of the school, its student population, and the local neighborhood through "the six E's."



- Equity - Distributing SRTS resources and funds fairly.
- Education - Teaching and integrating pedestrian/bicycle safety into the curriculum or outreach at schools. Either district wide or individual schools.
- Encouragement - Build student excitement about active transportation and planning events that involve students and adults.
- Evaluation - Creating surveys and doing observations help to get input and see what is working and what needs improvement.
- Enforcement - Involve law enforcement agencies when possible and safety officers. Especially at or around schools during arrival and dismissal for safety.
- Engineering - Improve infrastructure for bicycle and pedestrian infrastructure to allow students to feel more comfortable.

This program also reached out to local businesses/partnerships to get them involved in the process of SRTS. By having clear color-coded sections with photos, maps, and text, this guide is easy to follow and understand at any level for a school district. Multiple schools would be able to take this guide and create their own routes/community engagement efforts with clear direction.

Takeaways: The Massachusetts DOT toolkit put focus on key topics by identifying "the six e's." They laid out the information and then came up with a system to have a competition to gain points through a clear, task-oriented checklist. By completing safe route to school objectives, schools were able to gain points and

earn levels of achievements. This makes creating a safe route to school a fun way to get people involved while also focusing on the topics the state wants.

Method for prioritizing individual schools for SRTS projects:

Safety-based prioritization of schools for Safe Routes to School infrastructure projects: A process for transportation professionals, National Center for Safe Routes to School. www.saferoutesinfo.org.

This document gives transportation professionals a process for prioritizing infrastructure needs and using Safe Routes to School funds effectively to improve conditions for children to walk to school. As stated on page 1 of this document:

> *This document explains a process to help transportation professionals identify schools within a city, school district or other local jurisdiction that merit additional review for specific pedestrian infrastructure improvements based on safety considerations. Use of this process will result in a prioritized list of schools without carrying out a comprehensive field review and extensive data collection for every school site. Once the highest priority schools are identified, a field review of these schools should be performed to identify specific safety issues and infrastructure improvements.*

This document breaks-down the planning process into two steps. The first step is to prioritize schools, using factors such as crash history, safety concerns, and current or potential pedestrian use. This step also defines different groups of importance to help prioritize the SRTS funds.

The second step is conducting field reviews of highest priority schools. This section uses a SRTS-focused roadway segment prompt list and was adapted from the FHWA Pedestrian Safety Road Audit. The list has a series of questions specifically targeted to help aid the decision-making process for SRTS routes. By collecting and using quantitative data, schools can be placed into groups of importance for SRTS infrastructure projects.

Takeaways: This document targets planning professionals with its emphasis on data collection. It focuses on using funds specifically for SRTS projects and

upgrading infrastructure for pedestrians only. Bicycling would be oriented toward roadway treatments. The prioritization method may be useful in a large district like the SCSD with numerous schools that could potentially benefit from a SRTS project; this could be used to sort schools into priority groups and determine where to focus initial efforts.

Summary of existing guidebook research:

SMTC staff did not identify a municipal-level guide to SRTS that could be replicated and applied to the City of Syracuse. Instead, we found resources that were mostly at a higher level, such as statewide programs or statewide guidebooks with fairly generic guidance about SRTS elements. These seem intended to prompt ideas within a local community, but do not offer a clear path to implementation for an individual school or community group that might be interested in improving walk-to-school options for students.

V. Existing transportation guidance from Syracuse City School District

The Syracuse City School District Transportation Department focuses on ensuring students have a safe and reliable means of getting to and from school and school related activities on a daily basis. There are over 15,000 Syracuse students that use buses daily in the district. Much of the information on the SCSD's website addresses busing but does not give any guidance on students walking or biking to schools.

The policy of the SCSD, set by the Board of Education, is that in order to qualify for busing, elementary and middle school students (K-8) must live more than one mile from the school they attend, and high school students (grades 9-12) must live more than 1.5 miles from the school they attend. Students that live closer than those distances are not eligible for busing and are, therefore, expected to walk to school or find other means of transportation. Children in elementary and middle school take school buses provided by the district through a contractor (i.e. they ride the "yellow buses") and Centro provides bus service for high school students.

According to the SCSD's website,[4] it is not possible for buses to stop at each student's door. The transportation department has established bus stops sometimes several blocks from a student's home. The selection of these stops is the District's responsibility, but the safety of the students to and from the stops is

[4] "Transportation: The Syracuse City School District: Syracuse, NY." *Transportation | The Syracuse City School District | Syracuse, NY,* www.syracusecityschools.com/districtpage.cfm?pageid=508.

the responsibility of the parent or guardian. The responsibility for students walking and bicycling to and from school is also the parent or guardian's responsibility.

Additional information can be found on their website or District handbook.

VI. Conclusion

Safe routes to school are a valuable community asset. Students should be encouraged to walk and bicycle to school for health benefits and parents should feel comfortable allowing their children to use these safe routes that have been studied and implemented. The development of the City of Syracuse's Safe Route to School Guide will create a consistent process to develop these routes for each school. With the selection of a "champion" or someone to take the initiative in forming a group and creating a route, the City's DPW will be able to implement these routes and develop a safe route to school for students.

There have been multiple initiatives completed within the City of Syracuse over the past several years by different groups including the Onondaga Health Department, Transforming Communities Initiative, and HealtheConnections. Each group went through their own process to come up with a Safe Route to School route. Out of the four school projects, one was implemented with signage.

Data plays a key role in the creation of a route and based on some of the initiatives done there are decisions made based on this information. Crime data is an example of this. Some groups included violent crimes in their research while others did not. By providing the same data sets with the guidebook, this will help to inform and give an accurate representation of items important to think about while creating a route.

Overall, there were multiple "lessons learned" from the Onondaga County Health/Trinity Health projects. One item the City of Syracuse DPW would like to have is a clear process that standardizes how these safe routes to schools are created so they are able to implement these projects quickly and efficiently. Although each school has its own challenges in creating a route, the city would like to have a consistent and coherent method across all the schools within the SCSD.

There was one project done in Onondaga County that used SRTS funds in the Village of Fayetteville. Using Transportation Improvement Funds, sidewalk infrastructure was repaired/built to provide a walking connection from the village core to the school. The project showed a collaboration between the state, village, and the school district to improve safety for students.

Looking through precedent guidebooks from across the country demonstrated the wide variety of Safe Routes to School initiatives that exist. Guides were developed to inform and propel decision making. Each guide had a target

audience that ranged from the state policy level to infrastructure improvements to school safety information. All guides provided guidance on a particular aspect of Safe Routes to School but there was not one guide that could be applied "as-is" to the City of Syracuse.

The SCSD has information on bussing procedures but little guidance for students walking to school. Students are expected to walk to school if they live within a mile (K-8) or a mile and a half (9-12) of their school.

With the development of the City of Syracuse's Safe Routes to School guide, the Syracuse City School District will have more direction to provide to students walking to school. Getting the school community involved in the process will provide valuable input in planning and implementing a route. Safe routes for students will put a focus on safety and implementing routes that work for individual schools while being consistent across the district.