

SAFE ROUTES TO SCHOOL PLAN, JUNE 2018

CAPITOL HILL MAGNET  
BENJAMIN E. MAYS IB WORLD SCHOOL

Saint Paul, MN

A

APPENDICES

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# Appendix A. For More Information

This appendix provides contact information for local, state, and national SRTS program resources as well as school partners.

## NATIONAL RESOURCES

Safe Routes to School Data Collection System

<http://www.saferoutesinfo.org/data-central>

Pedestrian and Bicycle Information Center

<http://www.pedbikeinfo.com/>

National Center for Safe Routes to School

<http://www.saferoutesinfo.org/>

Safe Routes to School Policy Guide

[http://www.saferoutespartnership.org/sites/default/files/pdf/Local\\_Policy\\_Guide\\_2011.pdf](http://www.saferoutespartnership.org/sites/default/files/pdf/Local_Policy_Guide_2011.pdf)

School District Policy Workbook Tool

<http://www.changelabsolutions.org/safe-routes/welcome>

Safe Routes to School National Partnership State Network Project

<http://www.saferoutespartnership.org/state/network>

Bike Train Planning Guide

[http://guide.saferoutesinfo.org/walking\\_school\\_bus/bicycle\\_trains.cfm](http://guide.saferoutesinfo.org/walking_school_bus/bicycle_trains.cfm)

10 Tips for SRTS Programs and Liability

<http://www.saferoutesinfo.org/sites/default/files/liabilitytipsheet.pdf>

Tactical Urbanism and Safe Routes to School

<http://www.saferoutespartnership.org/resources/factsheet/tactical-urbanism-and-safe-routes-school>

## STATE RESOURCES

Dave Cowan, Minnesota SRTS Coordinator

395 John Ireland Blvd

St. Paul, MN 55155

651-366-4180

[dave.cowan@state.mn.us](mailto:dave.cowan@state.mn.us)

Mao Yang, State Aid for Local Transportation

395 John Ireland Blvd

St. Paul, MN 55155

651-366-3827

[mao.yang@state.mn.us](mailto:mao.yang@state.mn.us)

MnDOT SRTS Educational Webinars:

<http://www.dot.state.mn.us/mnsaferoutes/training/planning/index.html>

MnSRTS Guide to Getting Started

[http://www.dot.state.mn.us/mnsaferoutes/about/getting\\_started.html](http://www.dot.state.mn.us/mnsaferoutes/about/getting_started.html)

MnDOT Safe Routes to School Resource Website

<http://www.mnsaferoutestoschool.org>

Minnesota Safe Routes to School Facebook page

<https://www.facebook.com/MinnesotaSafeRoutestoSchool>

Walk!Bike!Fun! Pedestrian and Bicycle Safety Curriculum

<http://www.bikemn.org/education/walk-bike-fun>

School Siting and School Site Design

[http://www.dot.state.mn.us/mnsaferoutes/planning/school\\_siting.html](http://www.dot.state.mn.us/mnsaferoutes/planning/school_siting.html)

## LOCAL RESOURCES

Fay Simer

Pedestrian Safety Advocate

Department of Public Works, City of Saint Paul

[Fay.Simer@ci.stpaul.mn.us](mailto:Fay.Simer@ci.stpaul.mn.us)

Carol Grady

SHIP Grant Coordinator, Student Health & Wellness

Saint Paul Public Schools

[carol.grady@spps.org](mailto:carol.grady@spps.org)

# Appendix B. SRTS Facts for School Communication

The following facts and statistics have been collected from national sources. They are intended to be submitted for use in individual school newsletters, emails, or other communication with parents and the broader school community.

Except where otherwise noted, the following are based on research summarized by the National Center for Safe Routes to School. More information, including primary sources, can be found at <http://guide.saferoutesinfo.org>.

## TRAFFIC: COSTS, CONGESTION, AND SAFETY

- In 1969, half of all US schoolchildren walked or biked to school; by 2009, that number had dropped to just 13 percent.
- In the United States, 31 percent of children in grades K–8 live within one mile of school; 38 percent of these children walk or bike to school. You can travel one mile in about 20 minutes by foot or six minutes by bicycle.
- In 2009, school travel by private family vehicle for students in grades K through 12 accounted for 10 to 14 percent of all automobile trips made during the morning peak travel and two to three percent of the total annual trips made by family vehicle in the United States.
- Among parents who drove their children to school, approximately 40 percent returned home immediately after dropping their children at school. If more children walked or bicycled to school, it would reduce the number of cars near the school at pick-up and drop-off times, making it safer for walkers and bicyclists through reduced traffic congestion and improved air quality.
- Over the past few decades, many school districts have moved away from smaller, centrally located schools and have instead built schools on the edge of communities where land costs are lower and acreage has been more available. As a result, the percentage of students in grades K through 8 who live less than one mile from school has declined from 41 percent in 1969 to 31 percent in 2009.
- Personal vehicles taking students to school accounted for 10 to 14 percent of all personal vehicle trips made during the morning peak commute times. Walking, bicycling, and carpooling to school reduces the numbers of cars dropping students off, reducing traffic safety conflicts with other students and creates a positive cycle—as the community sees more people walking and biking, more people feel comfortable walking and bicycling.
- Conservatively assuming that five percent of today’s school busing costs are for hazard busing, making it safe for those children to walk or bicycle instead could save approximately \$1 billion per year in busing costs.
- In 2009, American families drove 30 billion miles and made 6.5 billion vehicle trips to take their children to and from schools, representing 10-14 percent of traffic on the road during the morning commute.
- Reducing the miles parents drive to school by just one percent would reduce 300 million miles of vehicle travel and save an estimated \$50 million in fuel costs each year.
- Did you know that as more people bicycle and walk, biking and walking crash rates decrease? This is also known as the ‘safety in numbers’ principle. As more families walk and bike to school, streets and school zones become safer for everyone.



## HEALTH: PHYSICAL ACTIVITY AND OBESITY

- The U.S. Department of Health and Human Services recommends that children do one hour or more of physical activity each day. Walking just one mile each way to and from school would meet two-thirds of this goal.
- Studies have found that children who get regular physical activity benefit from healthy hearts, lungs, bones, and muscles; reduced risk of developing obesity and chronic diseases; and reduced feelings of depression and anxiety. Teachers also report that students who walk or bike to school arrive at school alert and “ready to learn.”
- Researchers have found that people who start to include walking and biking at part of everyday life (such as the school commute trip) are more successful at sticking with their increased physical activity in the long term than people who join a gym.
- One recent study showed that children who joined a “walking school bus” ended up getting more physical activity than their peers. In fact, 65 percent of obese students who participated in the walking program were no longer obese at the end of the school year.
- Childhood obesity has increased among children ages six to 11 from four percent in 1969 to 19.6 percent in 2007. Now 23 million children and teens—nearly one-third of all young people in the U.S.—are overweight or obese.
- The 2010 Shape of the Nation report from the National Association for Sport and Physical Education found that, nationwide, less than one-third of all children ages six to 17 participate in physical activity for at least 20 minutes that made the child sweat and breathe hard.
- Children aren’t exercising enough and 78 percent of children aren’t getting the 30 to 60 minutes a day of regular exercise plus 20 minutes of more vigorous exercise that doctors recommend.
- Children are increasingly overweight. Twenty percent of children and 33 percent of teens are overweight or at risk of becoming overweight. This is a 50 percent to 100 percent increase from 10 years ago.
- According to a Spanish study of 1,700 boys and girls aged between 13 and 18 years, cognitive performance of adolescent girls who walk to school is better than that of girls who travel by bus or car. Moreover, cognitive performance is also better in girls who take more than 15 minutes than in those who live closer and have a shorter walk to school.
- One hundred calories can power a cyclist for three miles, but it would only power a car 280 feet. If you have a bowl of oatmeal with banana and milk for breakfast, you could bike more than nine miles. How far is the trip to school from your house?
- A 2004 study in the American Journal of Preventive Medicine found that, for every hour people spend in their cars, they are six percent more likely to be obese.
- Because of the health benefits, the cost of walking is actually negative.
- Childhood obesity rates have more than tripled in the past 30 years, while the number of children walking and biking to school has declined. According to the 2009 National Household Travel Survey, 13 percent of students between the ages of five and 14 walked or biked to or from school, compared to 48 percent in 1969.

## ENVIRONMENT: AIR QUALITY, CLIMATE CHANGE AND RESOURCE USE

- Did you know? When you walk, bike, or carpool, you're reducing auto emissions near schools. Students and adults with asthma are particularly sensitive to poor air quality. Approximately 5 million students in the U.S. suffer from asthma, and nearly 13 million school days per year are lost due to asthma-related illnesses.
- Did you know that modern cars don't need to idle? In fact, idling near schools exposes children and vehicle occupants to air pollution (including particulates and noxious emissions), wastes fuel and money, and increases unnecessary wear and tear on car engines. If you are waiting in your car for your child, please don't idle – you'll be doing your part to keep young lungs healthy!
- Families that walk two miles a day instead of driving will, in one year, prevent 730 pounds of carbon dioxide from entering the atmosphere.
- The United States moved into the 21st century with less than 30% of its original oil supply remaining.
- Americans drive more than 2 trillion vehicle miles per year.
- Short motor-vehicle trips contribute significant amounts of air pollution because they typically occur while an engine's pollution control system is cold and ineffective. Thus, shifting 1% of short automobile trips to walking or biking decreases emissions by 2 to 4%.
- There is more pollution inside a stationary car on a congested road than outside on the pavement.
- The transportation sector is the second largest source of CO<sub>2</sub> emissions in the U.S. Automobiles and light-duty trucks account for almost two-thirds of emissions from the transportation sector. Emissions have steadily grown since 1990.
- In a year, a typical North American car will add close to five tons of CO<sub>2</sub> into the atmosphere. Cars account for an estimated 15% to 25% of U.S. CO<sub>2</sub> emissions.
- Transportation is the largest single source of air pollution in the United States. In 2006 it created over half of the carbon monoxide, over a third of the nitrogen oxides, and almost a quarter of the hydrocarbons in our atmosphere.
- Disposal of used motor oil sends more oil into the water each year than even the largest tanker spill.
- Going by bus instead of car cuts nitrogen oxide pollution by 25%, carbon monoxide by 80% and hydrocarbons by 90% per passenger mile.
- Eight bicycles can be parked in the space required for just one car.



# Appendix C. Summary of Planning Process

The following is a brief summary of the planning process completed for the formation of this plan. The timeline below accompanies the narrative.

## Safe Routes to School Schedule

2017 - 2018



Planning for the SRTS plan began in the summer of 2017, after SPPS successfully applied and was awarded a planning assistance grant from MnDOT. In early fall, consultant staff met with school administration to go over first steps and provide background of SRTS to principals and assistant principals.

In October of 2017, data collection of student travel patterns and parent perceptions of walking and biking was completed by the local team and school staff. Administrators at Capitol Hill and Mays sent home a survey to parents in several different languages that asked them about how comfortable they were with their children walking and biking to school. In addition, the survey asked the distance from school families live, whether they feel like their school promotes biking and walking, and what changes would make them feel more confident about allowing their children to walk or bike. In addition to the surveys sent home to parents, students were asked by school staff about their travel patterns to and from school. This student tally collected data on travel to and from school during three weekdays. It was administered in October 2017 by Capitol Hill staff and in April 2018 by Mays staff. Both the student tally and parent survey were designed by the National Center for Safe Routes to School. Results from both were uploaded to the Data Collection System, allowing for comparison when future surveys and tallies are completed. The results of these evaluation efforts are in Appendix F and G.



### RAPID PLANNING SESSION

In November 2017, a broad group of stakeholders met for an intensive, half-day meeting called a Rapid Planning Session. This charrette-style event brought together school, district, state, city and county staff, plus students, health professionals, and community members to discuss the challenges and opportunities for walking and biking to Capitol Hill and Mays. Broadly, the Rapid Planning Session was made up of two parts. When the meeting started, attendees learned about SRTS and discussed upcoming projects and existing conditions that may affect biking and walking.

Later, the group brainstormed potential programs that could help make biking and walking to school

more appealing to students and families. After this, the team met with students to tell them about the SRTS plan and discuss their feelings towards walking and biking. Large format maps were used for students to show neighborhood destinations, walking and biking routes, and barriers. Following this, consultant staff split the group in half. One group observed dismissal at the Rondo Complex. The other group observed dismissal at Maxfield Elementary. Each group then performed a walk assessment of the area surrounding the schools. A walk assessment is the process of walking the streets of an area and evaluating the experiences a pedestrian would have. It allowed for the group to understand what walking to school is like.

Finally, after dismissal was observed and the walk assessment was completed, all stakeholders recon-

vened and discussed what was observed throughout the day; during the walk assessments, arrival and dismissal. Walking and bicycling routes, bus loading, and parent pick up were noted. Consensus was built around the issues and opportunities faced at each school. These were recorded on large format maps and later referenced by the consultant team when making recommendations. Later that winter, consultants met with a smaller group of the local team to observe arrival of students at the Rondo Complex.







# Appendix D. Existing Conditions

The following is a brief summary of the existing conditions in the area of the Rondo Complex.

## Surrounding Land Use

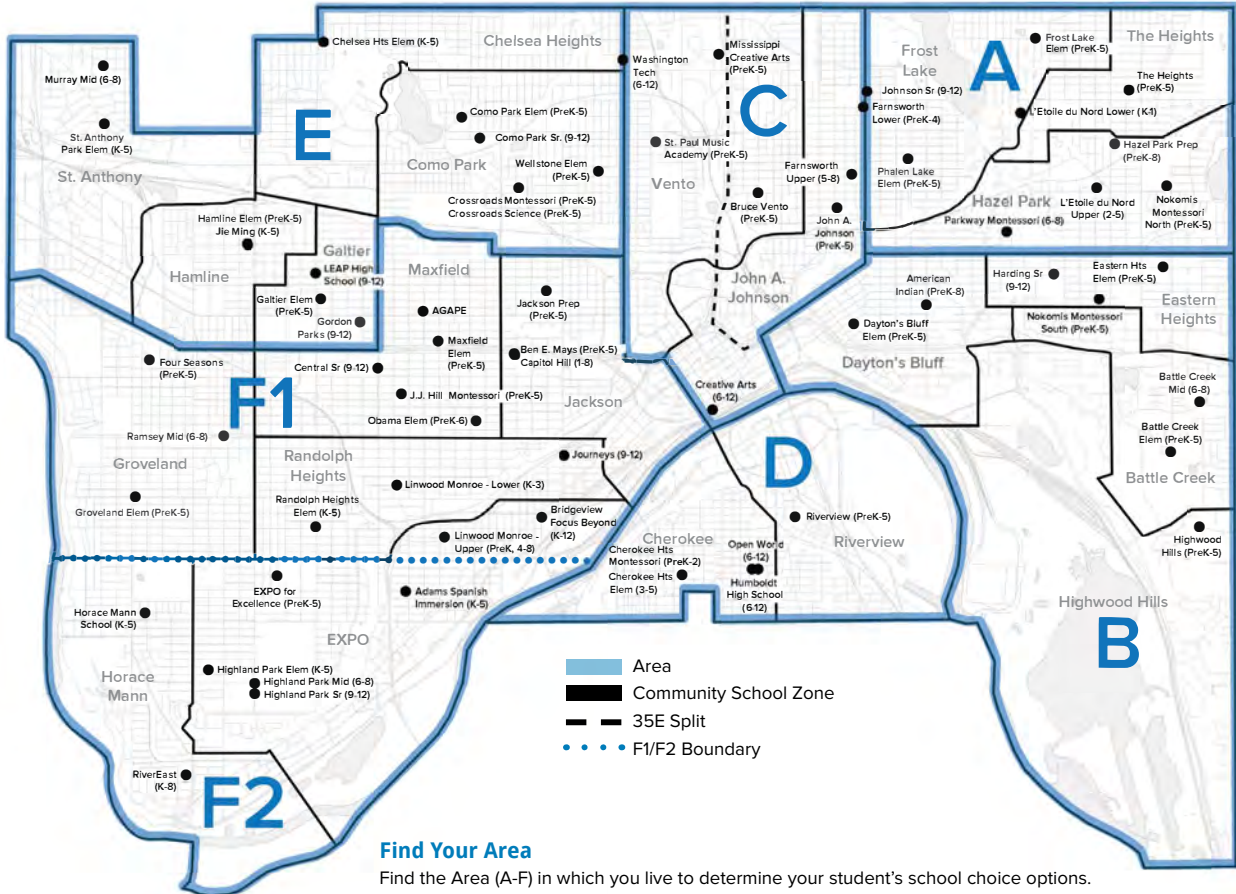
The building shared by Capitol Hill and Mays is mostly surrounded by low to medium density residential land use. Immediately to the west of the building are athletic fields shared by the two schools. To the east are a number of office buildings and medium density town homes. To the south is a community center, theater, and recreation center. To the north is Interstate 94, lower density residential homes, a high rise apartment building, Central Village Park, and University Ave, which is home to retail, restaurants, and auto repair.

## School Enrollment Boundary

The Rondo Complex is located in the upper-middle community school zone of area F1. Map produced by Saint Paul Public Schools.

## Saint Paul Public Schools Map 2017-18

School Choice Map and Community School Zone



The following travel pattern and parent survey summaries highlight results from an in class travel tally and survey sent home to parents in the fall of 2017. The full results of each are in Appendix F and G.

## Current Travel Patterns

### Capitol Hill

Most Capitol Hill students travel to and from school by family vehicle or school bus (27 percent and 71 percent, respectively). However, the travel tallies administered in the fall of 2017 indicated four percent of students walked. Zero students indicated they bike to school.

### Benjamin E. Mays

The vast majority of Mays students travel to school by bus (77 percent). Others travel in a family vehicle (21 percent), walk (four percent) or carpool (one percent). Zero students indicated they bike to school. The Mays travel tally was administered in April of 2018.

## Parent Survey Summary

### Capitol Hill

In response to the question, “How does your child typically travel to and from school?”, one percent of parents reported their child biking to school, five percent reported their child walking, 21 percent reported their child riding in a family vehicle, and 74 reported their child taking the bus. There were 193 surveys returned by parents. Almost 80 percent of respondents indicated they live more than two miles from school.

Parents and caregivers most frequently listed the “distance to school” as the main reason why they do not allow their child to walk or bike to and from school. “Amount of traffic”, “speed of traffic”, and “safety of intersections and crossings” were also very common.

Nineteen percent indicated Capitol Hill “encourages” or “strongly encourages” walking and biking to school, while seven percent reported the school “discouraging” or “strongly discouraging” it. Additionally, 74 percent of parents who responded to the survey indicated they believe walking and biking to school is “very healthy” or “healthy”.

### Benjamin E. Mays

In response to the question, “How does your child typically travel to and from school?”, one percent of parents reported their child walks to school, zero percent reported their child biking, 10 percent reported their child riding in a family vehicle, and nearly 90 percent reported their child taking the bus. There were 88 surveys returned by parents. Over 60 percent of respondents indicated they live more than two miles from school.

Parents and caregivers most frequently listed the “distance to school” as the main reason why they do not allow their child to walk or bike to and from school. “Weather or climate”, “violence or crime”, and “safety of intersections and crossings” were also very common.

Twelve percent indicated Mays “encourages” or “strongly encourages” walking and biking to school, while 14 percent reported the school “discouraging” or “strongly discouraging” it. Additionally, 65 percent of parents who responded to the survey indicated they believe walking and biking to school is “very healthy” or “healthy”.



## PEDESTRIAN AND BICYCLIST-INVOLVED CRASHES

The map below shows crashes involving people walking or biking within one mile of the Rondo Complex between 2011 and 2015. The school campus is marked by the purple icon. Crashes shown as a larger, dark red circle (K) resulted in a fatality. Crashes shown as a pink circle (A) resulted in an incapacitating injury. Crashes shown as a gray circle (those categorized as N, C, or B by MnDOT) are those that resulted in non-incapacitating injury, no injury, or property damage only. This map does not show near misses or crashes that go unreported.

A high number of crashes involving people walking and biking were reported on Dale St and University Ave. Both streets have high vehicle volumes and can be difficult to cross for people walking and biking. Both streets have many destinations along them but neither have bicycle facilities that provide dedicated space for people biking. Two fatalities occurred on University Ave.

### Legend

#### Bicycle and Pedestrian Involved Crashes within one mile of Rondo Complex

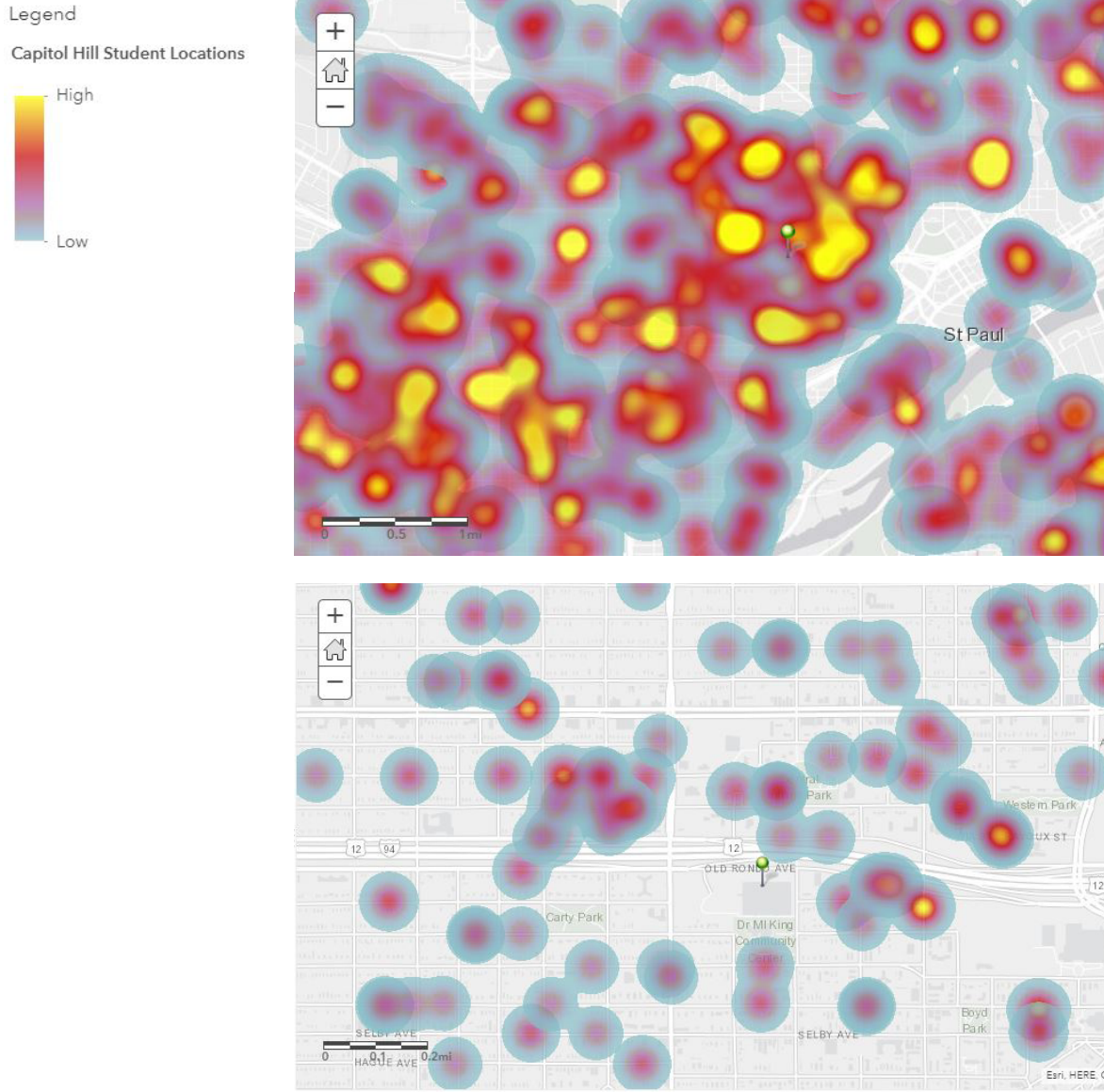
- C
- B
- A
- K
- N



# Appendix E. Student Residences

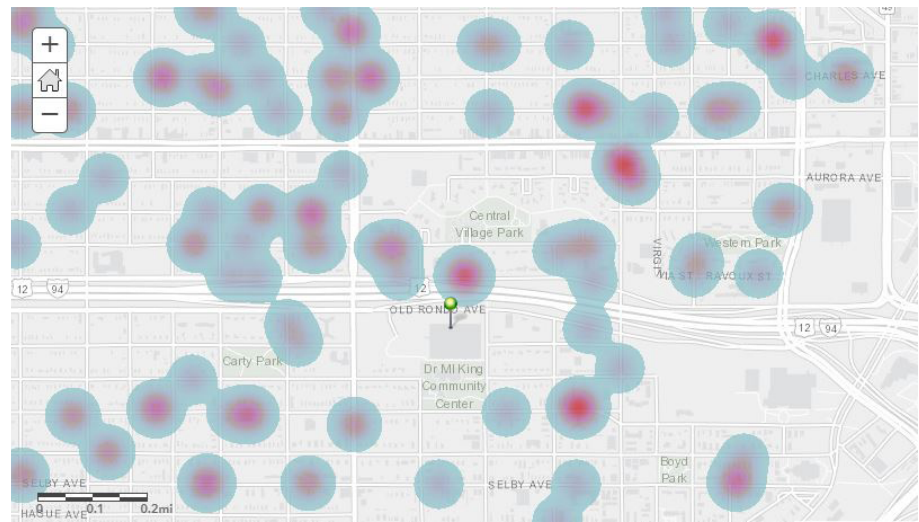
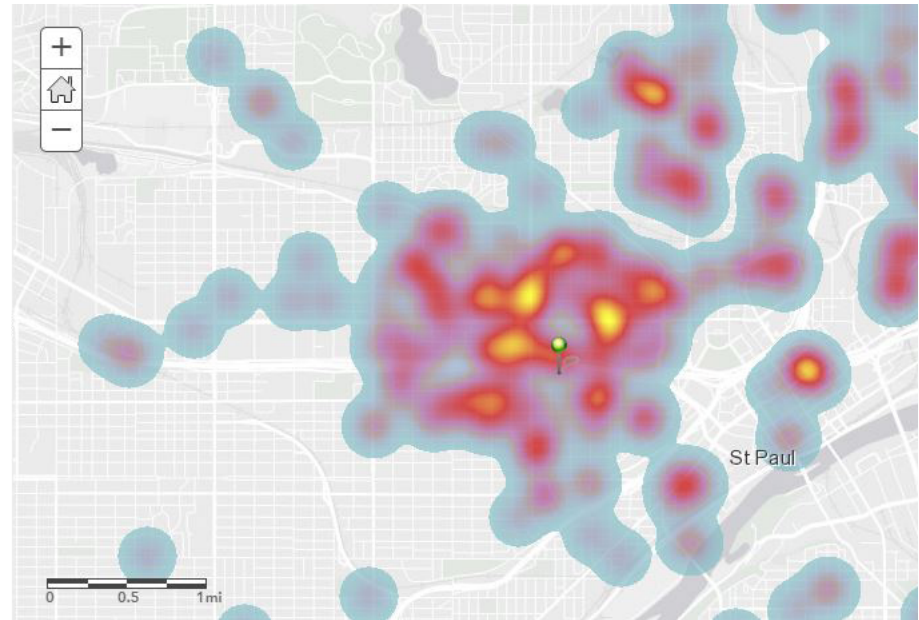
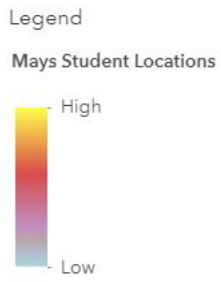
The maps on the following two pages show the locations of students attending Capitol Hill and Mays. The top map shows the neighborhoods surrounding school. The lower map shows the area immediately surrounding school. The warmer colors represent a higher concentration of students than the cooler colors. The green push pin icon shows the location of the school. Not all students are shown in the extents.

## CAPITOL HILL STUDENTS





## MAYS STUDENTS



# Appendix F. Parent Survey

The following shows a summary of a survey sent home to parents and caregivers of children attending Capitol Hill and Mays in the fall of 2017. It asks parents their feelings about walking and biking and is a direct export from the National Safe Routes to School Data Collection System, which processed the survey responses and generated this report. The first report shows Capitol Hill survey summary, followed by a summary from Mays.

## CAPITOL HILL PARENT SURVEY SUMMARY

### Parent Survey Report: One School in One Data Collection Period

**School Name:** Capitol Hill Magnet/Rondo

**Set ID:** 17032

**School Group:** Saint Paul Safe Routes to School Steering Committee

**Month and Year Collected:** October 2017

**School Enrollment:** 0

**Date Report Generated:** 01/18/2018

**% Range of Students Involved in SRTS:** Don't Know

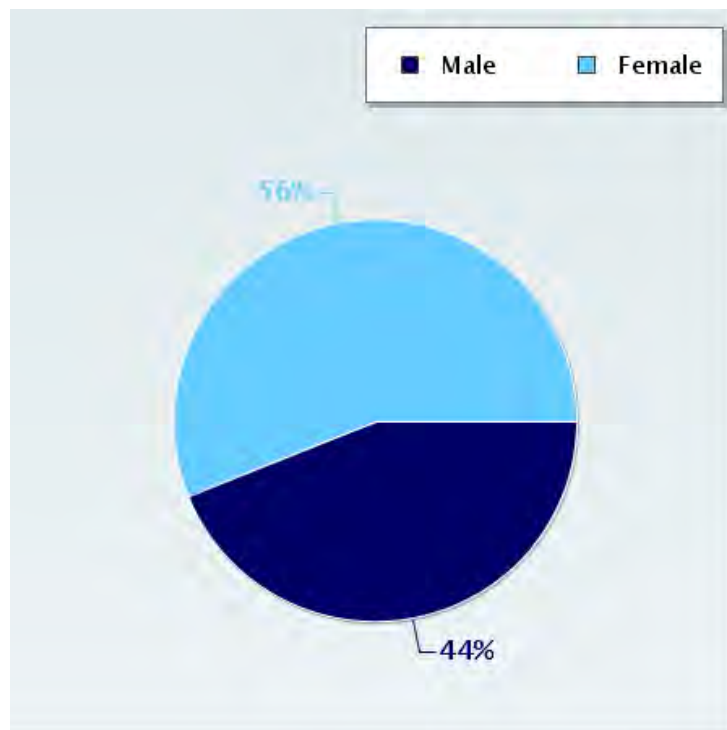
**Tags:**

**Number of Questionnaires Distributed:** 0

**Number of Questionnaires Analyzed for Report:** 193

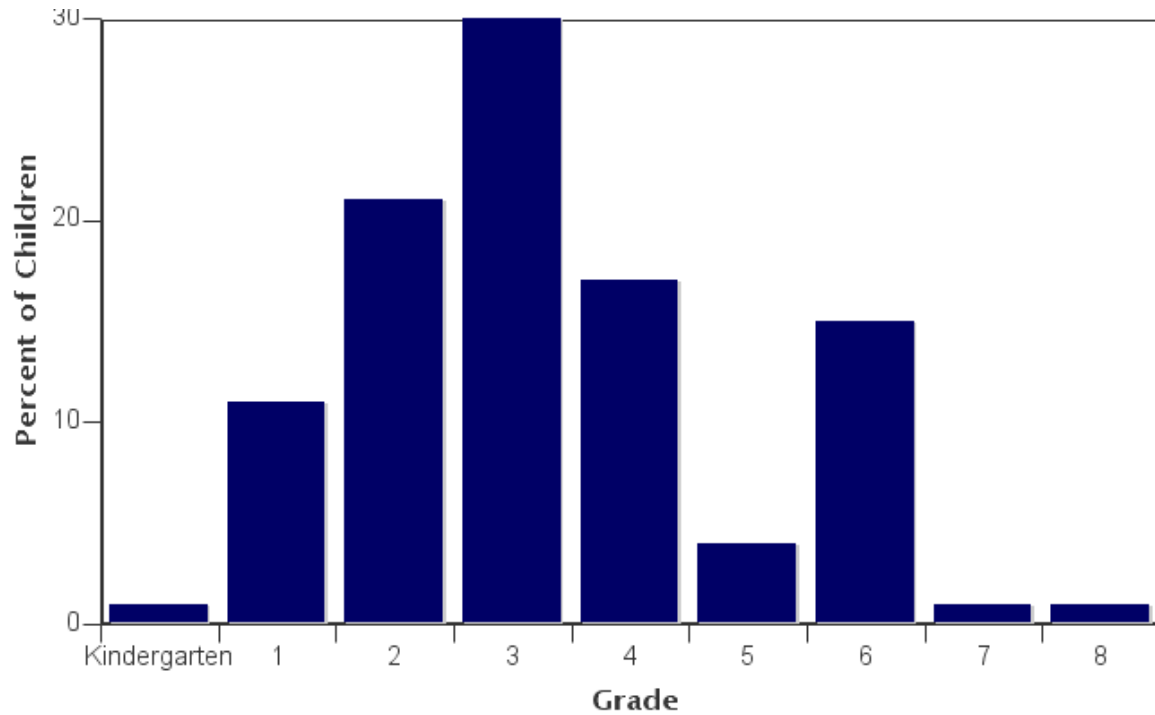
This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information





Grade levels of children represented in survey



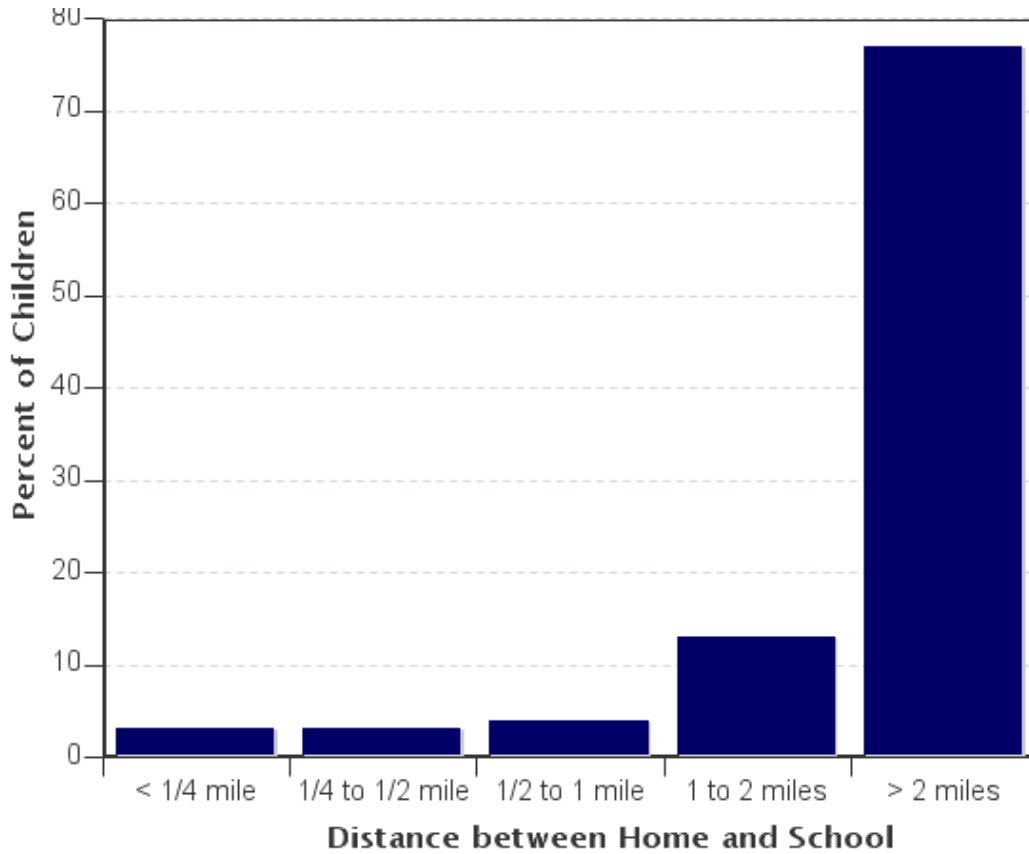
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
Kindergarten	1	1%
1	22	11%
2	41	21%
3	57	30%
4	32	17%
5	8	4%
6	28	15%
7	1	1%
8	2	1%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



Parent estimate of distance from child's home to school

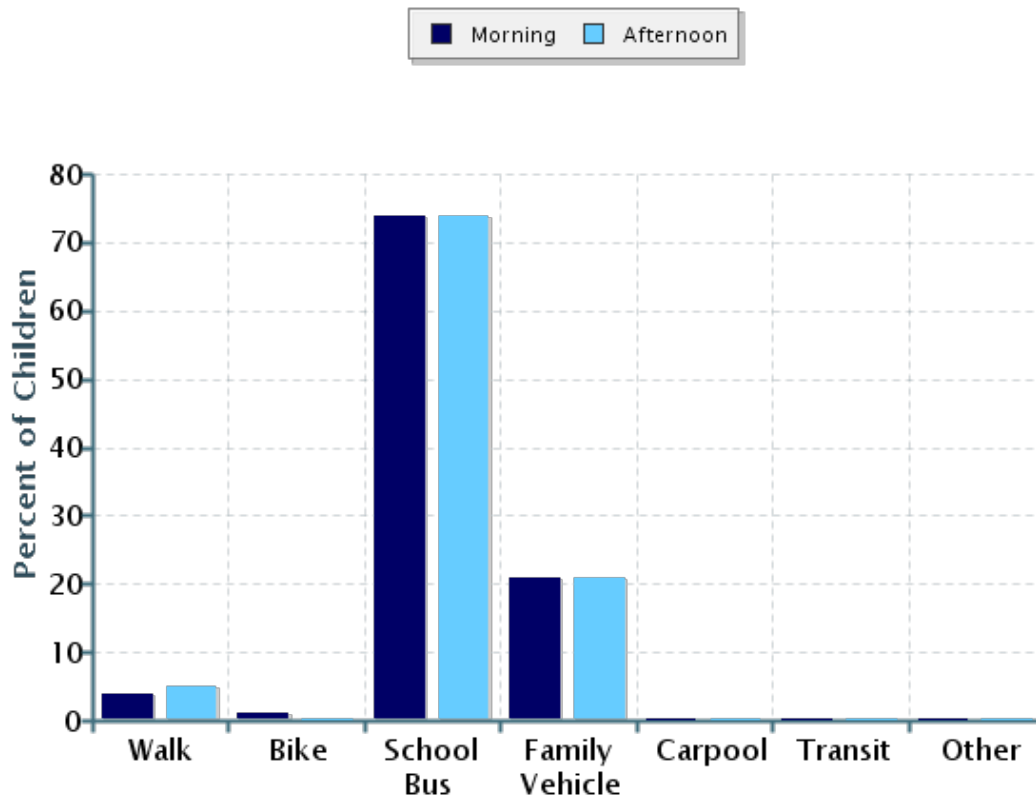
Distance between home and school	Number of children	Percent
Less than 1/4 mile	6	3%
1/4 mile up to 1/2 mile	5	3%
1/2 mile up to 1 mile	7	4%
1 mile up to 2 miles	24	13%
More than 2 miles	141	77%

Don't know or No response: 10

Percentages may not total 100% due to rounding.



### Typical mode of arrival at and departure from school



### Typical mode of arrival at and departure from school

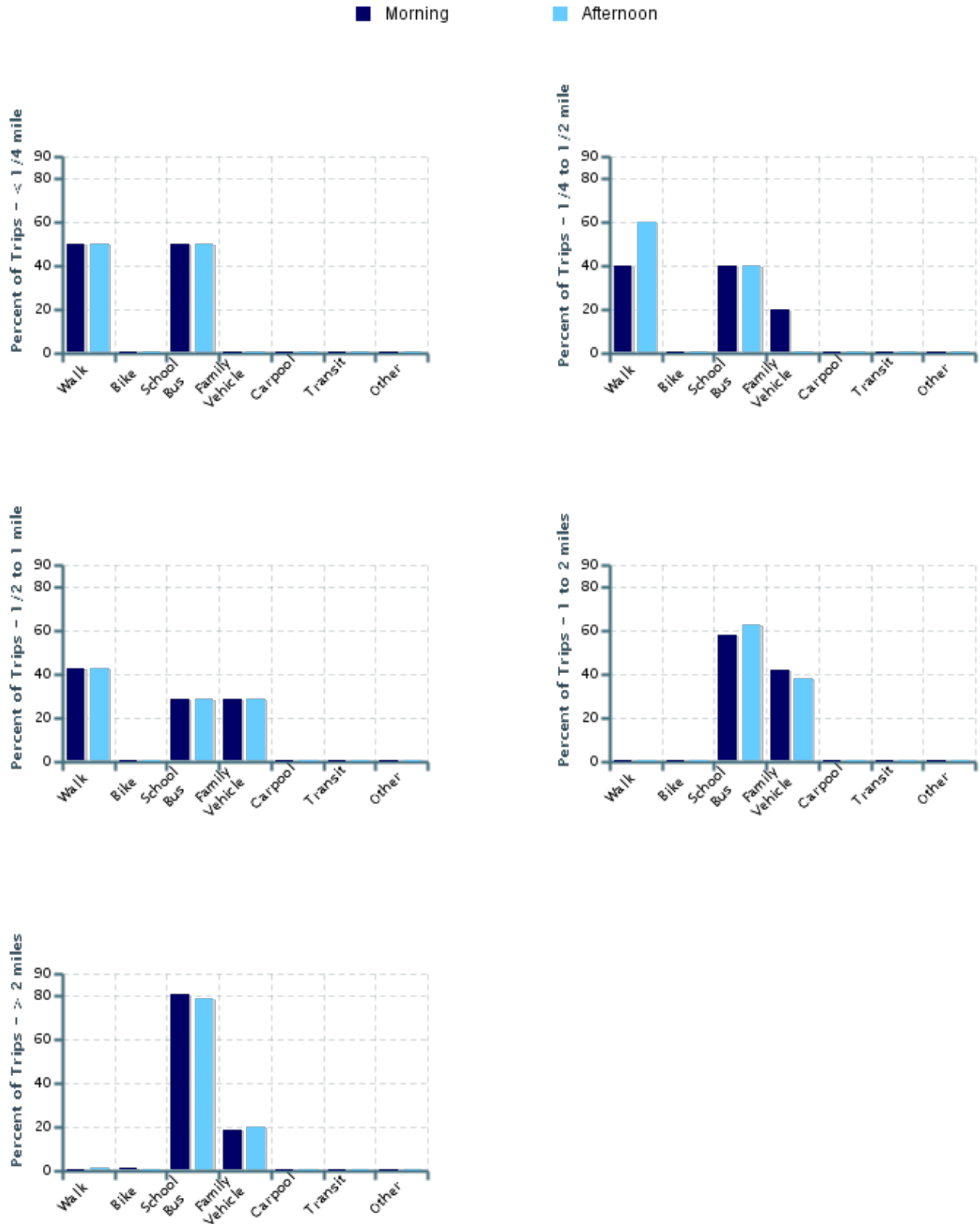
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	192	4%	0.5%	74%	21%	0%	0%	0%
Afternoon	190	5%	0%	74%	21%	0%	0%	0%

No Response Morning: 1

No Response Afternoon: 3

Percentages may not total 100% due to rounding.

## Typical mode of school arrival and departure by distance child lives from school



## Typical mode of school arrival and departure by distance child lives from school

### School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	6	50%	0%	50%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	5	40%	0%	40%	20%	0%	0%	0%
1/2 mile up to 1 mile	7	43%	0%	29%	29%	0%	0%	0%
1 mile up to 2 miles	24	0%	0%	58%	42%	0%	0%	0%
More than 2 miles	140	0%	1%	81%	19%	0%	0%	0%

Don't know or No response: 11

Percentages may not total 100% due to rounding.

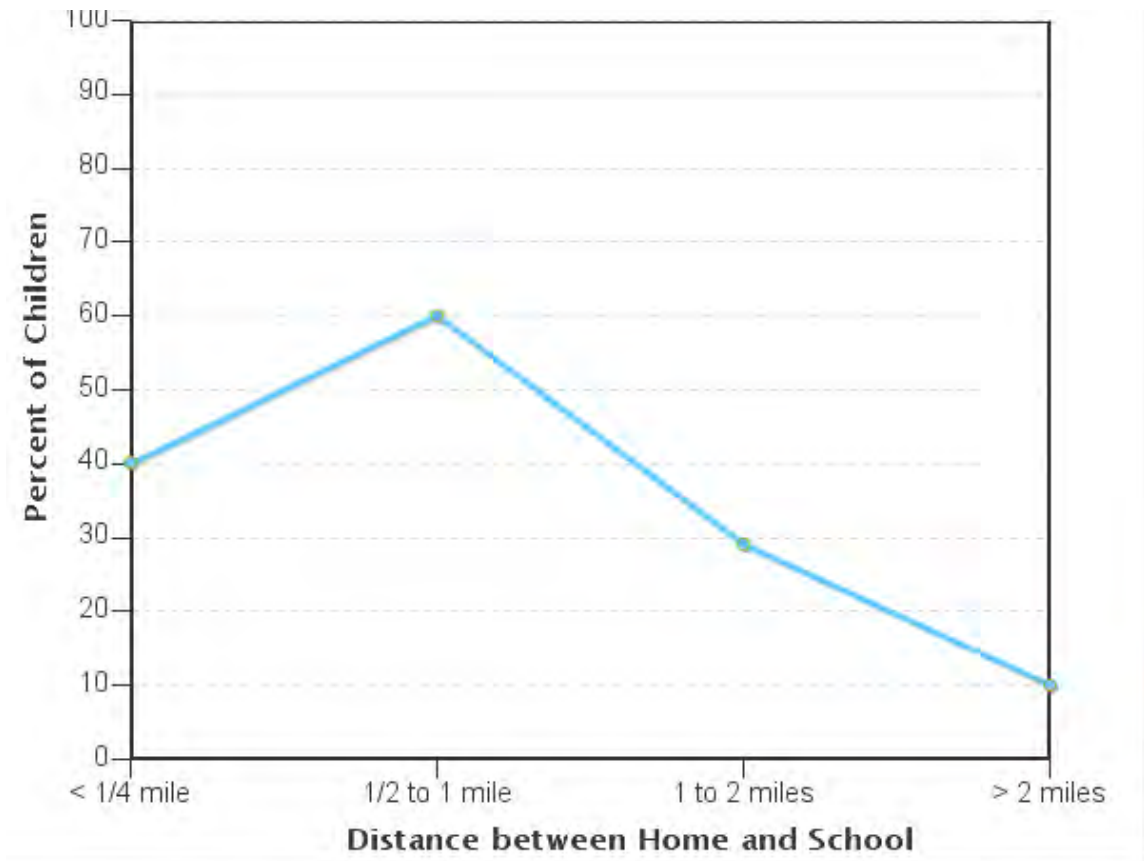
### School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	6	50%	0%	50%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	5	60%	0%	40%	0%	0%	0%	0%
1/2 mile up to 1 mile	7	43%	0%	29%	29%	0%	0%	0%
1 mile up to 2 miles	24	0%	0%	63%	38%	0%	0%	0%
More than 2 miles	138	1%	0%	79%	20%	0%	0%	0%

Don't know or No response: 13

Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

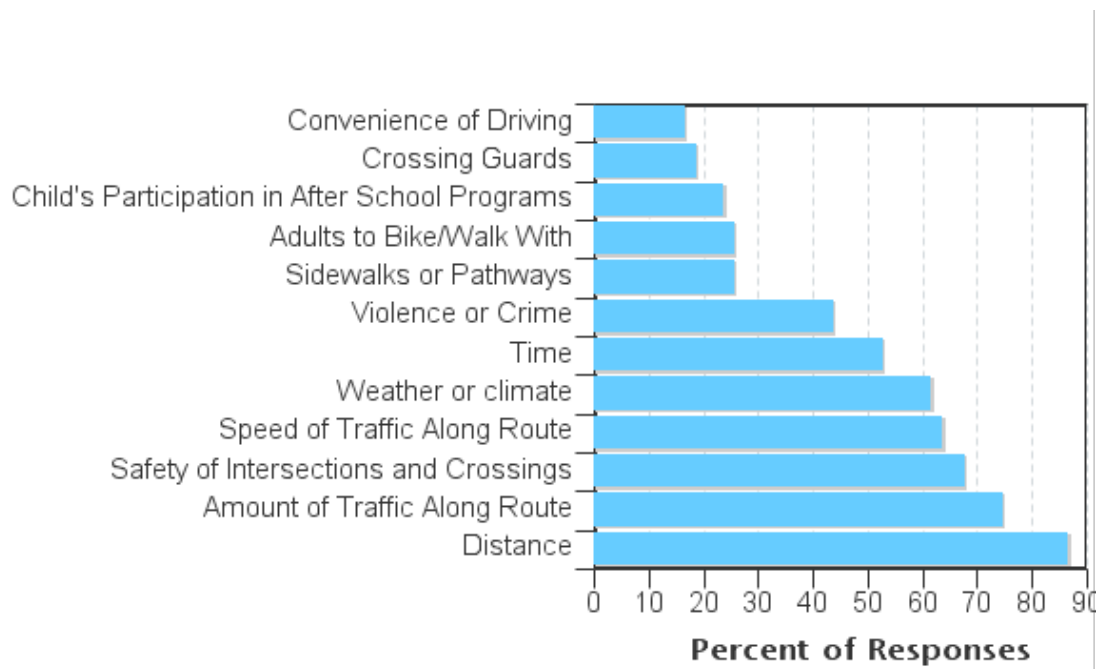


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

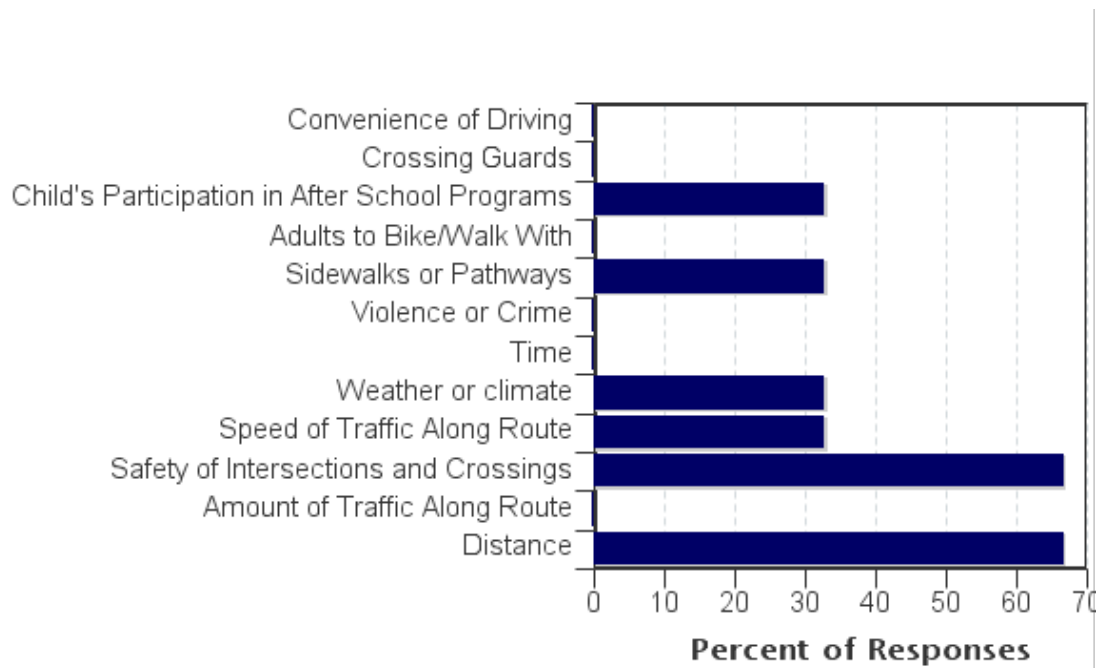
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	26	40%	0%	60%	29%	10%
No	150	60%	100%	40%	71%	90%

Don't know or No response: 17  
 Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	87%	67%
Amount of Traffic Along Route	75%	0%
Safety of Intersections and Crossings	68%	67%
Speed of Traffic Along Route	64%	33%
Weather or climate	62%	33%
Time	53%	0%
Violence or Crime	44%	0%
Sidewalks or Pathways	26%	33%
Adults to Bike/Walk With	26%	0%
Child's Participation in After School Programs	24%	33%
Crossing Guards	19%	0%
Convenience of Driving	17%	0%
<b>Number of Respondents per Category</b>	<b>133</b>	<b>3</b>

No response: 57

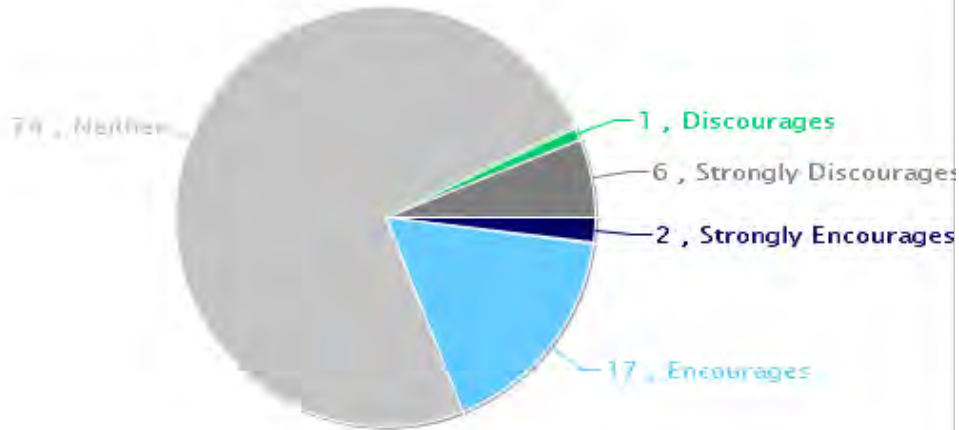
Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

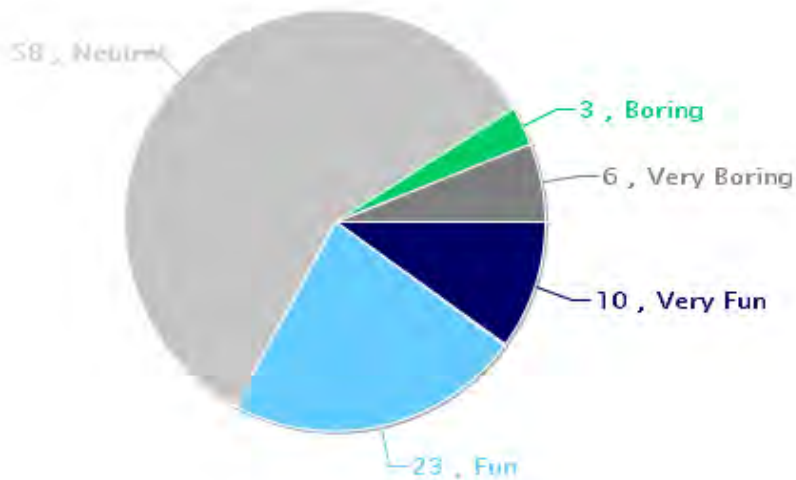
--Each column may sum to > 100% because respondent could select more than issue

--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child





## Comments Section

SurveyID	Comment
1574402	Drop offs also need improved safety thanks!
1574413	The route to school is far, involves unsafe intersections, and possibly dangerous.
1574417	If school start times change we will have to drive to school due to 6:30am bus time - not happy!!
1574463	I am fine with the idea of walking w/ my children to school. However, we simply do not live close enough to their school to make that happen.
1574551	Student safety could be improved by having a second adult on all buses to make sure kids stayed seated and respectful i.e. no fighting or jumping around or bullying. This is too much for the bus driver to control.
1574552	Our answers are greatly impacted by the distance we live away from the school.
1574556	Much of this is hard to apply since we currently live so far from school and don't know where our daughter will attend high school
1574557	Responses are heavily influenced by distance. If we lived closer, I would more strongly consider walking or biking as an option.
1574400	would not feel comfortable at any grade due to busy street on way to get there
1574405	Distance is the main issue.
1574443	The Rondo Building's proximity to 94, plus the distance we live from the school makes walking impractical and unsafe. Multiple unsafe areas along pedestrian route.
1574459	The route from home to his school is up-hill & rather far. I would like him to walk/bike but it is not really safe and it's far. The route is also very busy.
1574462	I absolutely support walking/biking to school. Distance and safety are my primary concerns.
1574491	We live too far for my son to safely bike or walk to Capitol Hill.
1574492	I feel there is a safe North/Safe route (Griggs Ave) but not a clearly safe East West route
1574506	We love biking to school! Wish we did it more often. bike to School Day was huge at EXPO and I think my kids was the only ones who biked to Capitol Hill on Bike to School Day.
1574514	Our child would have to walk across 94 or into another neighborhood to take the walking bridge. We would not feel safe having him walking to school.
1574519	We would walk if we lived closer.
1574534	Currently we attend a school far enough away to commit walking/biking. Prior to this school we attended expo which is 4 blocks from our house, but across Snelling Avenue. Walking around has been great, but biking too dangerous for our kids.
1574546	I would love for my kids to bike to school!!!

1574553	I want my children to go to school safely, no matter how far school from home. That why I want my children go to school with school bus.
1574554	We simply live too far from school (5.5 mi away) but if we were closer I would encourage walking/biking to school. Would also consider walking/biking w/them for safety.
1574555	Our kids would have to ride on very dangerous roads, like University, to get to school. No way. Or Dale, no way will we let them ride their bikes on Dale.
1584927	I want my children go to school safe. No matter how far school from home. I want my children to go to school with school bus.
1574388	It is not feasible or practical due to all items in question 10.
1574408	Although walking and biking is healthy for my children but the distance makes it unsafe for them to either walk or bike to school.
1574418	Walking and biking is impractical due to distance. Safety and item noted it section 10.
1574440	Other issue is a large hill between home and school
1574479	Capitol Hill is in a horrible traffic area along the freeway to make biking safe. I, as an adult, avoid that area when biking.
1574504	It is just under a 10 minute drive from our home to school but almost an hour long bus ride - too long!
1574540	Considering that this is a magnet school, and we live too far from it, this survey doesn't make much sense for our family, much as I believe in the value of walking/biking to school.
1574549	No crosswalks, poor visibility on St Anthony and Concordia needs major improvement
1574412	I really can't imagine letting my kids walk from this neighborhood without adult supervision, and I would need to work fewer hours to make that possible.
1574433	We live a short distance from the bus stop but quite a ways away from the school - I just worry about people more than traffic and walkways
1574502	From where we live to Capitol Hill is a really terrible (traffic, lack of good routes, really hilly) bike/walk route, besides being somewhat far. I work nearby + have difficulty determining a safe bike route for myself.
1574503	Snow. Cold! My little on is too little. It's too far. But my old one could walk home more often when it is not dangerously cold.
1574401	N/A
1574457	Survey is challenging to fill out as my child goes to a special magnet school several miles from home.
1574522	We are in another district very far for my daughter to walk or bike to school.
1574543	It is good idea to collect the survey. Walk or biking to school is important if possible
1574415	We have bike paths/sharrows to school, but drivers are not as accommodating as I'd like. Additionally, at second grade, he's too young to go by himself.
1574422	I strongly discourage my kid walk from school because the weather and crime rate.

1574455	My kids walk to MLK Rec Center for after school programming, they will not walk to school due to distance, we live too far away.
1574533	If it's for middle school and up then it's ok depending on their maturity.
1574561	My child is 8 years old. He will not be walking or biking to school anytime soon. I do not have time in the morning to make this happen and he would not be safe doing so alone.
1574451	My 3rd grader gets door-to-door busing due to mobility issues.
1574390	To many sex offenders and other questionable people in our community
1574532	Too many sex offenders and other questionable people in our community
1584903	I think children in grades 1 -8 are not required to pay for buses because of the traffic and the car is too fast to walk along the street if you do not help us get rid of ours If you do not help us, we will remove our children's beans for millions.
1574399	snow / no shoveled sidewalks and early start times doesn't make it possible to walk far @ a young age
1574416	I'm not going to allow my 7 year old ride her bike to + from school with traffic. She can barely ride safety in our neighborhood. If she falls or has a viewpoint who is going to help her?
1574513	we live in the North End neighborhood, and my child's school is 5 miles away. My kid would have to walk/ride through downtown St. Paul + through parts of the town I'd rather her not go through in order to get to her school. If we lived in walking distance of the school, I'd be fine with. Where we live now, it is far safer for her to take the bus.
1584893	I'd like to say, no matter what the kids are going to do or go to the house and go back to home. It does not get old enough to get rid of it
1574477	great idea - not practical for us
1574550	My kids cannot go on bicycles because its for and my younger kid does not know how do bike super well

## MAYS SURVEY SUMMARY

### Parent Survey Report: One School in One Data Collection Period

**School Name:** Benj E Mays Magnet/Rondo

**Set ID:** 17025

**School Group:** Saint Paul Safe Routes to School Steering Committee

**Month and Year Collected:** October 2017

**School Enrollment:** 0

**Date Report Generated:** 01/18/2018

**% Range of Students Involved in SRTS:** Don't Know

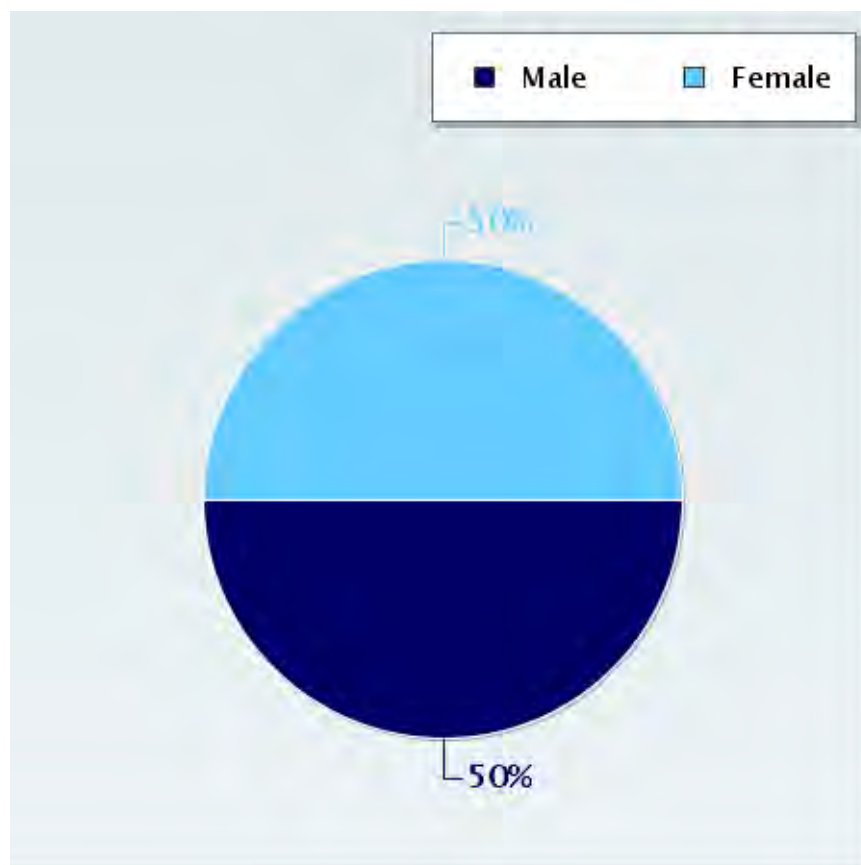
**Tags:**

**Number of Questionnaires Distributed:** 0

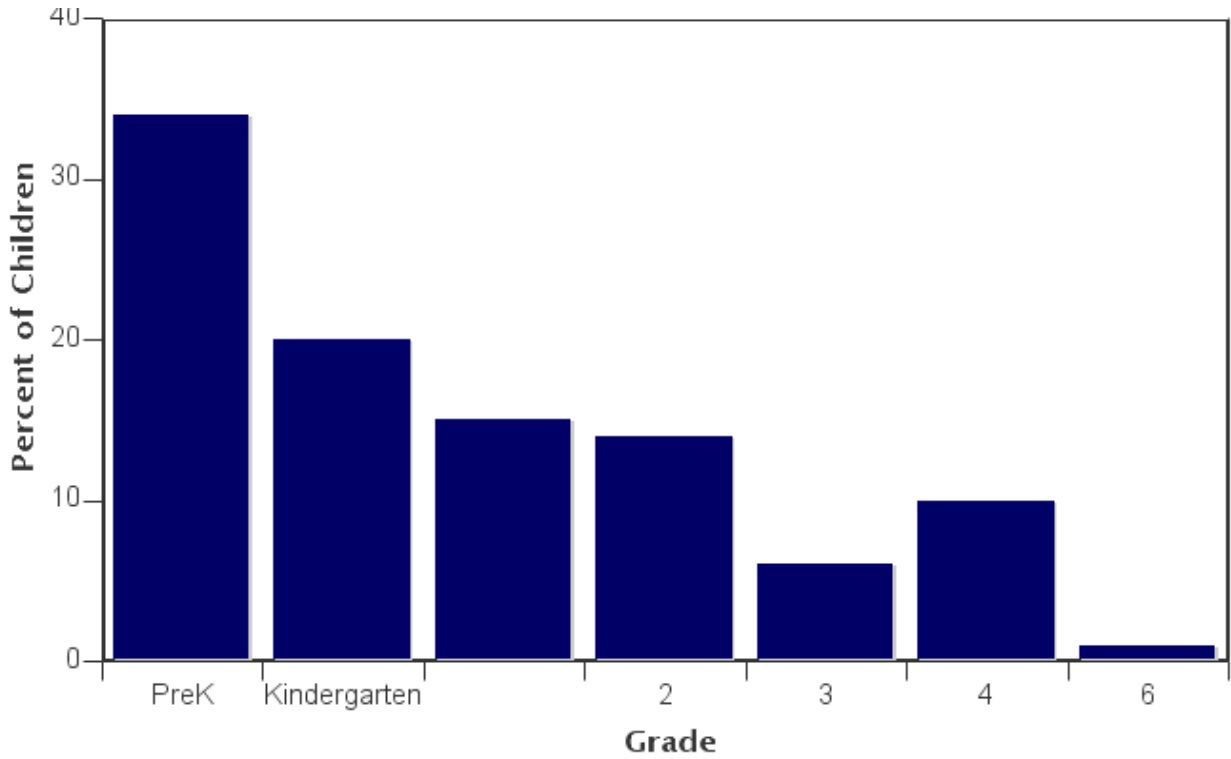
**Number of Questionnaires Analyzed for Report:** 88

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

#### Sex of children for parents that provided information



Grade levels of children represented in survey



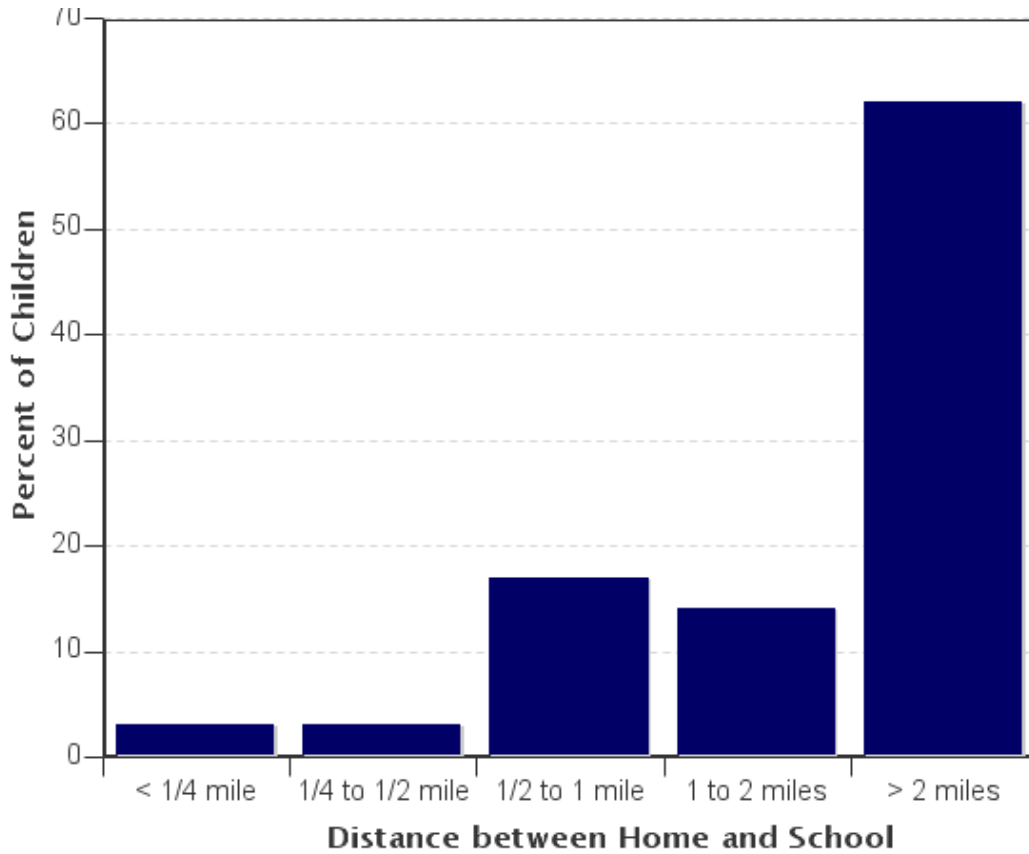
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
PreK	29	34%
Kindergarten	17	20%
1	13	15%
2	12	14%
3	5	6%
4	9	10%
6	1	1%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



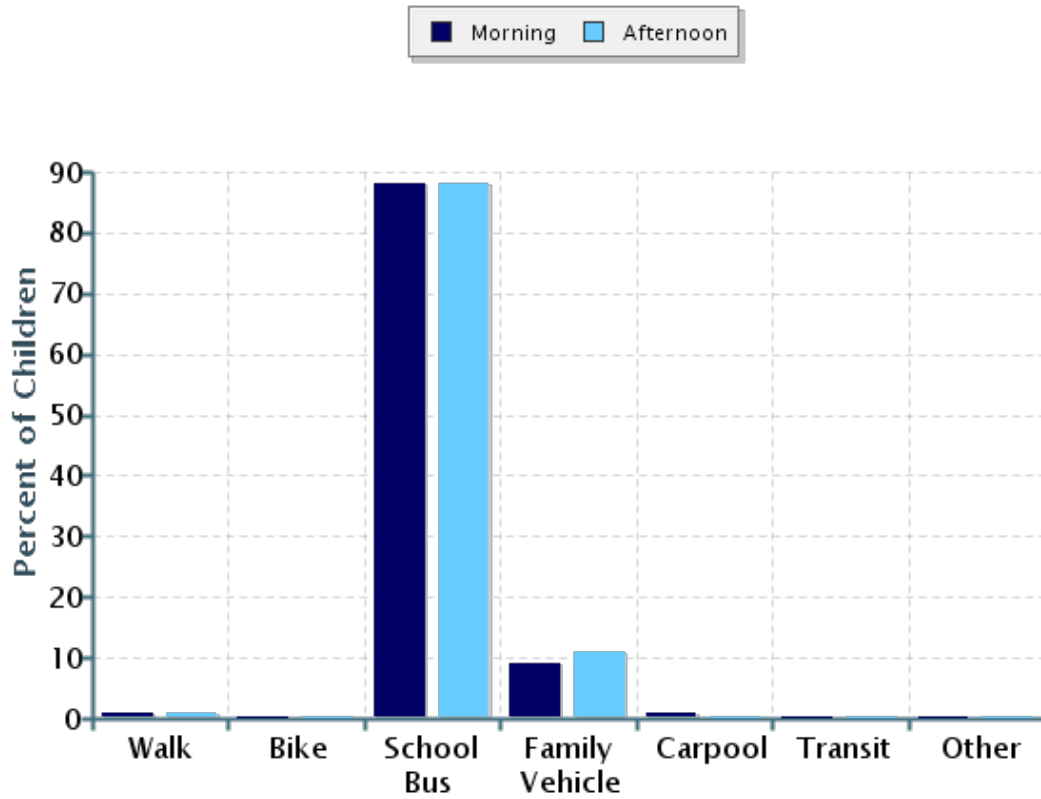
Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	2	3%
1/4 mile up to 1/2 mile	2	3%
1/2 mile up to 1 mile	12	17%
1 mile up to 2 miles	10	14%
More than 2 miles	43	62%

Don't know or No response: 19

Percentages may not total 100% due to rounding.

## Typical mode of arrival at and departure from school



## Typical mode of arrival at and departure from school

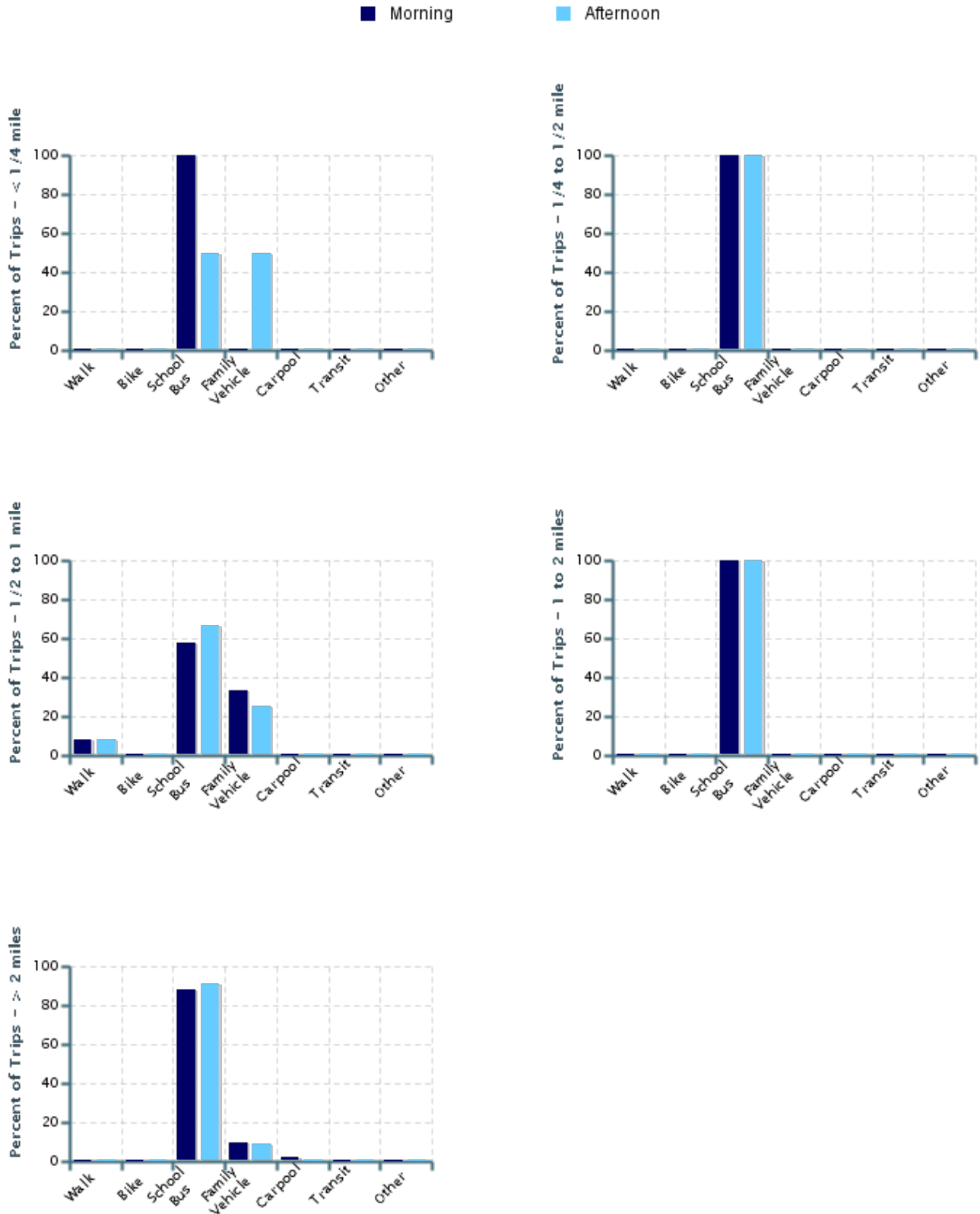
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	85	1%	0%	88%	9%	1%	0%	0%
Afternoon	85	1%	0%	88%	11%	0%	0%	0%

No Response Morning: 3

No Response Afternoon: 3

Percentages may not total 100% due to rounding.

## Typical mode of school arrival and departure by distance child lives from school





## Typical mode of school arrival and departure by distance child lives from school

### School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0%	0%	100%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	100%	0%	0%	0%	0%
1/2 mile up to 1 mile	12	8%	0%	58%	33%	0%	0%	0%
1 mile up to 2 miles	10	0%	0%	100%	0%	0%	0%	0%
More than 2 miles	42	0%	0%	88%	10%	2%	0%	0%

Don't know or No response: 20

Percentages may not total 100% due to rounding.

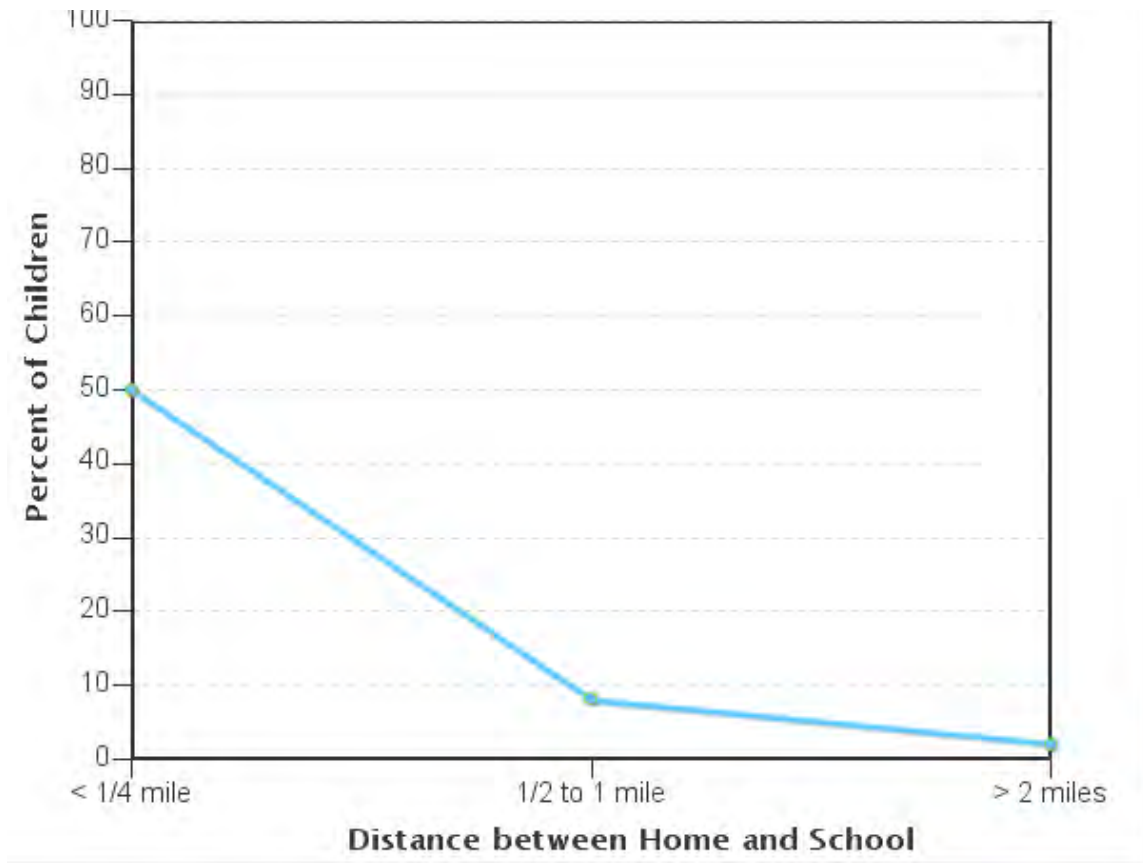
### School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0%	0%	50%	50%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	100%	0%	0%	0%	0%
1/2 mile up to 1 mile	12	8%	0%	67%	25%	0%	0%	0%
1 mile up to 2 miles	9	0%	0%	100%	0%	0%	0%	0%
More than 2 miles	43	0%	0%	91%	9%	0%	0%	0%

Don't know or No response: 20

Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

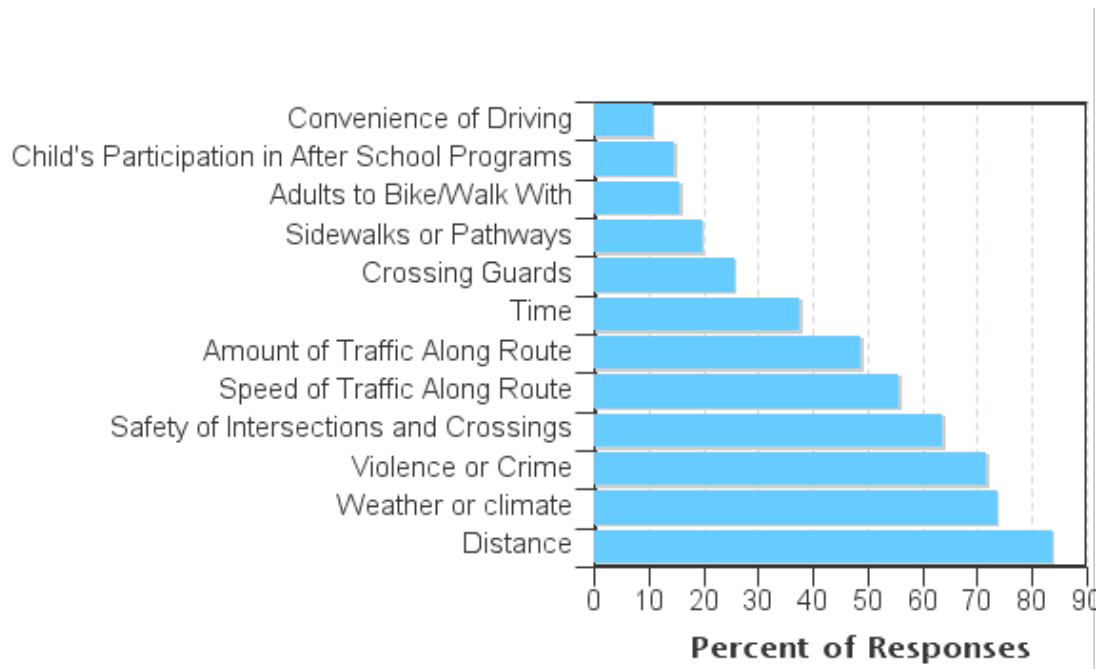


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

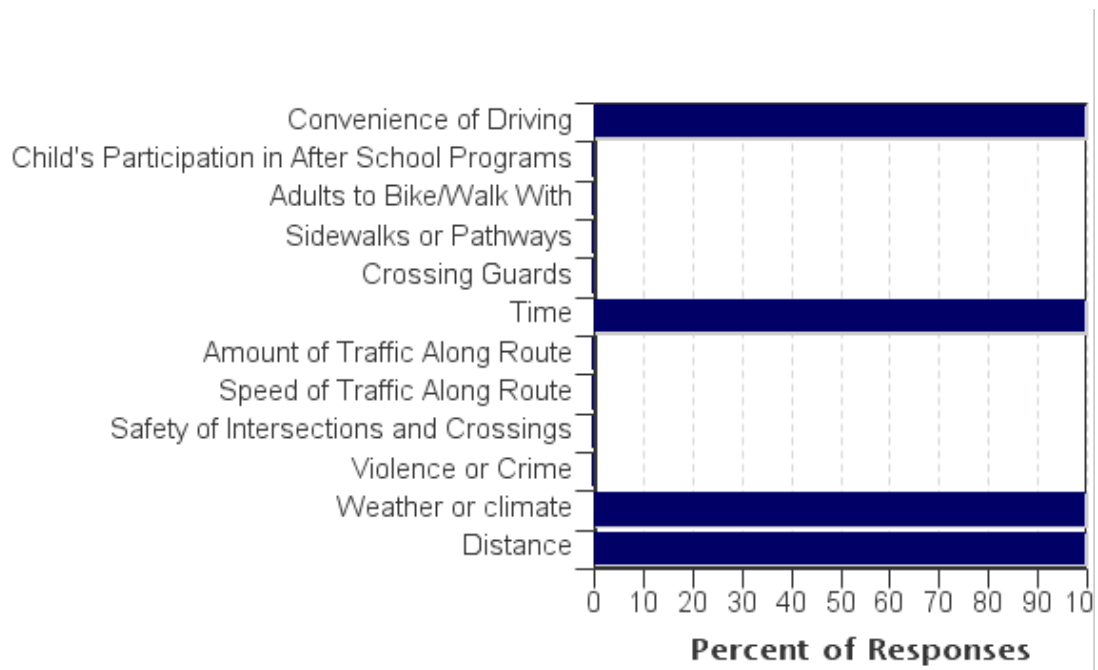
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	3	50%	0%	8%	0%	2%
No	64	50%	100%	92%	100%	98%

Don't know or No response: 21  
 Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	84%	100%
Weather or climate	74%	100%
Violence or Crime	72%	0%
Safety of Intersections and Crossings	64%	0%
Speed of Traffic Along Route	56%	0%
Amount of Traffic Along Route	49%	0%
Time	38%	100%
Crossing Guards	26%	0%
Sidewalks or Pathways	20%	0%
Adults to Bike/Walk With	16%	0%
Child's Participation in After School Programs	15%	0%
Convenience of Driving	11%	100%
<b>Number of Respondents per Category</b>	<b>61</b>	<b>1</b>

No response: 26

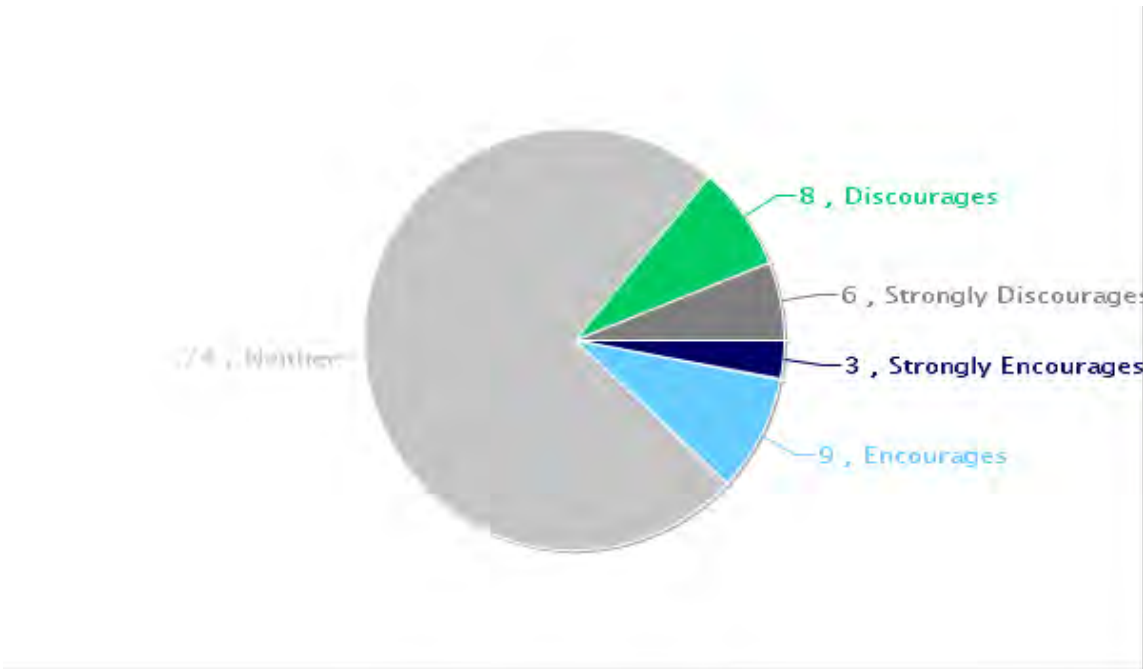
Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

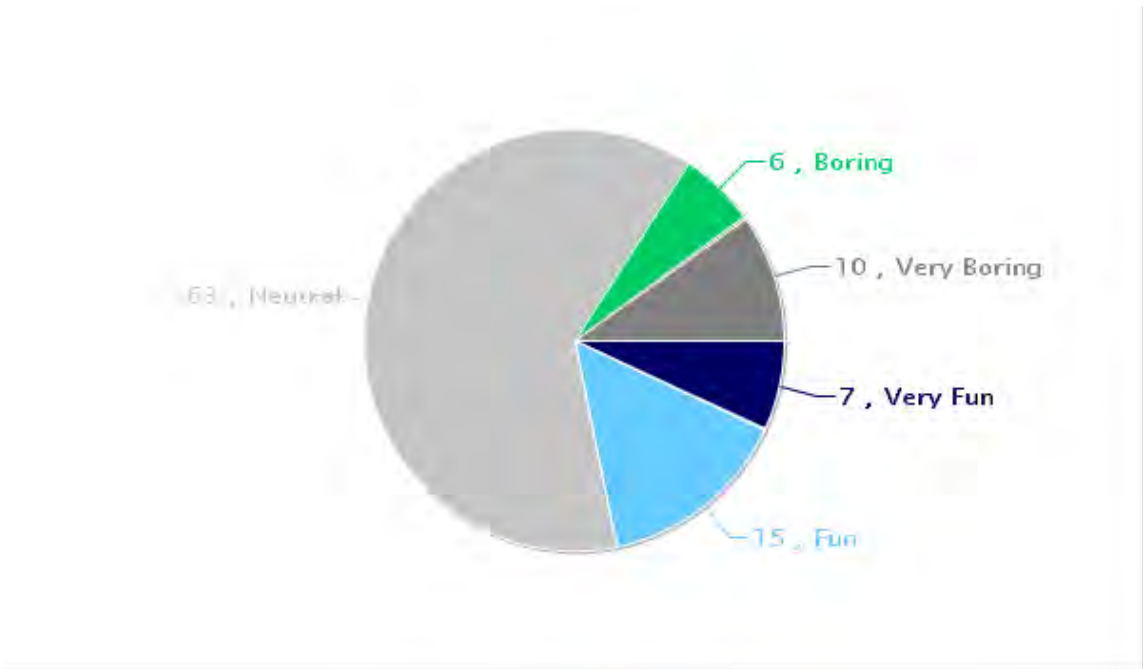
--Each column may sum to > 100% because respondent could select more than issue

--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

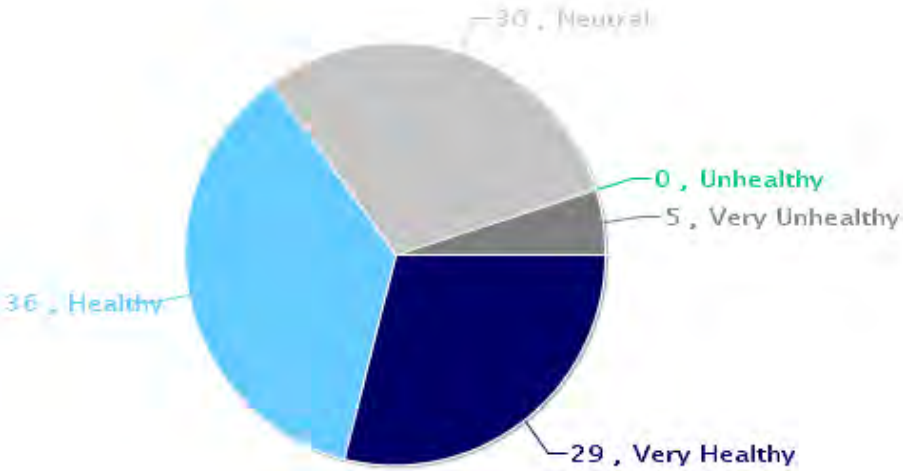
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



## Comments Section

SurveyID	Comment
1573431	Distance and safety of intersections or crossing would be my biggest issue. Busy intersections at times.
1573449	My child is in Pre-K, but I don't believe I would want her to walk or bike alone until she is able to know how to respond to emergencies and defend herself in danger.
1573221	We would love to walk or bike to school but we live too far away.
1573462	All children should be bussed to school there should be transportation to help working parents
1573256	If we lived closer and my child was older walking to school wouldn't be such a problem.
1573258	Anything can happen so I'm very against my baby walking or biking I rather know A to B.
1573484	N/A
1573455	My daughter will never walk or bike no where by herself she is always with mom unless in school and bus to after school programs.
1573492	N/A
1584974	I'm not sure if I'm walking or riding a bike because the school is far away and I also think that riding a bike to the school is not safe
1573428	We live opposite end of St. Paul from school. However, due to location of where school is and amount of car traffic, I would not ever feel comfortable letting a child walk or ride bike to Benjamin Mays. Even parking lot is dangerous.
1573450	I would only allow my son to walk to bike to and from school only when old enough.
1573475	Distance and safety along the way to school would be a problem. Heavy traffic and busy intersections all the time.
1573507	N/A
1573432	I will never ever allow my child to walk or bike to school due to safety reasons. I don't want to see my child knocked down by motorist or killed by gangs.
1584981	Please do not let your child walk or ride because of safety and law enforcement
1573228	She's only in PK so this is not for her, thank you.

# Appendix G. Student Hand Tally

The following pages show a summary of hand tallies of student transportation behavior at Capitol Hill and Mays. In the fall of 2017 and spring of 2018, respectively, students at Capitol Hill and Mays were asked how they traveled to and from school on three midweek school days. The reports shown are direct exports from the National Safe Routes to School Data Collection System, which generated the report.

## CAPITOL HILL STUDENT HAND TALLY SUMMARY

### Student Travel Tally Report: One School in One Data Collection Period

**School Name:** Capitol Hill Magnet/Rondo

**Set ID:** 24837

**School Group:** Saint Paul Safe Routes to School Steering Committee

**Month and Year Collected:** October 2017

**School Enrollment:** 0

**Date Report Generated:** 11/27/2017

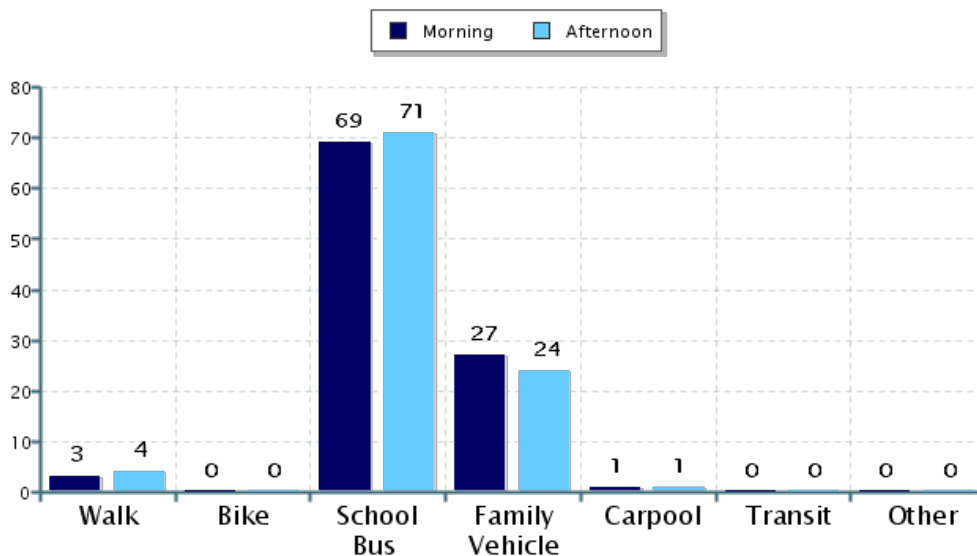
**% of Students reached by SRTS activities:**

**Tags:**

**Number of Classrooms  
Included in Report:** 43

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

### Morning and Afternoon Travel Mode Comparison



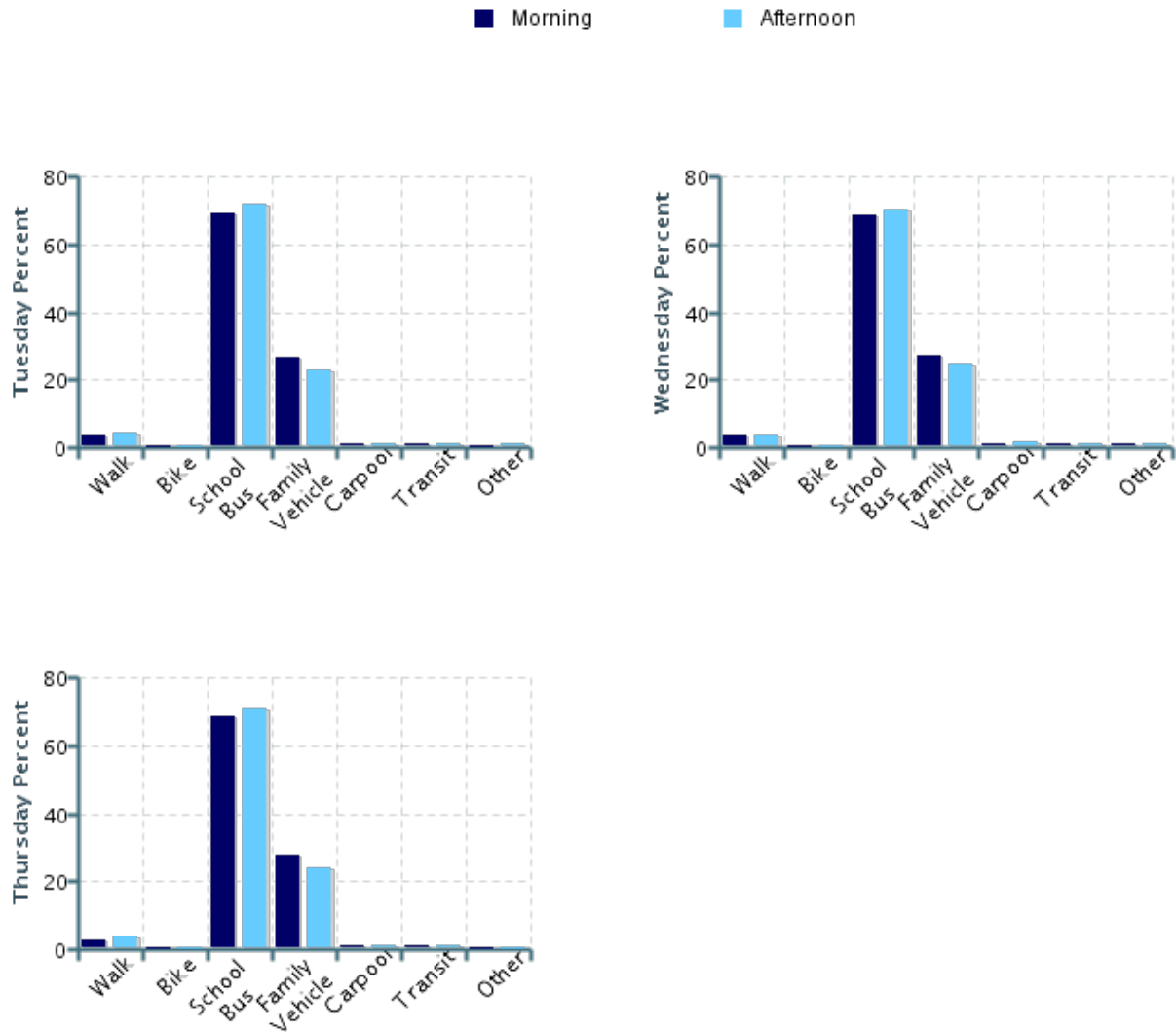
### Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	3426	3%	0%	69%	27%	0.7%	0.1%	0.0%
Afternoon	3609	4%	0%	71%	24%	1%	0.1%	0.2%

Percentages may not total 100% due to rounding.



## Morning and Afternoon Travel Mode Comparison by Day

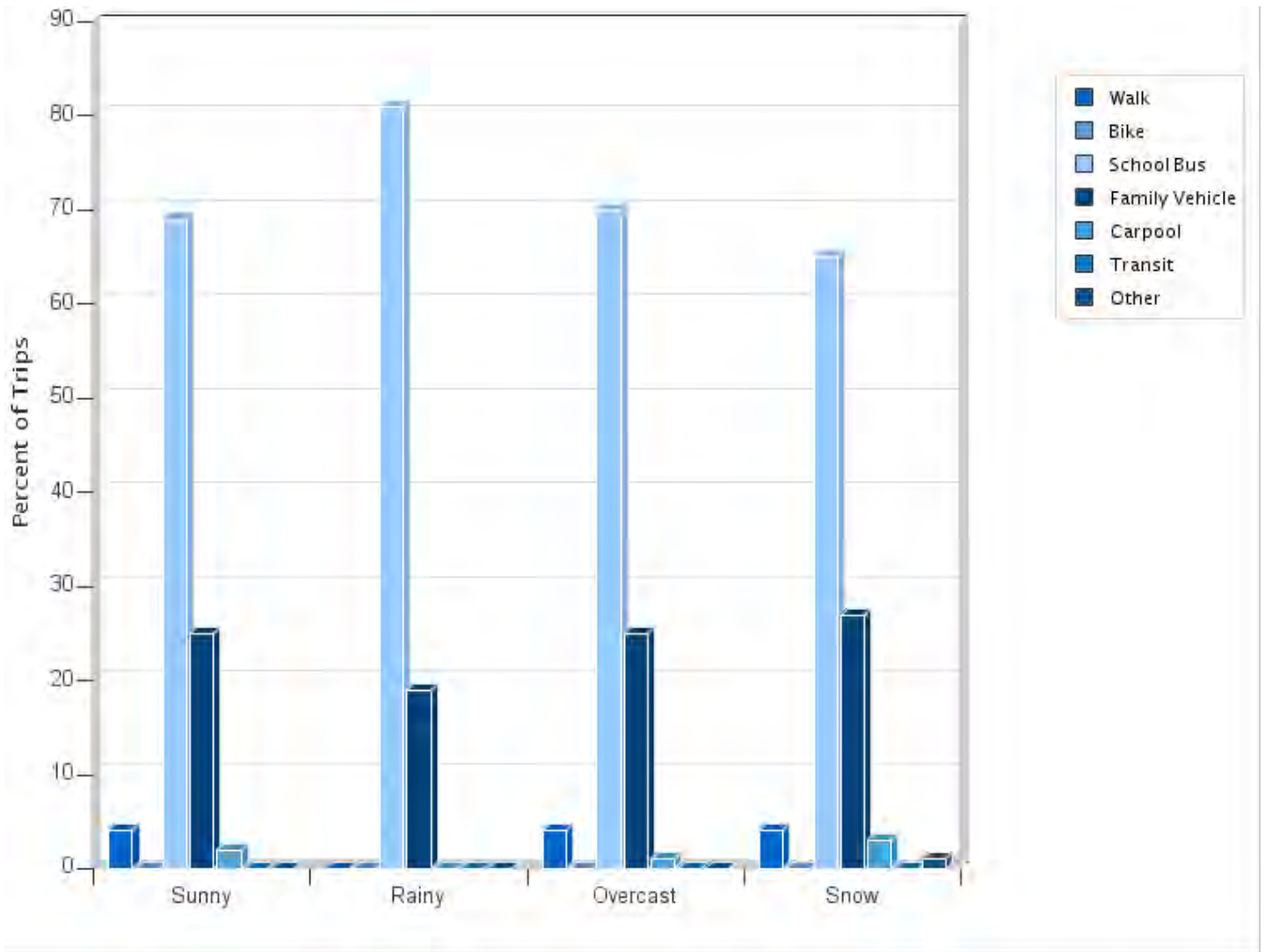


## Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	1169	4%	0%	69%	27%	0.8%	0.1%	0%
Tuesday PM	1319	4%	0%	72%	23%	1%	0.1%	0.2%
Wednesday AM	1148	4%	0%	68%	27%	0.8%	0.1%	0.1%
Wednesday PM	1162	4%	0%	70%	24%	1%	0.1%	0.3%
Thursday AM	1109	3%	0%	69%	28%	0.5%	0.1%	0%
Thursday PM	1128	4%	0%	71%	24%	0.9%	0.2%	0%

Percentages may not total 100% due to rounding.

## Travel Mode by Weather Conditions



## Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	1139	4%	0%	69%	25%	2%	0%	0.3%
Rainy	26	0%	0%	81%	19%	0%	0%	0%
Overcast	5531	4%	0%	70%	25%	0.6%	0.1%	0.0%
Snow	339	4%	0%	65%	27%	3%	0.3%	0.9%

Percentages may not total 100% due to rounding.



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# MAYS STUDENT HAND TALLY SUMMARY

## Student Travel Tally Report: One School in One Data Collection Period

**School Name:** Benj E Mays Magnet/Rondo

**Set ID:** 25776

**School Group:** Saint Paul Safe Routes to School Steering Committee

**Month and Year Collected:** April 2018

**School Enrollment:** 0

**Date Report Generated:** 05/18/2018

**% of Students reached by SRTS activities:** Don't Know

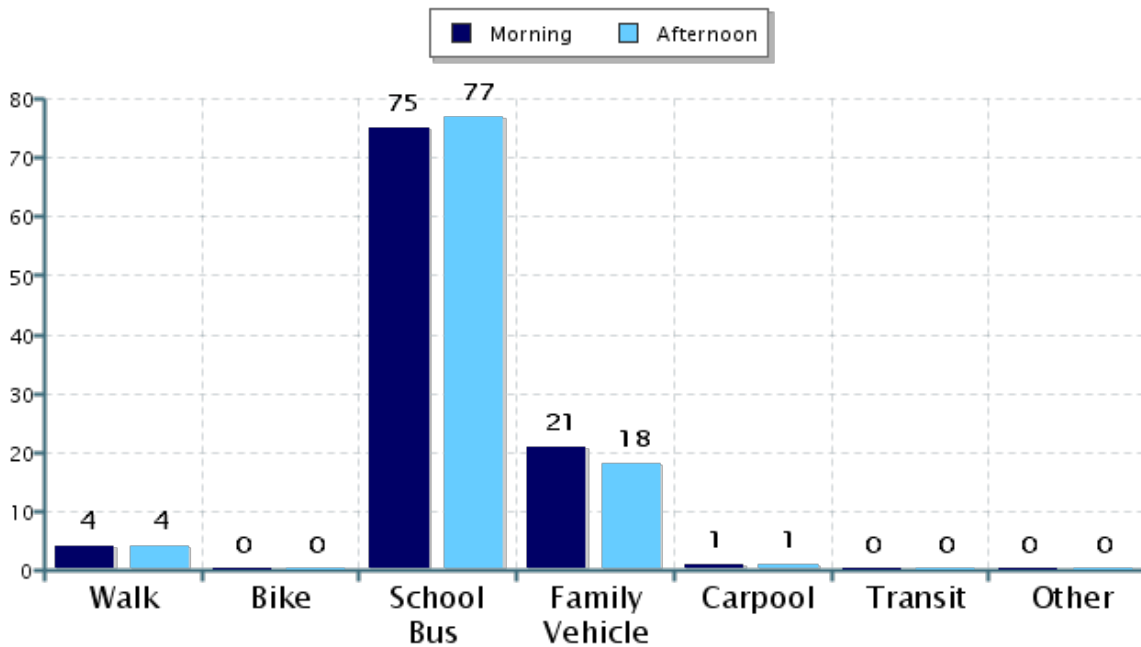
**Tags:**

**Number of Classrooms**

**Included in Report:** 19

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

### Morning and Afternoon Travel Mode Comparison

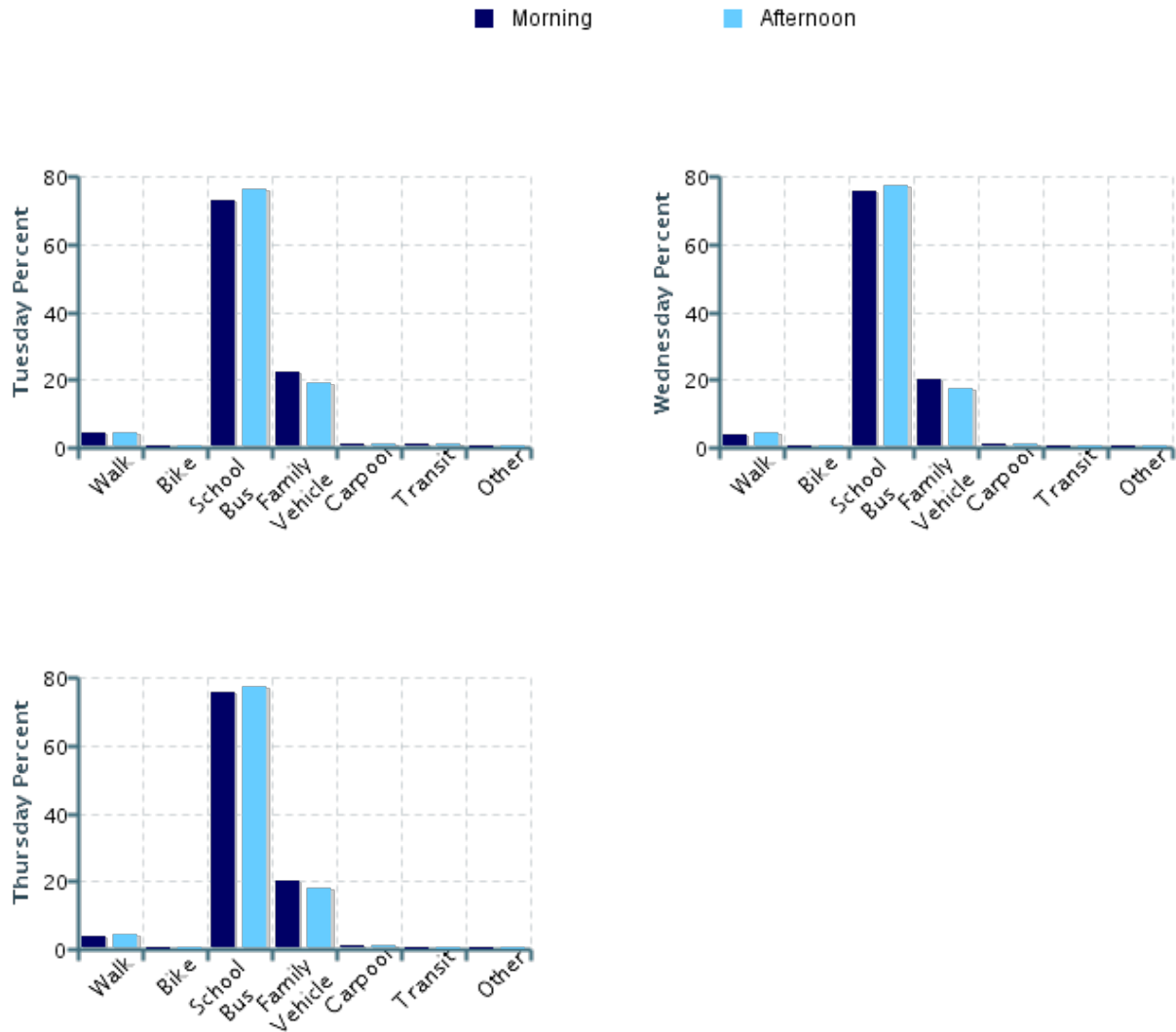


### Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	1169	4%	0%	75%	21%	0.5%	0.1%	0%
Afternoon	1149	4%	0%	77%	18%	0.6%	0.1%	0%

Percentages may not total 100% due to rounding.

## Morning and Afternoon Travel Mode Comparison by Day

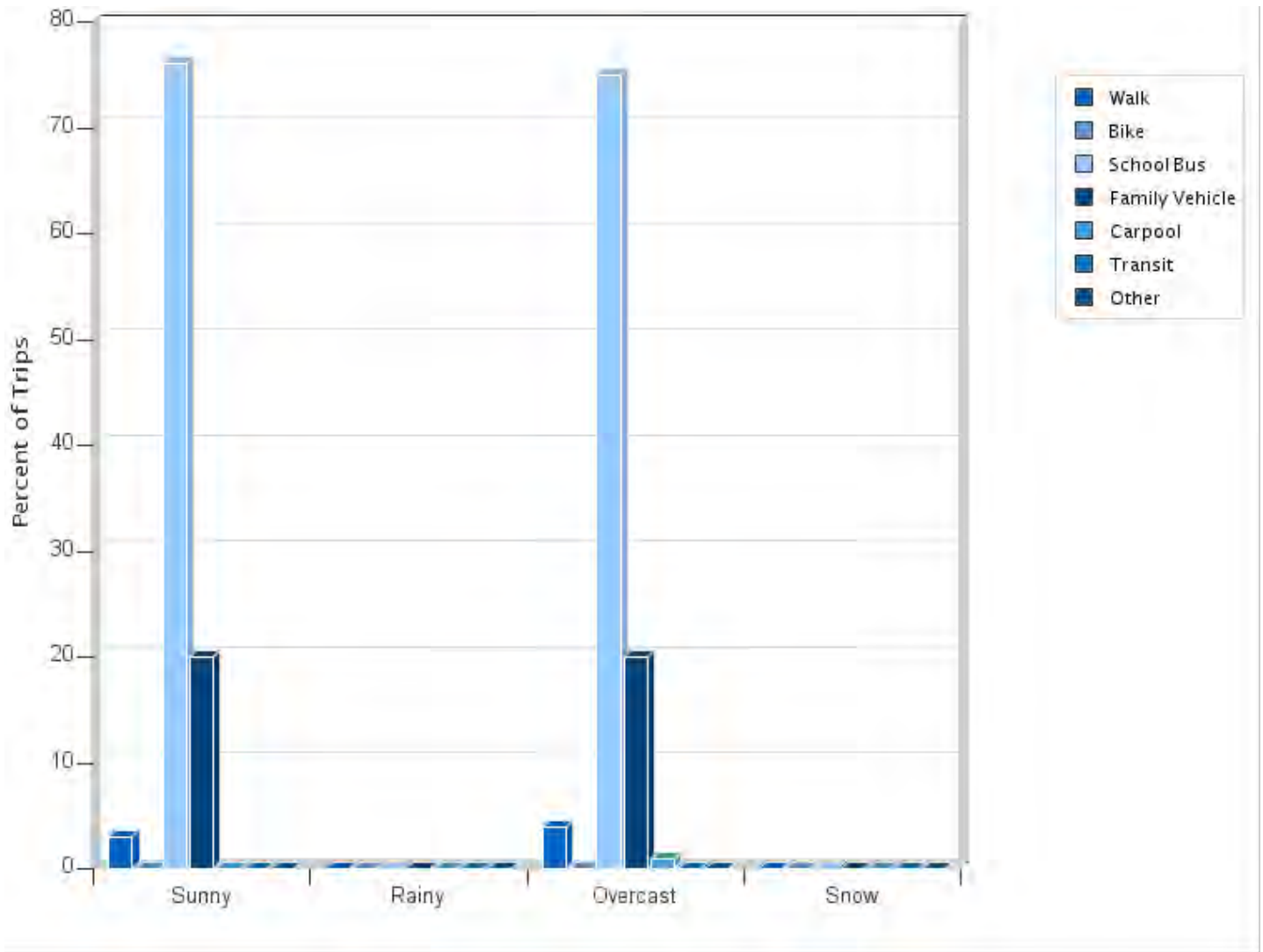


## Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	388	4%	0%	73%	22%	0.5%	0.3%	0%
Tuesday PM	386	4%	0%	76%	19%	0.5%	0.3%	0%
Wednesday AM	386	4%	0%	76%	20%	0.5%	0%	0%
Wednesday PM	387	4%	0%	77%	18%	0.8%	0%	0%
Thursday AM	395	4%	0%	76%	20%	0.5%	0%	0%
Thursday PM	376	4%	0%	77%	18%	0.5%	0%	0%

Percentages may not total 100% due to rounding.

## Travel Mode by Weather Conditions



## Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	905	3%	0%	76%	20%	0.2%	0%	0%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	1356	4%	0%	75%	20%	0.8%	0.1%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.



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# Appendix H. Engagement Summary

## COMMUNITY ENGAGEMENT HIGHLIGHTS

### SRTS Planning Assistance – Community Engagement

Capitol Hill and Benjamin E. Mays Open House and Maxfield Elementary School's Culture Night

#### Opportunities

The Saint Paul Public School community shared that walking and biking can be healthy activities and can help students become more independent.

#### Barriers

The biggest barriers to walking and biking to Saint Paul Public Schools include safety concerns and distance from school. Parents and students requested slower car traffic and safer crossing on roads near their schools.

#### Infrastructure Findings

The Saint Paul Public School community suggested more stop signs at problematic intersections along Concordia and Victoria Avenues to help students cross more safely.

#### Program Findings

Expanding on existing crossing guard programs and adding walk/bike education, walking school bus/bike trains, walk/bike field trips, and walk/bike buddies could help support walking and biking to Saint Paul Public Schools.

## INTRODUCTION

The 2017 Safe Routes to School (SRTS) program included three Saint Paul Public Schools: Capitol Hill, a 1-8 school; Benjamin E. Mays, a PreK-5 school; and Maxfield Elementary School, a K-5 school. Capitol Hill and Benjamin E. Mays are located on a shared campus at 560 Concordia Avenue in Saint Paul. Maxfield Elementary School is located at 380 Victoria Street North in Saint Paul.

As a part of the 2017 SRTS program, the Minnesota Department of Transportation (MnDOT) provided Saint Paul Public Schools with technical assistance which included engagement with the Capitol Hill, Benjamin E. Mays, and Maxfield Elementary communities (e.g., parents, students, staff, etc.). The purpose of this engagement was to:

- Provide information
- Identify walking and biking routes and barriers
- Understand community desires
- Build excitement and support for walking and biking

SRTS staff hosted an open house Capitol Hill and Benjamin E. Mays on November 30, 2017 and conducted a “pop-up” style table at Maxfield Elementary’s Culture Night on December 14, 2017. Both the open house and pop-up table included activities and information for attendees. Activities included a routes and barriers mapping activity, a visioning board, a “build your route” design game, and a “how I walk and bike” self-portrait drawing activity. Information included SRTS overview materials. In total, staff interacted with around 40 students, parents, and faculty through the open house and pop-up table.

## EXISTING CONDITIONS

#### Opportunities

The Capitol Hill, Benjamin E. Mays, and Maxfield Elementary communities generally like to walk and bike since it helps to get students outside and allows them to be more independent. The frequency of walking and biking to





Students think creatively about their neighborhoods with “build your route” activity.

Capitol Hill and Benjamin E. Mays has improved over recent years with the addition of a sidewalk along Concordia Avenue and a crossing guard to help students cross Concordia Avenue from the pedestrian bridge. Parents and students say these improvements have made it easier to walk to school and they hope improvement will continue to occur. Parents at Maxfield Elementary tend to agree that there are opportunities for improvement that could help more students walk or bike to school.

The following are quotes from Capitol Hill and Benjamin E. Mays Open House and Maxfield Elementary School's Culture Night:

- “Means of transportation for kids”
- “Saves time”
- “Get to be outside more”
- “Get to stop and see things while walking”
- “Live too far to walk or bike”
- “Safety keeps them from walking and biking to school”
- “Ice on the western bridge”

## Barriers

The biggest barriers to walking and biking to Saint Paul public Schools are safety concerns, distance from school, and temperature. Many Saint Paul Public School parents said that they would feel unsafe letting their children walk

to school alone because it is too dangerous. One Capitol Hill parent said they are nervous about kids crossing Concordia Avenue and biking in the street. A parent from Maxfield said that students have had bad things happen to them on the way to and from school. Several people said that cold during the winter is barrier to walking and biking more.

### **Problematic Roads**

- Concordia Avenue
- Victoria Avenue

Parents and students from all three schools said they have difficulty crossing Concordia Avenue, especially people from Capitol Hill and Benjamin E. Mays. People feel that the traffic is too fast on Concordia Avenue and there are no safe crossings. People from Maxfield feel similarly about crossing Victoria Avenue and wish there were more breaks in traffic and safe crossing points along Victoria Avenue.

### **Problematic Intersections**

- Concordia Avenue—Pedestrian Bridge
- Victoria Avenue—Central Avenue

Parents and students from Capitol Hill and Benjamin E. Mays say that crossing Concordia Avenue from the pedestrian bridge feels unsafe since cars speed and tend not to stop at the crosswalk. Even with the new crosswalk and crossing guards, they still think it is dangerous to traverse.

Several parents and staff from Maxfield Elementary are concerned about students crossing Victoria Avenue and Central Avenue. They wish the crossing distance wasn't as long and that car traffic would slow down.

## **FINDINGS**

### **Infrastructure**

Parents and students requested more protection from cars when walking and biking to and from Saint Paul Public Schools. The Capitol Hill, Benjamin E. Mays, and Maxfield Elementary communities had suggestion for problematic roads like Concordia Avenue and Victoria Avenue. One parent from Capitol Hill requested stop signs on Concordia Avenue at the pedestrian bridge to help students safely cross Concordia Avenue. A couple of parents and staff from Maxfield Elementary suggested turning the intersection of Victoria Avenue and Central Avenue into a four-way stop by adding stop signs on Victoria Avenue.

### **Programs**

**Crossing Guards** – One program that came up at all three Saint Paul Public Schools was the use of crossing guards to help students cross problematic roads. Parents at Capitol Hill felt the crossing guard on Concordia Avenue at the pedestrian bridge was helpful and should continue to be used. Several people from Maxfield suggested the use of crossing guards on Victoria Avenue at both Central Avenue and Saint Anthony Avenue intersections to help students walk and bike to and from school.

**Education** – Parents indicated that bicycle and walking education would be helpful for students to learn about how to safely walk and bike to school. Several parents stated that their students are too young to walk and bike alone and that it is too dangerous for them to bicycle with traffic. Education programs such as elective classes or a bike rodeo were well received by some parents and could help ease parent concerns about safety while walking and biking to school.

**Walking School Bus/Bike Trains** – Another idea brought forward during SRTS engagement was to organize regular walking school buses or bike trains. One parent said that having a group of students and adults walk or bike to school together could alleviate concerns about students walking and biking to school alone.

**Walk/Bike Field Trip** – Saint Paul Public Schools could add walk/bike field trips to give students more opportunities to walk and bike at school and to help groups of students practice walking and biking skills. Adult supervisors leading the walks or bikes could help students cross roads safely and also provide an activity break in the school



day. Students and adult supervisors could walk to popular destinations in their areas such as parks or recreation centers.

**Walk/Bike Buddies** – A parent from Maxfield Elementary said that their student buddies up with an older student to get to daycare after school. The parent said their student’s older buddy made them more comfortable with allowing their student to walk from school without an adult. The Saint Paul Public Schools could implement a program that matches older and younger students who live in the same neighborhoods or who have common destinations to help younger students become more comfortable walking and biking to school. Student buddies would also have the opportunity to get to know those who live near them and to practice safe walking and biking habits together.

## OTHER FINDINGS

The Capitol Hill and Benjamin E. Mays Open House had a low turnout and should have had better advertised through the school. One parent thought the event would have been better attended if it was attached to an existing event. It is also surprising to note that Interstate 94 did not come up as a problematic road during engagement.

# Appendix I. Infrastructure Toolbox

This infrastructure toolbox provides an overview of different infrastructure projects. Each infrastructure project includes a pictorial representation, a brief description, a typical and estimated cost, and a list of resources for more specific engineering guidelines. References are shown at the end of this section.

## ADVANCED STOP LINES

### Description

An advanced stop line is a solid white line painted ahead of crosswalks on multi-lane approaches to alert drivers where to stop to let pedestrians cross. It is recommended that advanced stop lines be placed twenty to fifty feet before a crosswalk. This encourages drivers to stop back far enough for a pedestrian to see if a second motor vehicle is approaching, reducing the risk of a hidden-threat collision. Advanced stop lines can also be used with smaller turning radii to create a larger effective turning radius to accommodate infrequent (but large) vehicles.



### Estimated Costs<sup>A,E</sup>

- \$8.50 per linear foot; \$85 for a ten foot travel lane

### Resources

- Reducing Conflicts Between Motor Vehicles and Pedestrians: The Separate and Combined Effects of Pavement Markings and a Sign Prompt
- FHWA Signalized Intersections: Informational Guide – Pages: 192- 193
- MN MUTCD: Part 3. Markings – Page: 3B-32
- NACTO Urban Street Design Guide – Pages: 109-116, 144

## CROSSING GUARD

### Description

Facilitated crossings are marked crossing locations along student routes where adult crossing guards or trained student patrols are stationed to assist students with safely crossing the street. Facilitated crossings may be located on or off campus. Determining whether a location is more appropriate for an adult crossing guard or student patrol may be based on location including distance from school, visibility, and traffic characteristics. Adult crossing guards and student patrols receive special training, and are equipped with high-visibility traffic vests and flags when on duty.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 25-26
- MnDOT Minnesota Safe Routes to School: School Crossing Guard Brief Guide
- MN MUTCD: Part 7. Traffic Controls for School Areas – Pages: 7D-1-2

### Estimated Costs<sup>D</sup>

- \$14.00 per hour average wage for a crossing guard



## CURB EXTENSION/BULB OUT

### Description

Curb extensions extend the sidewalk and curb into the motor-vehicle parking lanes at intersections or mid-block crossings. Also called bump-outs or bulb-outs, these facilities improve safety and convenience for people crossing the street by shortening the crossing distance and increasing visibility of people walking or biking to those driving.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 11-12
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 6-11
- FHWA Signalized Intersections: Informational Guide – Pages: 190-192
- NACTO Urban Street Design Guide – Pages: 45-59

### Estimated Costs<sup>E</sup>

- \$13,000 for a single corner



## CURB RADIUS REDUCTION

### Description

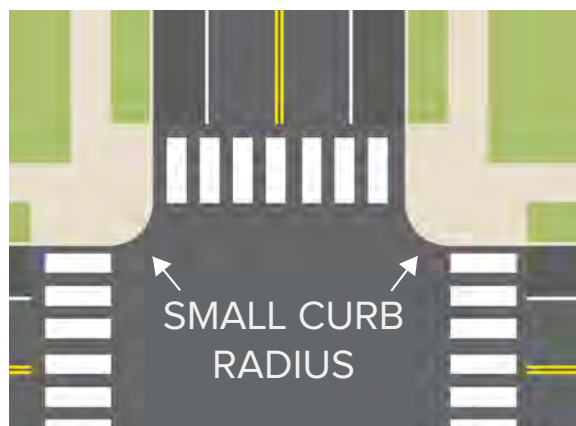
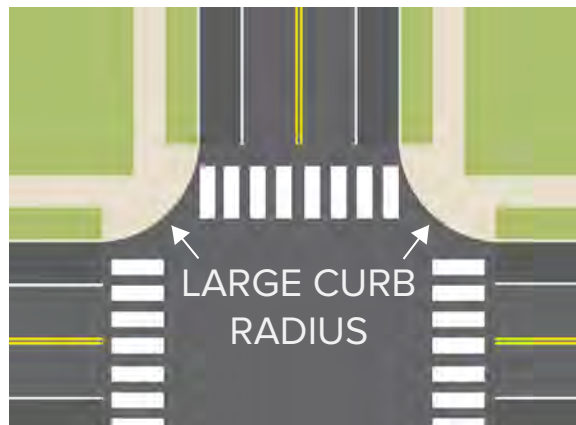
Curb radii designs are determined based on the design vehicle of the roadway. In general, vehicles are able to take turns more quickly around corners with larger curb radii. Minimizing curb radii forces drivers to take turns at slower speeds, making it easier and safer for people walking or biking to cross the street. An actual curb radius of five to ten feet should be used wherever possible, while appropriate effective turning radii range from 15 to 30 feet, depending on the roadway and land use context.

### Resources

- FHWA Signalized Intersections: Informational Guide – Pages: 187-189
- NACTO Urban Street Design Guide – Pages: 117-120, 144-146

### Estimated Costs<sup>F, G</sup>

- \$2,000-\$40,000, depending on need for utility relocation and drainage



## CURB RAMPS

### Description

Curb ramps provide access for people between roadways and sidewalks for people using wheelchairs, strollers, walkers, crutches, bicycles, or who have mobility restrictions that make it difficult to step up or down from curbs. Curb ramps must be installed at intersections and mid-block crossings where pedestrian crossings are located, as mandated by federal law. Separate curb ramps should be provided for each direction of travel across the street.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 1-2
- FHWA Signalized Intersections: Informational Guide – Pages: 47-50
- United States Access Board Proposed Accessibility Guidelines for Pedestrian Facilities in Public Right-of-Way – Pages: 66-67, 78-83

### Estimated Costs

- Varies depending on retrofit or new construction, material used.

## HAWK SIGNALS

### Description

The High-Intensity Activated Crosswalk Beacon (HAWK), also referred to as a Pedestrian Hybrid Beacon System by MnDOT, remains dark until activated by pressing the crossing button. Once activated, the signal responds immediately with a flashing yellow pattern which transitions to a solid red light, providing unequivocal 'stop' guidance to motorists. HAWK signals have been shown to elicit high rates of motorist compliance.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 13-15
- FHWA Safety Effectiveness of the HAWK Pedestrian Crossing Treatment
- FHWA Evaluation of Pedestrian and Bicycle Engineering Countermeasures: Rectangular Rapid-Flashing Beacons, HAWKs, Sharrows, Crosswalk Markings, and the Development of an Evaluation Methods Report – Pages: 19-28

### Estimated Costs<sup>H</sup>

- \$80,000. Includes one HAWK signal in each direction



## HIGH-VISIBILITY CROSSWALK

### Description

High-visibility crosswalks help to create a continuous route network for people walking and biking by alerting motorists to their potential presence at crossings and intersections. Crosswalks should be used at fully controlled intersections where sidewalks or shared-use paths exist.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 3-8
- MnDOT Guidance for Installation of Pedestrian Crosswalks on Minnesota State Highways – Page: 3
- MN MUTCD: Part 3. Markings – Pages: 3B-34-38
- MN MUTCD: Part 7. Traffic Controls for School Areas – Pages: 7A-1-3, 7B-5-8, 7C-1
- NACTO Urban Street Design Guide – Pages: 109-116

### Estimated Costs<sup>E</sup>

- \$25,000 each, depending on materials: paint vs. thermoplastic

## LEADING PEDESTRIAN INTERVAL

### Description

A Leading Pedestrian Interval (LPI) provides pedestrians with a three to seven second head start when entering an intersection with a corresponding green signal in the same direction of travel. LPIs enhance the visibility of pedestrians in the crosswalk, and reinforce their right-of-way over turning vehicles. LPIs are most useful in areas where pedestrian travel and turning vehicle volumes are both high.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 20-22
- NACTO Urban Street Design Guide – Page: 128

### Estimated Costs<sup>A</sup>

- \$0-\$3,500, depending on the need for new hardware vs. revising existing signal timing

## MEDIAN REFUGE ISLAND

### Description

Median refuge islands (also known as median crossing islands) make crossings safer and easier by dividing them into two stages so that pedestrians and bicyclists only have to cross one direction of traffic at a time. Median refuges can be especially beneficial for slower walkers including children or the elderly. Crossing medians may also provide traffic calming benefits by visually narrowing the roadway.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 9-10, 43-44
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 17-20
- FHWA Proven Safety Countermeasures: Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
- MN MUTCD: Part 3. Markings – Page: 3I-2
- NACTO Urban Street Design Guide – Page: 116

### Estimated Costs<sup>E</sup>

- \$13,500, \$10 per square foot

## RAISED CROSSWALKS

### Description

Raised crosswalks are wide and gradual speed humps placed at pedestrian and bicyclist crossings. They are typically as high as the curb on either side of the street, eliminating grade changes for people crossing the street. Raised crosswalks help to calm approaching traffic and improve visibility of people crossing.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 3-4
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 12-15
- MN MUTCD: Part 3. Markings – Pages: 3B-46-49
- NACTO Urban Street Design Guide – Page: 54

### Estimated Costs<sup>E</sup>

- \$8,170 each





## ACTIVATED FLASHING BEACON

### Description

One type of activated flashing beacon is a rectangular rapid flashing beacon (RRFB). It uses an irregular stutter flash pattern with bright amber lights (similar to those on emergency vehicles) to alert drivers to yield to people waiting to cross. The RRFB offers a higher level of driver compliance than other flashing yellow beacons, but lower than the HAWK signal.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 16-17
- FHWA Effects of Yellow Rectangular Rapid-Flashing Beacon on Yielding at Multi-lane Uncontrolled Crosswalks
- FHWA Evaluation of Pedestrian and Bicycle Engineering Countermeasures: Rectangular Rapid-Flashing Beacons, HAWKs, Sharrows, Crosswalk Markings, and the Development of an Evaluation Methods Report – Pages: 13-18

### Estimated Costs<sup>B</sup>

- \$36,000 for two assemblies on poles

## ROAD DIET

### Description

A classic road diet converts an existing four-lane roadway to a three-lane cross-section consisting of two through lanes and a center two-way left turn lane. Road diets improve safety by including a protected left-turn lane, calming traffic, reducing conflict points, and reducing crossing distance for pedestrians. In addition, road diets provide an opportunity to allocate excess roadway for alternative uses such as bike facilities, parking, transit lanes, and pedestrian or landscaping improvements.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 29-31
- FHWA Road Diet Desk Reference
- FHWA Road Diet Informational Guide
- NACTO Urban Street Design Guide – Page: 14

### Estimated Costs<sup>E</sup>

- \$120,680 per mile, assuming eight blocks in a mile. Estimate includes 16 symbols, 16 signs, six curb extensions, one mini traffic circle

## SCHOOL SPEED ZONE

### Description

School speed zones reduce speed limits near schools, and alert motorists that they are driving near a school. School speed zones are defined as the section of road adjacent to school grounds, or where an established school crossing with advance school signs is present. Each road authority may establish school speed zone limits on roads under their jurisdiction. In general, school speed limits shall not be more than 30 mph below the established speed limit, and may not be lower than 15 mph. Speed violations within school speed zones are subject to a double fine.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 48-51
- MnDOT School Zone Speed Limits
- MN MUTCD: Part 7. Traffic Controls for School Areas – Section: 7E

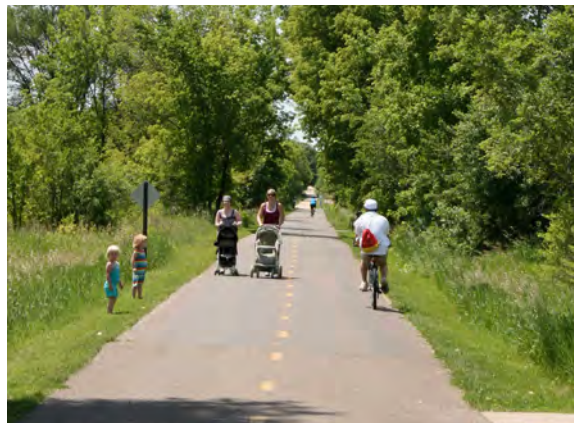
### Estimated Costs<sup>A, C</sup>

- \$600 for sign and post in each direction

## SHARED USE PATH

### Description

Shared-use paths provide off-road connections for people walking and biking. Paths are often located along waterways, abandoned or active railroad corridors, limited access highways, or parks and open spaces. Shared-use paths may also be located along high-speed, high-volume roads as an alternative to sidewalks and on-street bikeways; however, intersections with roadways should be minimal. Shared-use paths are generally very comfortable for users of all ages and abilities.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 2
- MnDOT Bikeway Facility Design Manual – Pages: 123-168
- AASHTO Guide for the Development of Bicycle Facilities – Chapter 5

### Estimated Costs<sup>B</sup>

- \$55 per linear foot, 10 ft trail with aggregate base and associated costs



## SIDEWALKS

### Description

A well-connected sidewalk network is the foundation of pedestrian mobility and accessibility. Sidewalks provide people walking with space to travel within the public right-of-way that is separated from roadway vehicles. Sidewalks are associated with significant reductions in motor vehicle / pedestrian collisions.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 1-2
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- NACTO Urban Street Design Guide – Pages: 37-44
- United States Access Board Proposed Guidelines for Pedestrian Facilities in Public Right-of-Way

### Estimated Costs<sup>A, B</sup>

- \$84 per linear foot of 6 ft sidewalk with aggregate base

## TRAFFIC CIRCLES (MINI ROUNDABOUTS)

### Description

Traffic circles are raised circular islands constructed in the center of residential intersections. They may take the place of a signal or four-way stop sign, and calm vehicle traffic speeds by forcing motorists to navigate around them without requiring a complete stop. Signage should be installed with traffic circles directing motorists to proceed around the right side of the circle before passing through or making a left turn.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 43-44
- FHWA Technical Summary: Mini-Roundabouts
- FHWA Technical Summary: Roundabouts – Page: 7 (mention of school area siting)
- MN MUTCD: Part 3. Markings – Pages: 3C1-15
- NACTO Urban Street Design Guide – Page: 99

### Estimated Costs<sup>E</sup>

- \$35,000-\$50,000 each

### Sources

- A: <http://www.dot.state.mn.us/bidlet/avgPrice/AVGPR162015.pdf>  
 B: <http://www.hennepin.us/~media/hennepinus/residents/transportation/bottineau-documents-mpls-gv/estimated-infrastructure-costs-and-funding.pdf?la=en>  
 C: <http://www.trafficsign.us/signcost.html>  
 D: <https://www.bls.gov/oes/current/oes339091.htm>  
 E: [http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs\\_Report\\_Nov2013.pdf](http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf)  
 F: [http://guide.saferoutesinfo.org/engineering/reduced\\_corner\\_radii.cfm](http://guide.saferoutesinfo.org/engineering/reduced_corner_radii.cfm)  
 G: [http://www.pedbikeinfo.org/cms/downloads/Countermeasure\\_Costs\\_Summary\\_Oct2013.pdf](http://www.pedbikeinfo.org/cms/downloads/Countermeasure_Costs_Summary_Oct2013.pdf)  
 H: <http://www2.ku.edu/~kutc/pdffiles/LTAPFS11-Mid-Block.pdf>

# Appendix J. Bike Parking for Schools

Bicycle parking at schools does more than just provide space for storage during the school day. Depending on design, bicycle parking can actually encourage students and staff to choose to ride their bikes to school. Here are some things to think about when planning bicycle parking at school.

## HOW MUCH PARKING SHOULD BE PROVIDED?

The amount of bike parking needed will depend on the capacity of your school, the ages of students, and the number of staff. But remember: be aspirational! Provide parking for the number of students and staff you'd like to see biking! The following are some guidelines:

- Aim for 25 percent of the maximum student capacity of the school.
- Provide additional parking to encourage staff and faculty to bike to school

*For example, if each classroom has a max capacity of 20 students and there are 10 classrooms, space for 50 bicycles should be provided. Don't forget to add some for faculty and staff!*

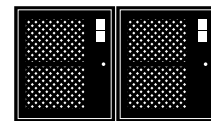
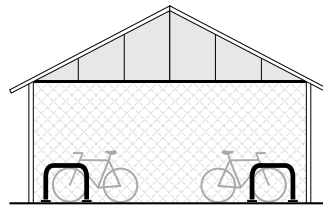
## WHERE SHOULD PARKING BE LOCATED?

Well-located bike parking will be:

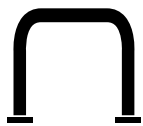
- visible to students, staff, and visitors
- near the primary school entrance/exit
- easily accessed without dismounting
- clear of obstructions which might limit the circulation of users and their bikes
- easily accessed without making a rider cross bus and car circulation
- installed on a hard, stable surface that is unaffected by weather
- often found near kindergarten and daycare entrance, which allows parents to conveniently pick up their children on their bikes

## CAN MY SCHOOL PROVIDE ADDITIONAL AMENITIES?

Bike parking shelters and lockers provide extra comfort and security for those choosing to ride to school. They're also a great project for a shop class. Both can be very simple in construction and go a long way towards making biking attractive and prioritized!



## WHICH RACKS ARE BEST?



INVERTED U



POST & RING



WHEELWELL SECURE

*These racks provide two points of contact with the bicycle, accommodate varying styles of bike, allow for at least one wheel to be U-locked, and are intuitive to use!*

## WHICH RACKS ARE NOT RECOMMENDED?



WAVE

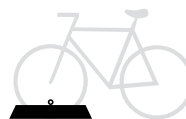


COMB



SPIRAL

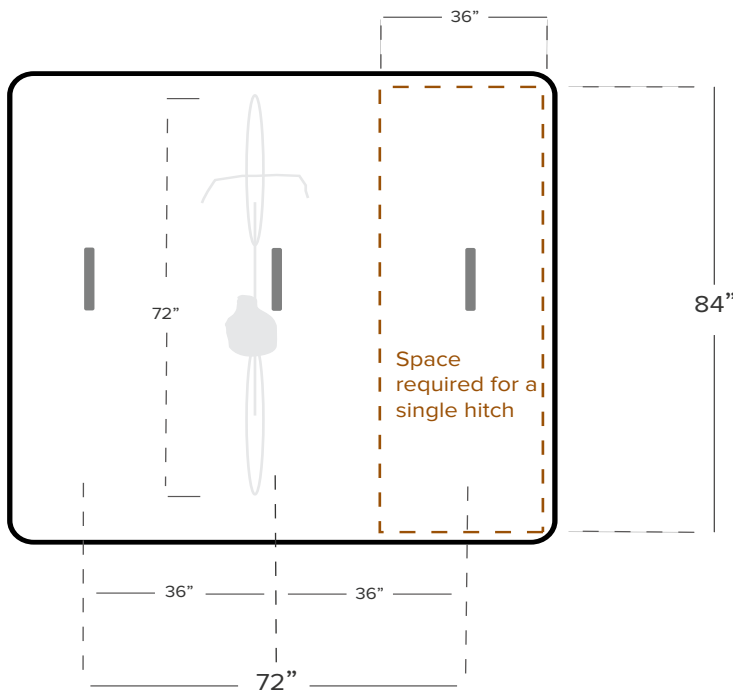
*These racks do not provide support at two places on the bike, can damage the wheel, do not provide adequate security, and are not intuitive to use!*



WHEELWELL

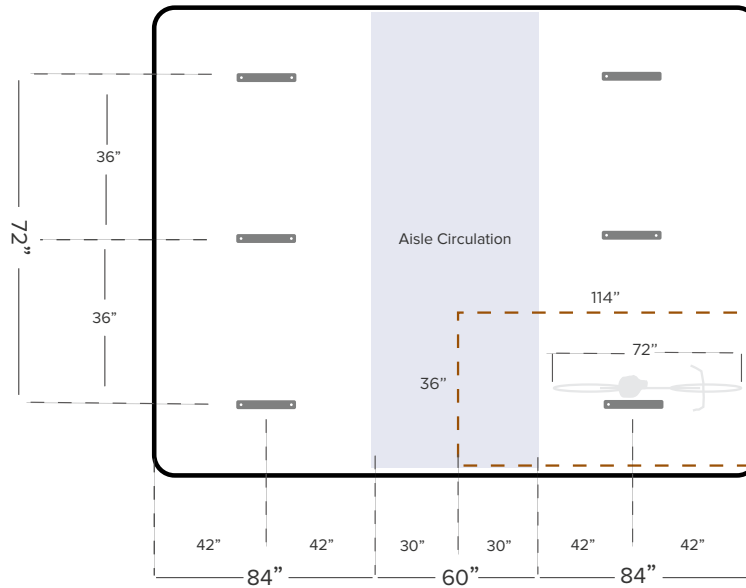
*Graphics courtesy of Association of Pedestrian and Bicycle Professionals Essentials of Bike Parking report (2015).*

# SPACE REQUIREMENTS



The space requirements shown here assume a person parking their bike would have open access forward and from behind.

The space requirements shown here assume the area is confined on either side (left and right). Access is located at the top and bottom of the image, requiring a center aisle for circulation.



Space required for a single hitch

## RESOURCES FOR EQUIPMENT

- [Dero](#)
- [Sportworks](#)
- [Urban Racks](#)

## MORE INFORMATION

- [APBP Essentials of Bike Parking](#)
- [Bike Shelter Development Guide](#)
- [-Portland Public Schools](#)

# Appendix K. Maintenance Planning

## ANNUAL MAINTENANCE

School routes and crosswalks should be prioritized for maintenance. To ensure high visibility crosswalks maintain their effectiveness, review all crosswalks within one block of the school each year. If there is notable deterioration, crosswalks should be repainted annually. In addition, crosswalks on key school walk routes should be evaluated annually and repainted every other year or more often as needed.

## SEASONAL PLANNING AND MAINTENANCE

Walking and cycling generally diminish during the cold winter months as poorly maintained infrastructure and unpleasant weather conditions create barriers for pedestrians and bicyclists. However, maintaining infrastructure and planning inviting winterscapes for students can facilitate the convenience of biking and walking as well as provide new opportunities to encourage students to be outside more.

Snow removal and maintenance of school routes should be prioritized. Snow removal is a critical component of pedestrian and bicycle safety. The presence of snow or ice on sidewalks, curb ramps, or bikeways will deter pedestrian and cyclist use of those facilities to a much higher degree than cold temperature alone. Families with children will avoid walking in locations where ice or snow accumulation creates slippery conditions that may cause a fall. Curb ramps that are blocked by ice or snow effectively sever access to pedestrian facilities. Additionally, inadequately maintained facilities may force pedestrians and bicyclists into the street. Identified routes to school should be given priority for snow removal and ongoing maintenance.

While it is important to prioritize maintenance, additional planning should be employed to create new opportunities to encourage students to be outside more through design. According to the City of Edmonton's Winter Design Guidelines, the five main design principles for designing cities that are inviting and functional for outdoor public life year-round include blocking wind, capturing sunshine, using color, lighting, and providing infrastructure that supports desired winter activities.

Lighting is important year-round, but becomes increasingly important in the winter for creating more inviting winterscapes for pedestrians and bicyclists. Lighting can contribute to inducing a sense of warmth and safety, as well as be used for wayfinding and as passive public art displays.

Lastly, providing infrastructure that supports desired winter activities can also encourage more active transportation. Some particularly encouraging strategies beyond providing ice skating rinks that have been employed in Edmonton, Canada include harnessing plowed snow piles and stored snow to create new play opportunities for students. These snow piles can be strategically placed in parks along walking routes and mounded into winter slides. Other practices have included regularly compacting snow to make it malleable enough for students to construct their own snow house structures, with maintenance crews compacting the snow every few days to prevent it from forming into denser ice.

## Resources

Winter Design Guidelines: Transforming Edmonton into a Great Winter City

[https://www.edmonton.ca/city\\_government/documents/PDF/WinterCityDesignGuidelines\\_draft.pdf](https://www.edmonton.ca/city_government/documents/PDF/WinterCityDesignGuidelines_draft.pdf)



# Appendix L. Equity in SRTS Planning

When planning and implementing your SRTS programming, it is important to design events and activities that are inclusive of students of all backgrounds and abilities. This appendix identifies potential obstacles to participation and suggests creative outreach, low-cost solutions, and flexible program implementation to address language barriers, students with disabilities, personal safety concerns, and barriers related to school distance.

## LANGUAGE AND/OR CULTURAL BARRIERS

To encourage families that do not speak English, are learning English, or have recently immigrated to participate in Safe Routes to School programs, it is important to communicate how the program can benefit families and address parental concerns. Hiring a bilingual staff person is the best way to communicate and form relationships with a community.

### Provide Materials in Multiple Languages

Some concepts can lose their meaning and be confusing when translated literally. Also, words may have different meanings depending on the regional dialect.

- Ask families with native speakers to help communicate the message to others.
- Use images to supplement words so that handouts are easy to read and understand.

### Use a Variety of Media

In schools where families speak different languages, it can be a good idea to present information in multiple ways.

- Use a variety of mechanisms to communicate the benefits of walking and bicycling to parents.
- Have students perform to their parents, such as through a school play.
- Encourage youth-produced PSAs to educate parents on why biking and walking are fun and healthy events.
- Provide emails, print materials, etc., in multiple languages.
- Use a phone tree, PTA, or events to reach parents.
- Engage an assistant who speaks multiple languages to reach out to parents at events.
- Employ staff from similar ethnic backgrounds to parents at the school.
- Parents increasingly use texting more than emails. Find out how parents communicate with each other and use their methods.

### Meet People Where They Are

Some families may not feel comfortable coming to your events or participating in formal PTA and organizations.

- Attend established meetings to reach groups who may not participate in school PTAs or other formal meetings.
- State required English Learner Advisory Committees (ELACs) are good partners.
- Conduct outreach or table at school events (such as: Movie nights, family dance nights, Back to School nights, etc.).

Residents are often aware of traffic and personal safety issues in their neighborhoods, but don't know how to address them.

- Provide a safe place for parents to voice concerns to start the conversation about making improvements. Listen to their concerns, help parents prioritize, and connect them with the responsible agency to address the concerns.
- Encourage staff or parent volunteers to host house meetings, in which a small group gathers at the home of someone they know to voice concerns and brainstorm solutions.
- Seek common goals for community improvement that can be addressed through collaborative efforts with all parent groups.
- When looking for volunteers, start by looking to friends and neighbors to build your base group.
- Be creative; consider going to community events like Farmer's Markets and neighborhood gathering spots to recruit. Try different ways of engaging with participants; the City as Play Design Workshops have creative ideas for asking attendees to build their visions.

- Look for small victories: adding a crossing guard, signage and paint gives parents confidence that their issues can be addressed.

### Host Parent Workshops

All parents desire for their children to be successful. Workshops are a good opportunity to articulate how services and programs can reduce barriers to students' success and help them be successful.

- Create simple ways for parents to get involved and help put on events and activities with their children, who can often help navigate the situation.
- Hold a "Parent University," or workshops where parents can voice their concerns.
- Listen to and act on parents' suggestions to build trust in the community and address concerns.
- Include an icebreaker activity to introduce yourself and to make the participants more comfortable sharing their thoughts and opinions.

### Establish Flexible Programs

Create a trusting and welcoming environment by not requiring participants to provide information about themselves, which could be a deterrent to undocumented immigrants.

- Establish a training program for volunteers that does not require background checks or fingerprints since some parents who would like to volunteer may not be able to pass background checks.

Often working parents have limited time to volunteer with their children's schools. The hours and benefits associated with many jobs can make it challenging for parents to be available for school activities and take paid time off.

- Host meetings and events at varying times to accommodate differing work schedules.
- Make specific requests and delegate so no single person has to do the majority of the work.

### Communicate Health Benefits

Families who are not as well-connected to the school community may not be as aware of the benefits of SRTS programming.

- Publicize to parents that walking and biking to school is exercise and to children that it is fun, like an additional recess.
- Encourage caregivers to attend health fairs that highlight biking and walking to create an association between those commute options and their benefits. Encouragement competitions such as the Golden Sneaker Award and Pollution Punch Card can show how many calories students have burned.

## STUDENTS WITH DISABILITIES

Some students may not be able to walk or bike to school because of physical or mental disabilities, but they can still be included in SRTS programs.

- Invite children with physical disabilities to participate in school infrastructure audits to learn how to improve school access for all.
- Understand that students with mental disabilities may have differing capacities for retaining personal and traffic safety information, but programs like neighborhood cleanups and after-school programs can be fun ways to socialize and participate with other students.
- Involve special education instructors and parents of disabled students in the planning and implementation of these programs to better determine the needs of children with disabilities.
- Create SRTS materials that recognize students with disabilities. Include pictures of students with disabilities in program messaging to highlight that SRTS programs are suitable for all students.

### Additional Resources

- National Center for SRTS's Involving Students with Disabilities
- SRTS National Partnership's: Serving Students with Disabilities





## PERSONAL SAFETY CONCERNS

In some communities, personal safety concerns associated with crime activity is a significant barrier to walking and bicycling. These can include issues of violence, dogs, drug use, and other deterrents that can take precedence over SRTS activities in communities. These neighborhoods may lack sidewalks or other facilities that offer safe access to school, and major roads may be barriers.

### Neighborhood Watch Programs

Establishing neighborhood crime watches, parent patrols, and safety zones can involve the community in addressing personal safety concerns as supervision reduces the risk of bullying, crime, and other unsafe behavior.

- Set up parent patrols to roam areas of concern. Safe Passages or Corner Captain programs station parent or community volunteers on designated key street corners to increase adult presence to watch over children as they walk and bicycle to school.
- Issue special hats, vests, or jackets to give the volunteers legitimacy and identify them as patrol leaders.
- Provide walkie-talkies to allow parents to radio for help if they are confronting a situation they have not been able to resolve.
- Work to identify “safe places” like a home along the route where children can go to in the event of an emergency, or create a formal program with mapped safe places all children can go to if a situation feels dangerous.

### SchoolPool with a Group

SchoolPool, or commuting to school with other families and trusted adults, can address personal safety concerns about traveling alone.

- Form Walking School Buses, Bike Trains, or carpools. For information about how to set up a SchoolPool at your school, read the Spare the Air Youth SchoolPool guidebook at <http://www.sparetheairyouth.org/schoolpool-guidebook>. More information about organizing a Walking School Bus or Bike Train is available online at <http://www.sparetheairyouth.org/walking-school-buses-bike-trains>.

### Sponsor Neighborhood Beautification Projects

Clean neighborhoods free of trash and graffiti can create a sense of safety and help reduce crime rates.

- Host neighborhood beautification projects around schools, such as clean-up days, graffiti removal, and tree planting to help make families feel more comfortable and increase safety for walking or biking to school.
- Host a community dialogue about positive and negative uses of public space.

### Education Programs

Teach students and their families about appropriate safety issues. Parents may not want students to walk or bike if they are not confident in their child’s abilities.

#### Safety Information for Students

- Use time at school, such as during recess, PE, or no-cost after school programs, to teach children how to bike and walk safely.
- Utilize either existing curricula or bring in volunteer instructors from local advocacy groups and non-profit organizations.
- Teach children what to do in the event of an emergency and where to report suspicious activity or bullying.
- Provide helmets and bikes during the trainings will allow all students to participate regardless of whether or not they have access to these items.
- Organize an Open Streets event as a strategy to create safe zones to teach new skills in the street.

#### Safety Information for Parents

- Provide information about how to get to around safely.
- Develop and distribute suggested routes to school maps that highlight streets with amenities like sidewalks, lighting, low speeds, and less traffic.
- Identify informal shortcuts and cutthroughs that students may take to reduce travel time. Consider whether these routes may put students at risk (for example, by cutting through a fence, across a field, or near railroad tracks) and work with your city planners to improve the route.
- Provide flyers for parents about how to find other families groups to commute with or what to do in the event of an emergency to educate themselves and their children.

- Offer pedestrian safety training walks. Make these fun and interactive and address parents' safety concerns as well as provide tips for them to teach their children to be safe while walking.

## Resources

- SRTS National Partnership's Implementing Safe Routes to School in Low-Income Schools and Communities <http://www.saferoutespartnership.org/sites/default/files/pdf/LowIncomeGuide.pdf>

## BARRIERS RELATED TO SCHOOL DISTANCE

Some students simply live too far from school to reasonably walk or bike. However, there are programs that may be implemented to include these students in healthy physical activities, such as walking or biking.

### Remote Drop-off

- Suggest remote drop-offs for parents to drop their children off a couple blocks from the school so they can walk the rest of the way. Volunteers wait at the drop-off and walk with students at a designated time to ensure they arrive to school safely and on time.
- Remote drop-off sites can be underutilized parking lots at churches or grocery stores that give permission for their property to be used this way.
- Identify potential park and walk areas on route maps.

### Walk to School Bus Stops

- Incorporate physical activity into students' morning schedule by encouraging them to walk to bus stops.
- Utilize walking school bus programming to organize nearby students to walk in groups to a more centrally located bus stop, which may translate into fewer bus stops because more students will be boarding at each stop.

### Frequent Walker Programs

- Implement programs that identify walking opportunities on campus, which can be defined in terms of routes or by amount of time spent walking. This will allow students who arrive to school by bus or parent vehicle to benefit from the physical benefits provided by walking or biking to school.

## Additional Resources

- Safe Routes to School National Partnership Rural Communities: Making Safe Routes Work
- Safe Routes to School National Partnership Rural Communities: Best Practices and Promising Approaches for Safe Routes
- Safe Routes to School National Partnership Rural Communities: A Two Pronged Approach for Improving Walking and Bicycling



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