



SAFE ROUTES TO SCHOOL PLAN, JUNE 2019

A

APPENDICES

CITY OF FOLEY

Foley, MN

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Appendix A. For More Information



This 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.saferoutesdata.org/>

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

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

10 Tips for SRTS Programs and Liability

http://apps.saferoutesinfo.org/training/walking_school_bus/liabilitytipsheet.pdf

Tactical Urbanism and Safe Routes to School

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

STATE RESOURCES

Dave Cowan, Minnesota SRTS Coordinator

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651-366-4180

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Kelly Corbin, Safe Routes to School Planner

395 John Ireland Blvd

St. Paul, MN 55155

507-286-7590

Kelly.Corbin@state.mn.us

MnDOT SRTS Educational Webinars:

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

MnDOT Safe Routes to School Resource Website

<http://www.mnsaferoutestoschool.org>

Minnesota Safe Routes to School Facebook page

<https://www.facebook.com/MinnesotaSafeRoutes-to-School>

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

LOCAL RESOURCES

Sarah A. Brunn

City Administrator, City of Foley

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Corri Gross

General Secretary, Foley Elementary

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Monica Shaw

Accounting & Administrative Clerk, City of Foley

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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 percent 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 percent of short automobile trips to walking or biking decreases emissions by 2 to 4 percent.
- 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 CO₂ 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 CO₂ into the atmosphere. Cars account for an estimated 15 percent to 25 percent of U.S. CO₂ 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 percent, carbon monoxide by 80 percent and hydrocarbons by 90 percent 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.

Activities	September	October	November	December	January	February	March	April	May	June
Project kick off	X									
Rapid Planning Session scheduling & workshop			X							
Data collection - parent surveys (if needed)										
Data collection - School Environment and Policy Assessment										
Data collection - student travel hand tallies (if needed)										
Data collection - School Zone Hazard Observation										
Community engagement (in person and interactive)										
Draft Strategies and Action Steps						X				
Action Plans								X		
Draft Plans									X	
Final Plans										

Planning for this SRTS plan began in the summer of 2018, after the City of Foley successfully applied for and was awarded a planning assistance grant from MnDOT. On August 28, 2018, consultant staff met in Foley with team leaders - local SRTS team members who identified themselves as the core group. An informal training was given to the team leaders on the background and principles of SRTS.

Over the next few months of 2018, Foley schools conducted four early evaluation and data collection efforts to gather baseline information about walking and biking in the community. First, the three Foley schools sent a link to an online survey to parents 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 in the fall. 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.

To understand school and school district policies related to walking and biking, school principals were asked to complete a survey that asked questions about the physical and street environment surrounding school and arrival and dismissal procedures at school. Results of this survey can be found in Appendix H. Finally, the



local team conducted an observation of arrival and dismissal at each school to note hazardous behavior by people using the streets near school. These results can be found in Appendix I.

RAPID PLANNING SESSION

In late fall of 2018, a broad group of stakeholders met for an intensive day long meeting called a Rapid Planning Session. This charrette-style event brought together school, district, city and county staff, plus students, health professionals, and community members to discuss the challenges and opportunities for walking and biking to school in Foley. Broadly, the Rapid Planning Session included the following: observing arrival and dismissal at each of the three schools; performing a walk assessment of the conditions surrounding campus; discussing current programs that promote walking and biking at each school; meetings with students to hear the challenges they face while walking and biking in the community; and discussing current and planned road construction projects that might promote walking and biking in the community.

The Rapid Planning Session provided an opportunity to talk about challenges and opportunities in Foley and allowed stakeholders to witness those challenges first hand, and on site. The Rapid Planning Session also allowed local community members and professional staff to connect and create relationships that will serve as the foundation for a sustainable SRTS program in town. This meeting served as the basis for recommendations through the winter and spring of 2018-2019.

WINTER - SPRING 2018/2019

Following the Rapid Planning Session, consultant staff processed the photographs, notes, and observations and created issue and opportunity maps that were shared with local SRTS team members. These maps summarized the areas of concern that were observed during the Rapid Planning Session in order come to a consensus before moving forward to recommendations to improve the streets.

Following feedback from the local team, consultant staff drafted recommendations for infrastructure improvements and programs. These recommendations were shared with the local team in Spring 2019. After feedback from the local team, the recommendations were finalized and included in the main body of this document.





Surrounding Land Use

School Enrollment Boundary

[illegible]

The following travel pattern and parent survey summaries highlight results from an in class travel tally and a parent survey from fall 2018. The full results of each are in Appendix F and G.

CURRENT TRAVEL PATTERNS

In the fall of 2018, nearly 9,700 student trips were counted at the three schools. On three midweek days, students from all grades were asked how they traveled to and from school. These 9,695 trips represent each response. That is, individual students were counted up to six times during those three days (morning response day one, afternoon response day one, morning response day two, afternoon response day two, morning response day three, afternoon response day three). Appendix G gives details of these results.

Generally, Foley Intermediate students reported walking most often. Very few students reported biking on any of the three days. Elementary students reported riding the school bus most frequently, while high school students reported riding the school bus the least. Unsurprisingly, high school students reported riding in or driving a family vehicle the most frequently (along with carpooling).

PARENT SURVEY SUMMARY

One hundred and ninety five parent and caregiver responses were collected from a survey sent home to Foley families in the fall of 2018. The survey asked parents and caregivers about their feelings towards walking and biking to the five schools. At all schools, the vast majority of parents and caregivers reported their children either riding the school bus or getting dropped off or picked up in a family vehicle. In general, parents most often stated that distance, the safety of intersections and crossings, and the speed of vehicles influenced their willingness to allow their children to walk or bike to school.



Foley Student Locations and Bike Ped Crashes, 2006-2015

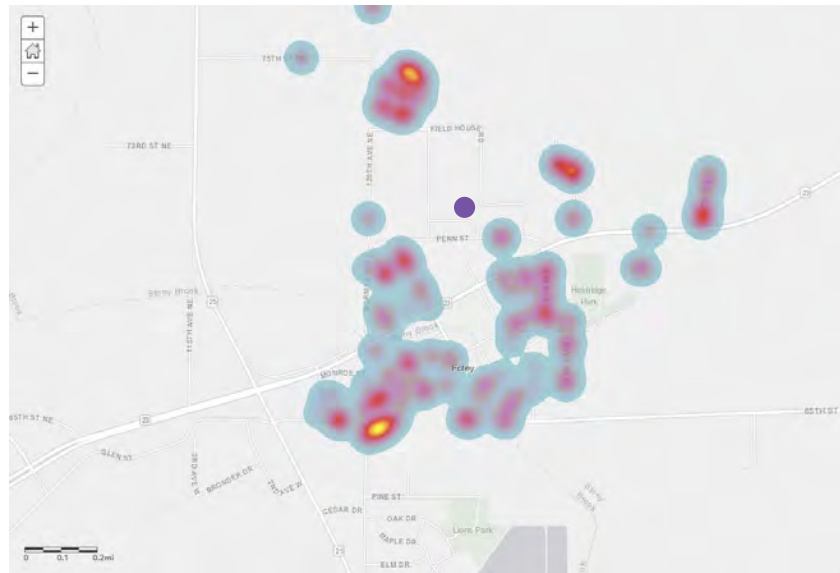
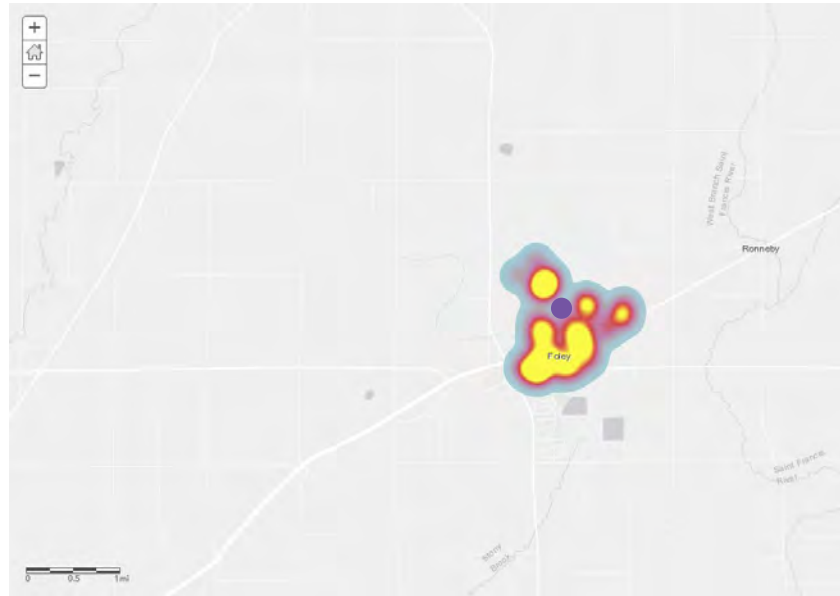


Appendix E. Student Residences

The maps below show the locations of students attending the three schools in the 2018-2019 school year. The top map shows the greater Benton County area. The lower map shows the area immediately surrounding school. Warmer colors represent a higher density of student residences. Cooler colors represent a lower density. The purple icon shows the location of the campus.

Legend

Foley Student Residences



Appendix F. Parent/Caregiver Survey



The following shows a summary of results of a survey sent home to parents and caregiver of children attending the three Foley schools. The graphics and charts summarize responses to questions designed by the National Safe Routes to School Data Collection System.

FOLEY ELEMENTARY

Parent Survey Report: One School in One Data Collection Period

School Name: Foley Elementary School

Set ID: 17786

School Group: Independent School District #51

Month and Year Collected: October 2018

School Enrollment: 0

Date Report Generated: 11/12/2018

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

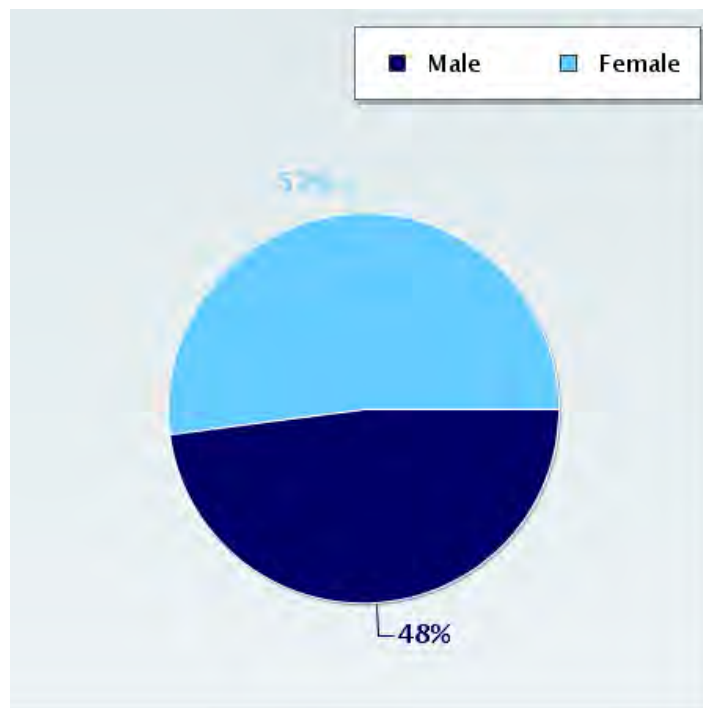
Tags:

Number of Questionnaires Distributed: 0

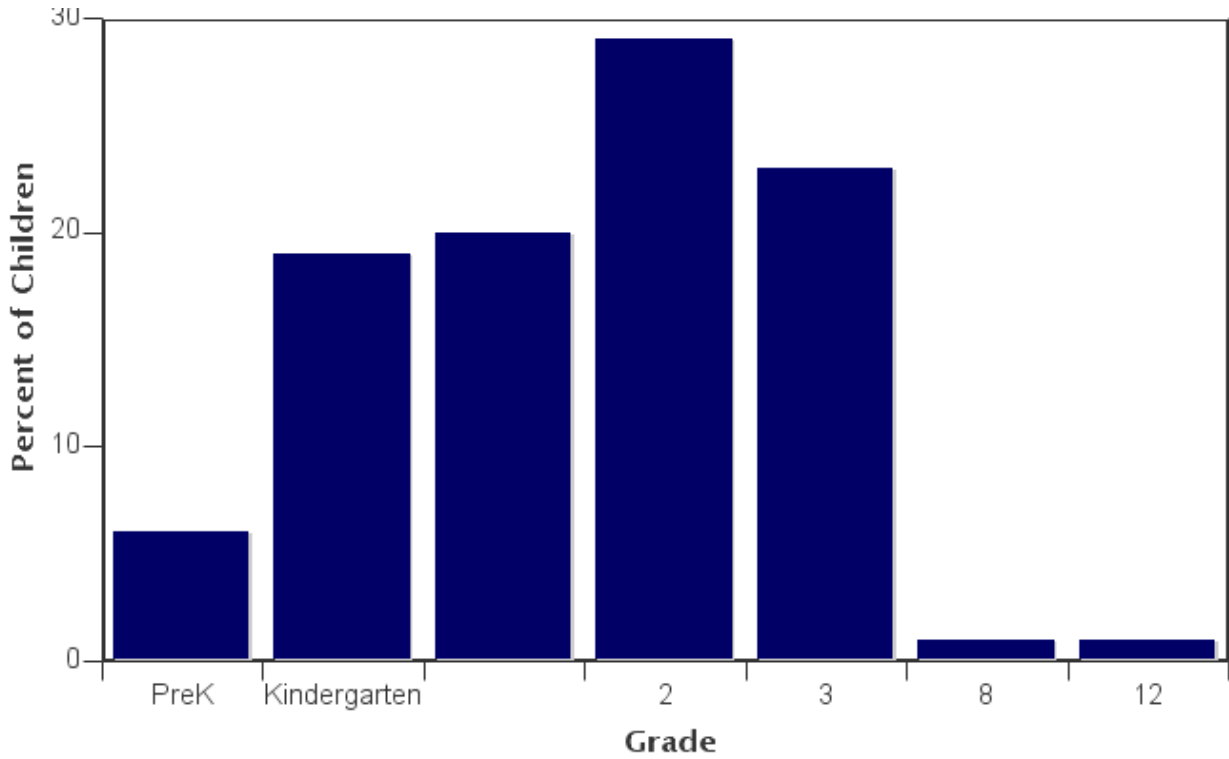
**Number of Questionnaires
Analyzed for Report:** 70

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



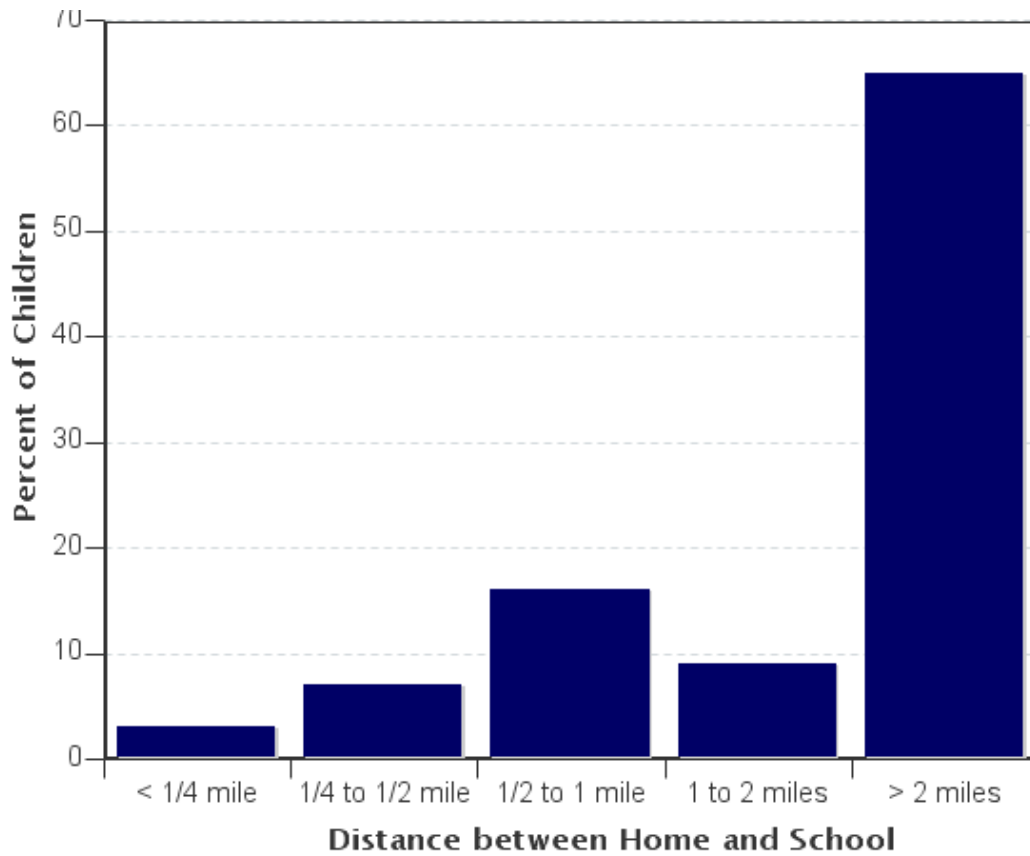
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
PreK	4	6%
Kindergarten	13	19%
1	14	20%
2	20	29%
3	16	23%
8	1	1%
12	1	1%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



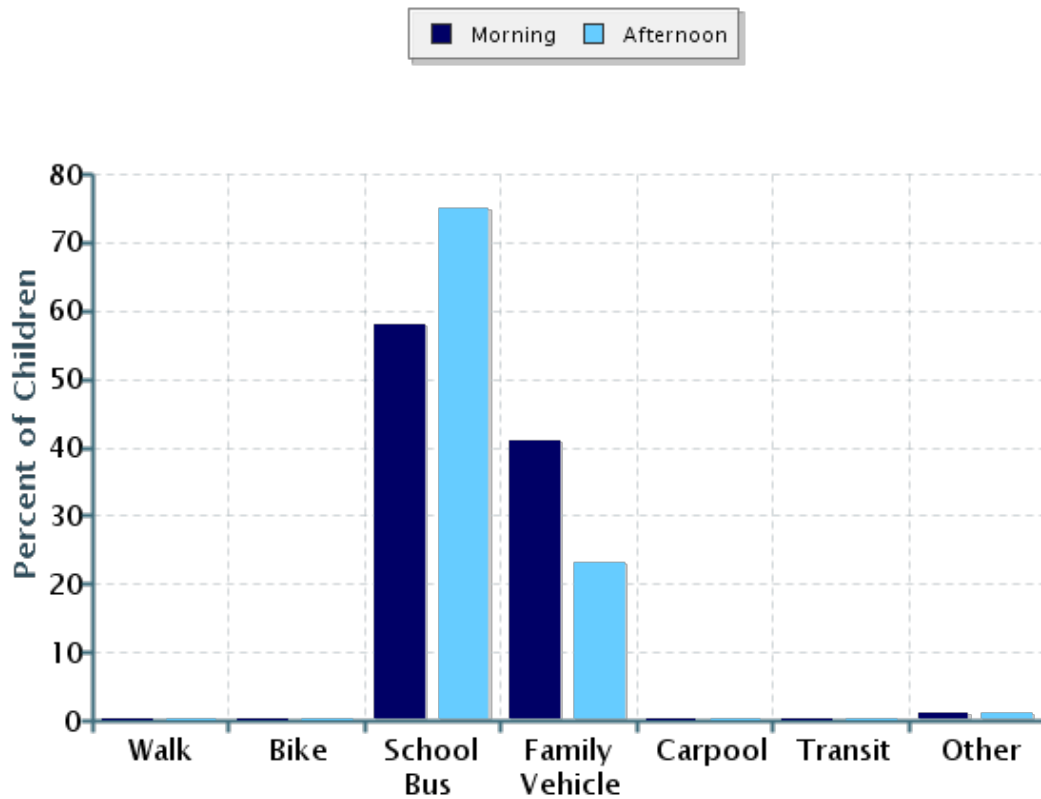
Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	2	3%
1/4 mile up to 1/2 mile	5	7%
1/2 mile up to 1 mile	11	16%
1 mile up to 2 miles	6	9%
More than 2 miles	44	65%

Don't know or No response: 2

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

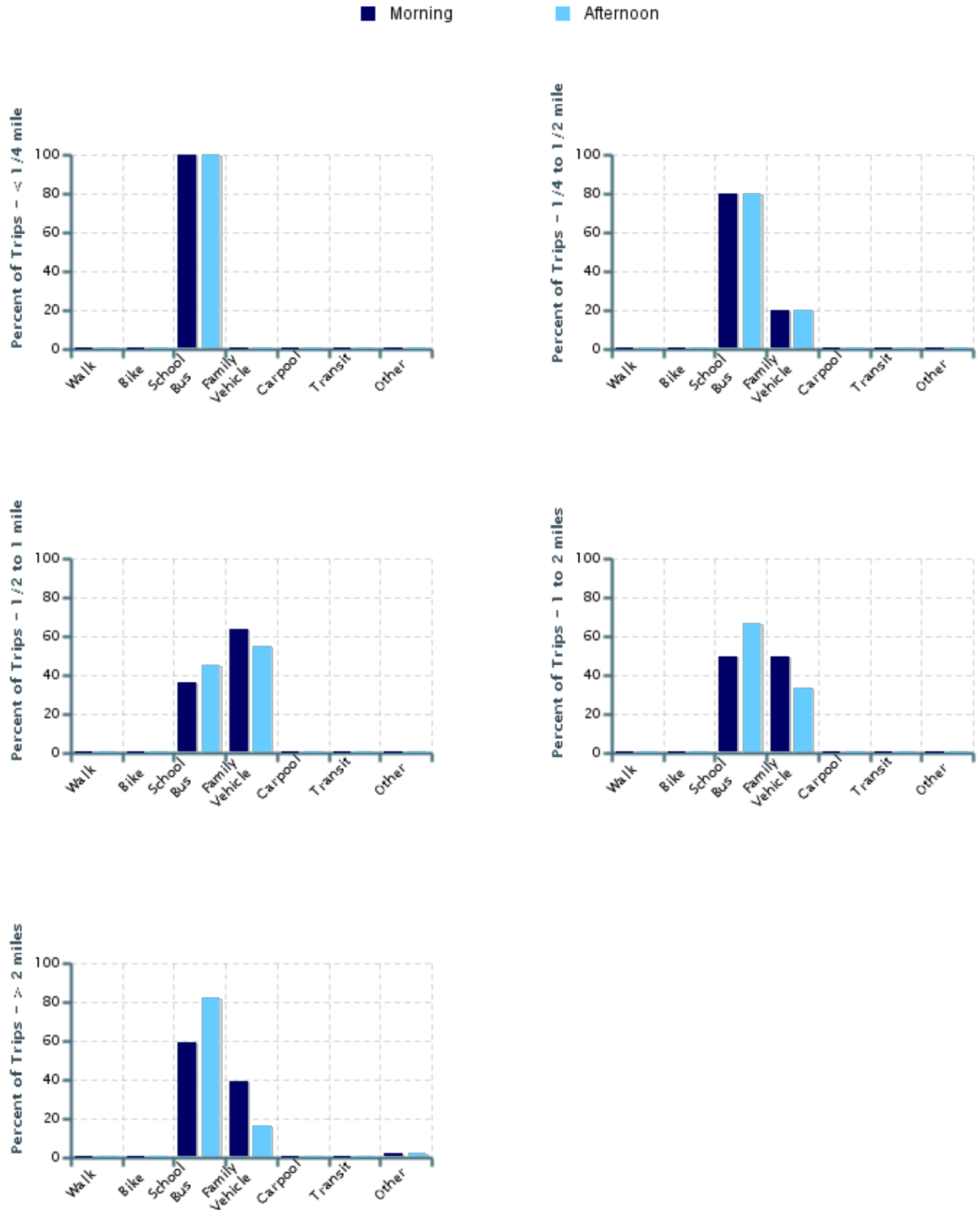
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	69	0%	0%	58%	41%	0%	0%	1%
Afternoon	69	0%	0%	75%	23%	0%	0%	1%

No Response Morning: 1

No Response Afternoon: 1

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	5	0%	0%	80%	20%	0%	0%	0%
1/2 mile up to 1 mile	11	0%	0%	36%	64%	0%	0%	0%
1 mile up to 2 miles	6	0%	0%	50%	50%	0%	0%	0%
More than 2 miles	44	0%	0%	59%	39%	0%	0%	2%

Don't know or No response: 2

Percentages may not total 100% due to rounding.

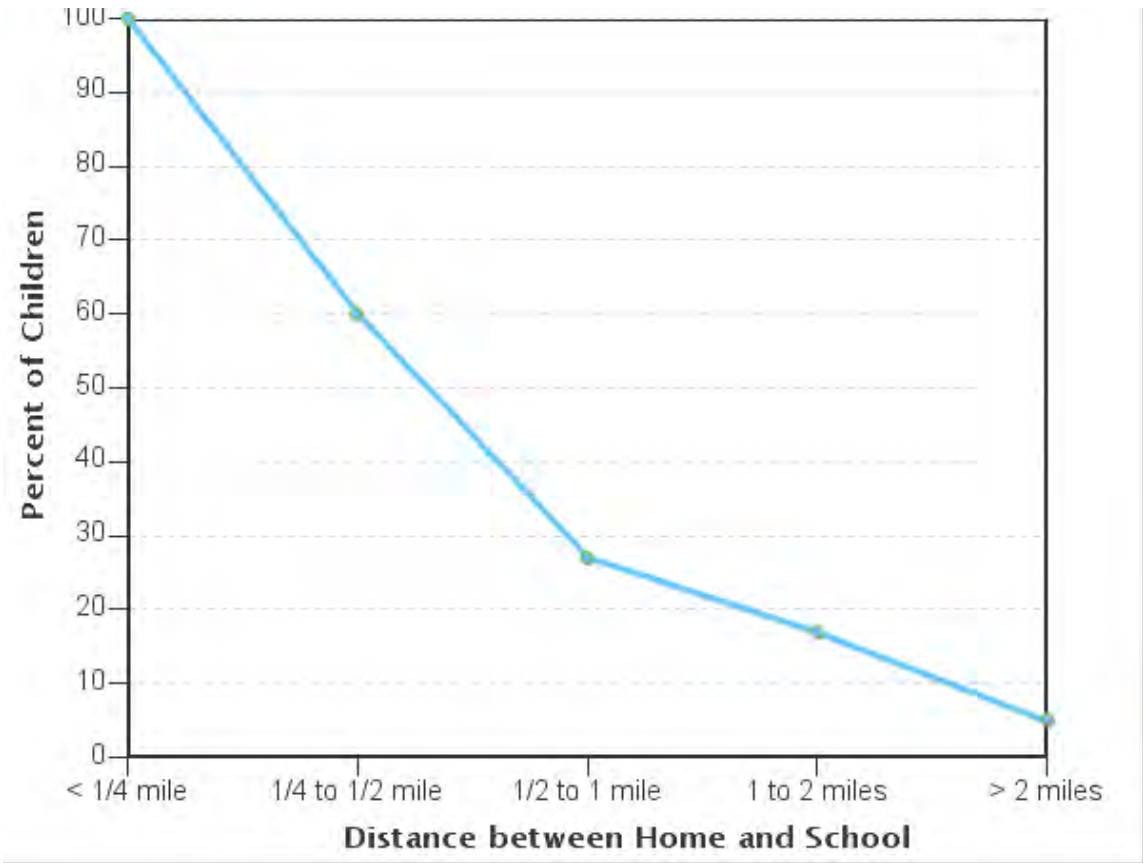
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0%	0%	100%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	5	0%	0%	80%	20%	0%	0%	0%
1/2 mile up to 1 mile	11	0%	0%	45%	55%	0%	0%	0%
1 mile up to 2 miles	6	0%	0%	67%	33%	0%	0%	0%
More than 2 miles	44	0%	0%	82%	16%	0%	0%	2%

Don't know or No response: 2

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

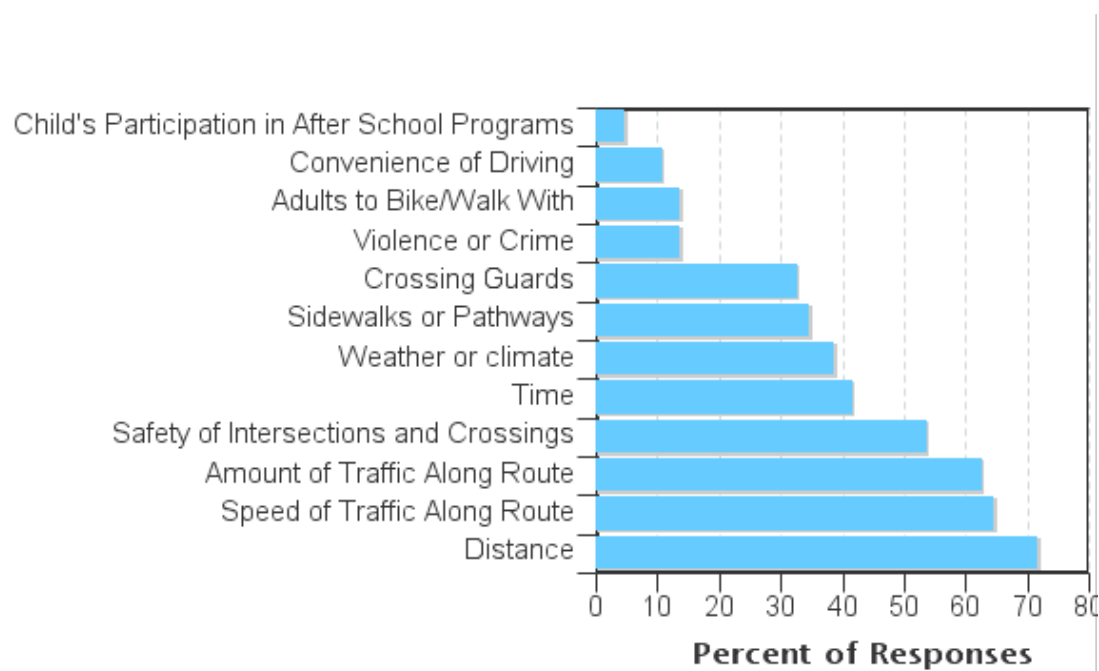


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

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	11	100%	60%	27%	17%	5%
No	56	0%	40%	73%	83%	95%

Don't know or No response: 3
 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

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	72%	0
Speed of Traffic Along Route	65%	0
Amount of Traffic Along Route	63%	0
Safety of Intersections and Crossings	54%	0
Time	42%	0
Weather or climate	39%	0
Sidewalks or Pathways	35%	0
Crossing Guards	33%	0
Violence or Crime	14%	0
Adults to Bike/Walk With	14%	0
Convenience of Driving	11%	0

Child's Participation in After School Programs	5%	0
Number of Respondents per Category	57	0

No response: 13

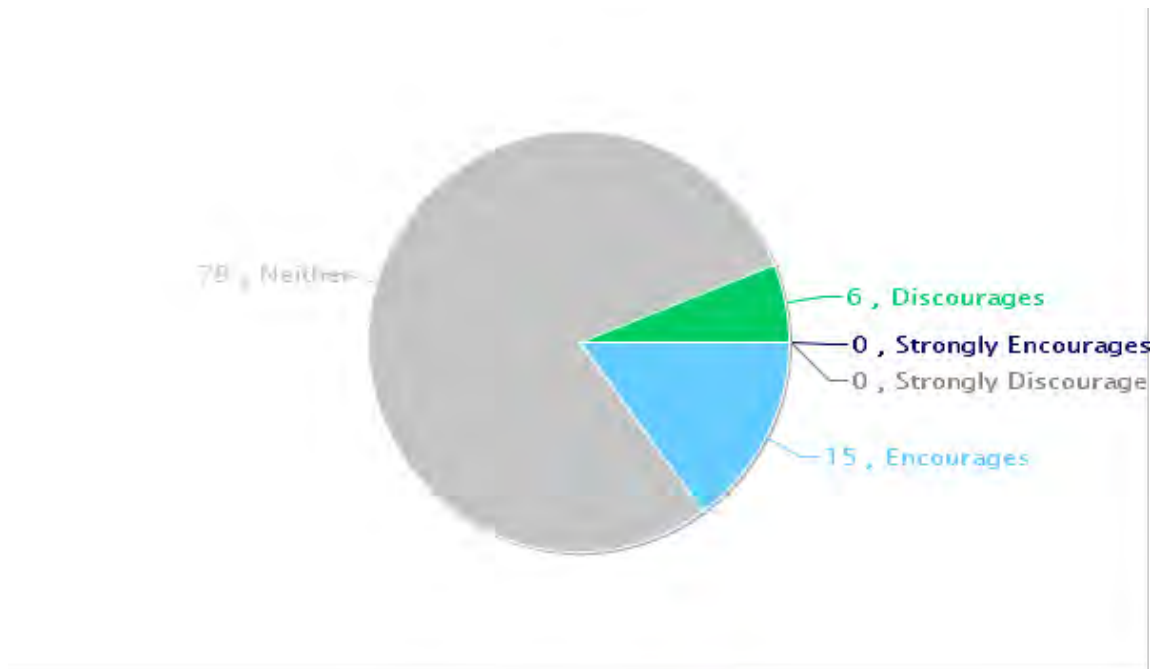
Note:

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

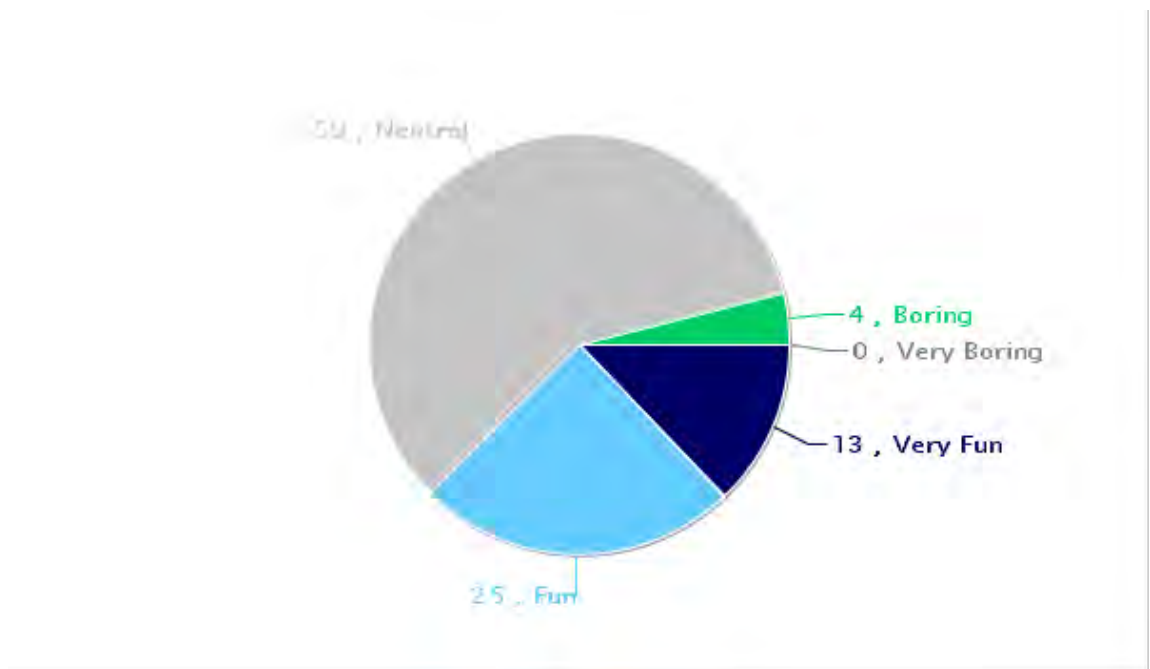
--Each column may sum to > 100% because respondent could select more than issue

--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.

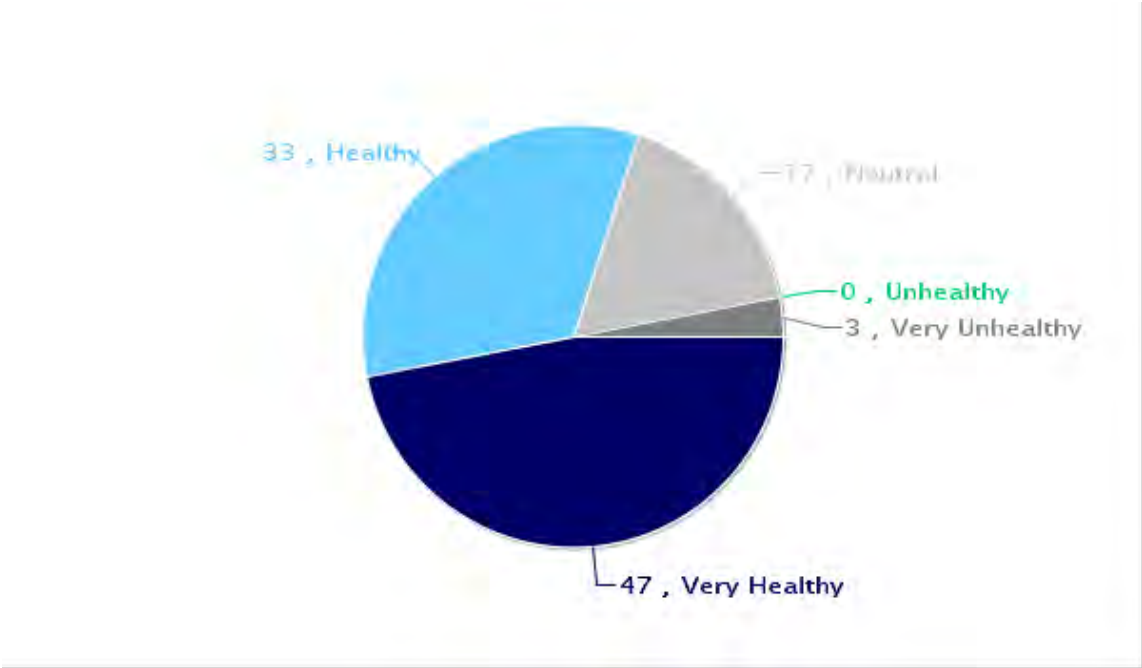
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



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
1625050	I would like to see it speeds decreased on Highway 23 entering the city of Foley, pedestrian crossings marked better, blinking warning lights installed and bike/pedestrian paths put in throughout our city as well.
1625077	I watch students trying to cross HWY 23 daily and traffic usually does NOT stop for them, unless there is Police visible.
1625105	This does not really apply to us as we live at least 12 miles out of Foley and have a child with behavioral issues. Walking would never be appropriate.
1625108	I don't live in town however I work in town and would consider my child walking to my work some day, however after seeing how high school students leave the parking lot and having the main highway to cross I don't trust that people take the time to look for students and slow down. I also am not a trusting person in today's age to let my kids walk home
1625113	Bike path from Ronneby would make a HUGE improvement in safety and allowing for not only kids biking/walking into town/school, but adults as well!
1625115	Live 7 miles from school so too far to walk (even if my child was older). Not safe to bike that far along hwy 25. Not safe due to high vehicle traffic and the chance of violence or crime.
1625130	You college-educated idiots learn how to create surveys
1625170	We have 4 kids. The oldest (8th grade) walks frequently to school. The others are too little to be to school that early as the oldest likes to be in by 7:15-7:30. As the get older I'm happy to allow them to walk if they want and weather is not too crappy. I would prefer there be sidewalks on the school grounds as they have to walk in the road and traffic can be crazy at times.
1625172	Due to distance from school would only allow child to walk to/from school and daycare which is two blocks from school. Only allowed my eldest to walk from school to my work after he was 14 due to unsafe hwy 23 with no light to cross with.
1625178	I feel if we can provide safe crossing at hwy 23, we could limit the need for in-town bus routes.
1625180	We live 10 miles from school so my children will not ride/walk to school, but I think we do need to create safe routes for those who can and want to walk/bike to school.
1625186	We live 6 miles out of town. I would never consider allowing my children to walk/bike to school, ever. Highway 23 is a huge safety concern even if we lived in town. Also, the amount of abductions of children are a high risk to allowing our kids to walk/bike to school daily.
1625190	If Hwy 23 traffic would stop for the kids I would let them walk. I have a 9th and 10th grader I will not allow to walk because of the traffic. Slow down further out of town- lights stating intersection ahead-crosswalk. And buses also use this and do not like to stop for kids- police do not always stop- rarely will they stop- this is when I am with them.
1625202	We live about 8 miles from school, right on Hwy 23. Our kids will never ride a bike or walk to school. Our kids are on the bus for an hour which is REALLY long for a 6 and 7 year old. If you want to change something, shorter bus riding times would be really nice. Thanks.

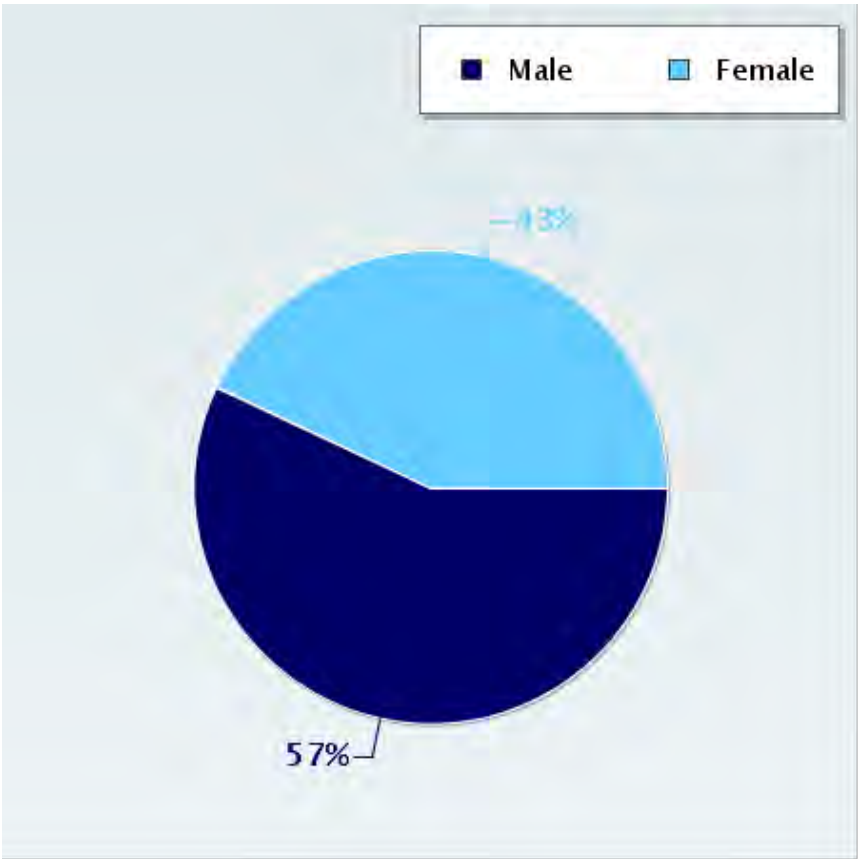
1626206	My children are on the bus for way over an hour. They will never be able to walk or bike to school.
1626567	If we didn't live so far away- walking to school would be something my kids would enjoy.

Parent Survey Report: One School in One Data Collection Period

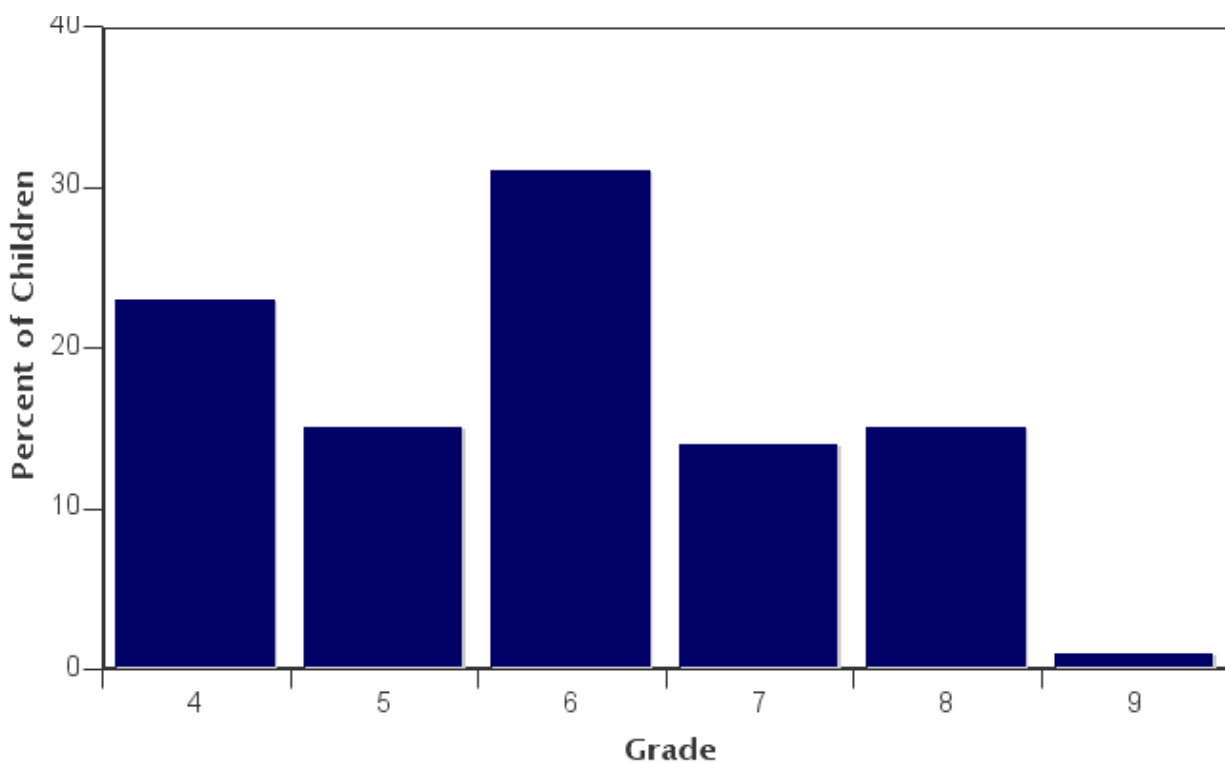
School Name: Foley Intermediate School	Set ID: 17787
School Group: Independent School District #51	Month and Year Collected: October 2018
School Enrollment: 0	Date Report Generated: 11/12/2018
% Range of Students Involved in SRTS: Don't Know	Tags:
Number of Questionnaires Distributed: 0	Number of Questionnaires Analyzed for Report: 73

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



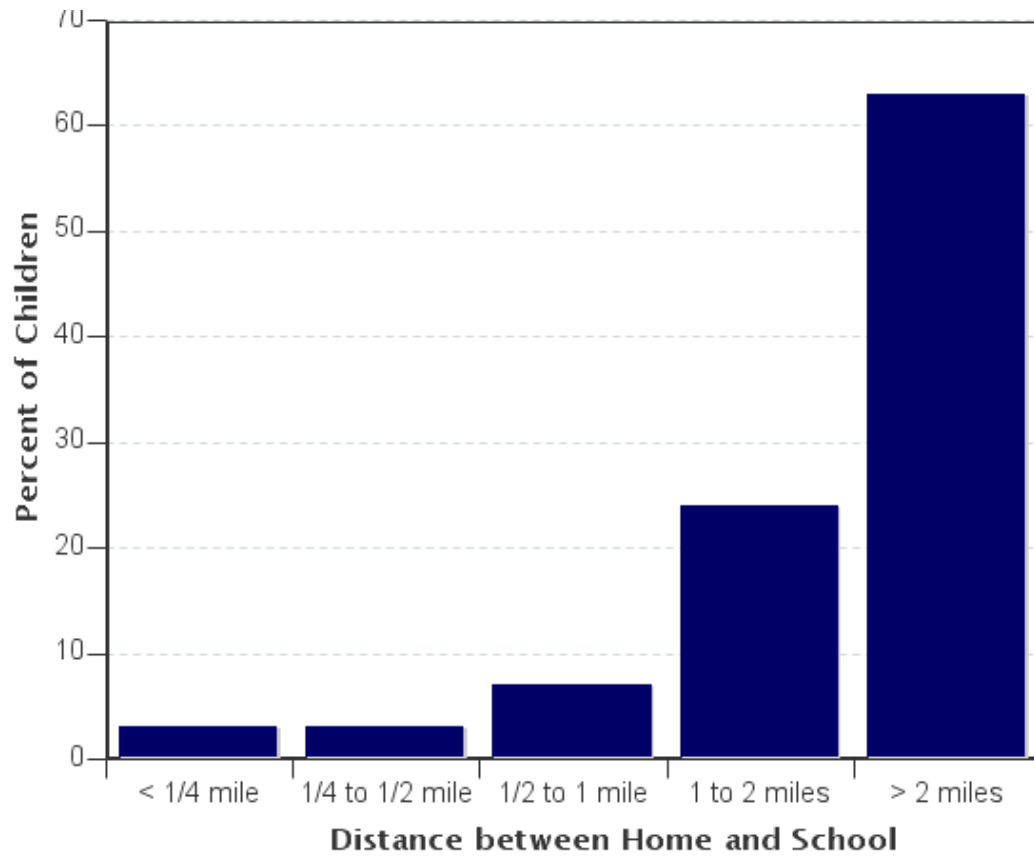
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
4	16	23%
5	11	15%
6	22	31%
7	10	14%
8	11	15%
9	1	1%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



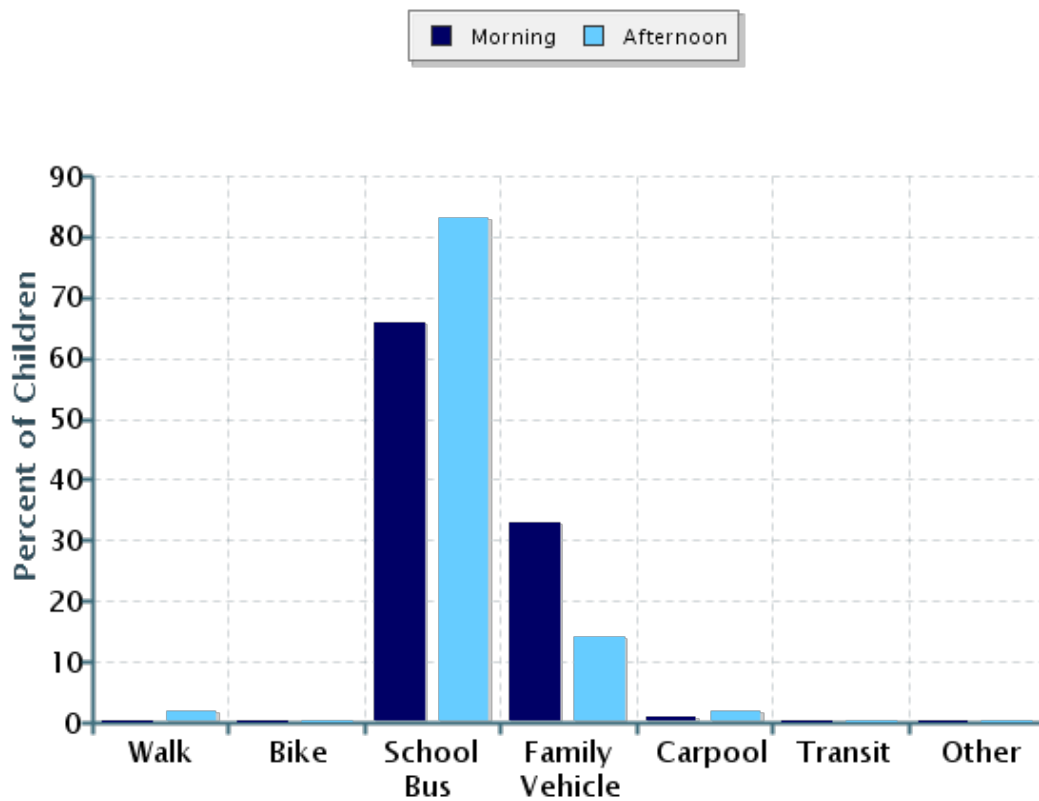
Parent estimate of distance from child's home to school

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	5	7%
1 mile up to 2 miles	16	24%
More than 2 miles	42	63%

Don't know or No response: 6

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

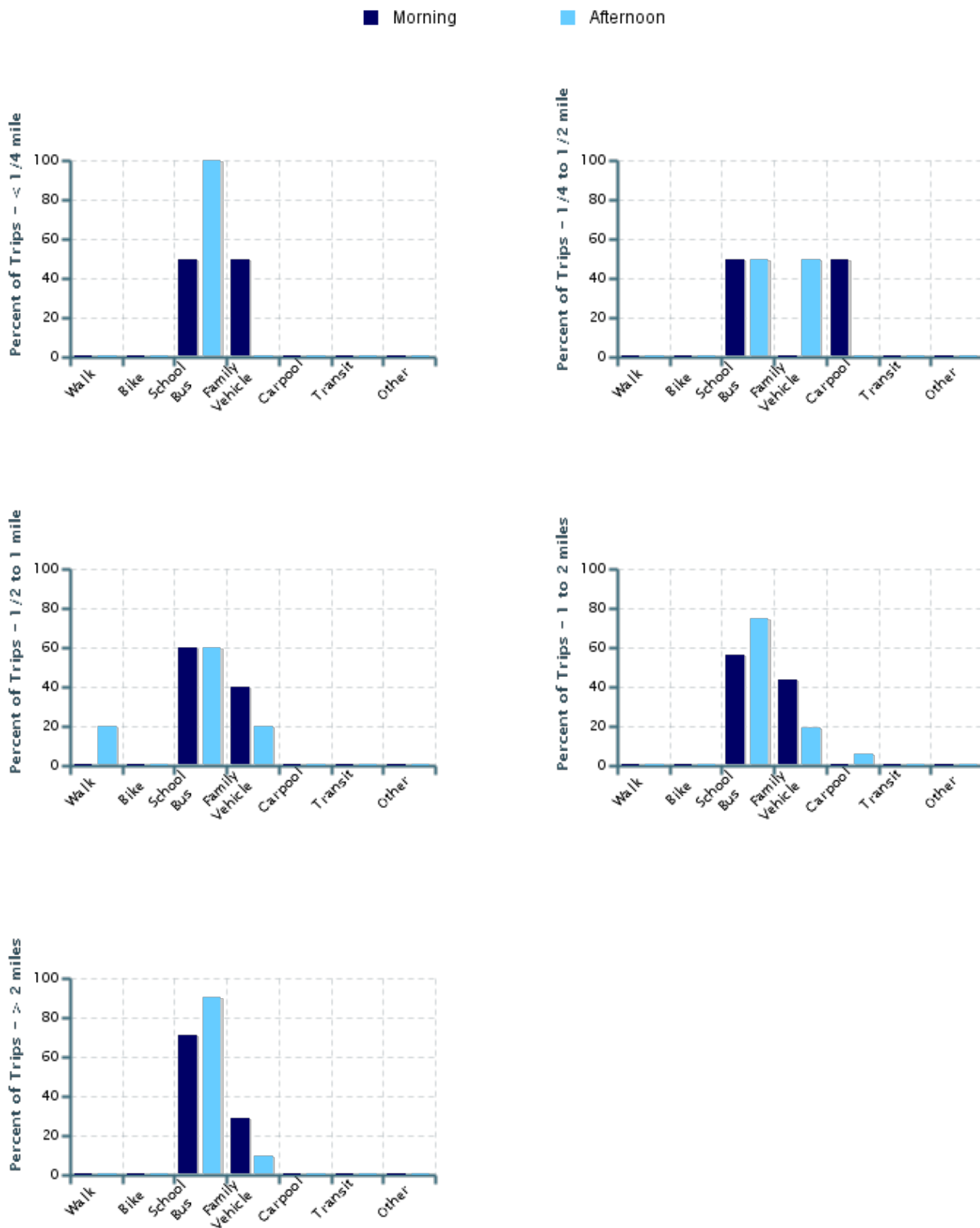
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	67	0%	0%	66%	33%	1%	0%	0%
Afternoon	65	2%	0%	83%	14%	2%	0%	0%

No Response Morning: 6

No Response Afternoon: 8

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%	50%	50%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	50%	0%	50%	0%	0%
1/2 mile up to 1 mile	5	0%	0%	60%	40%	0%	0%	0%
1 mile up to 2 miles	16	0%	0%	56%	44%	0%	0%	0%
More than 2 miles	41	0%	0%	71%	29%	0%	0%	0%

Don't know or No response: 7

Percentages may not total 100% due to rounding.

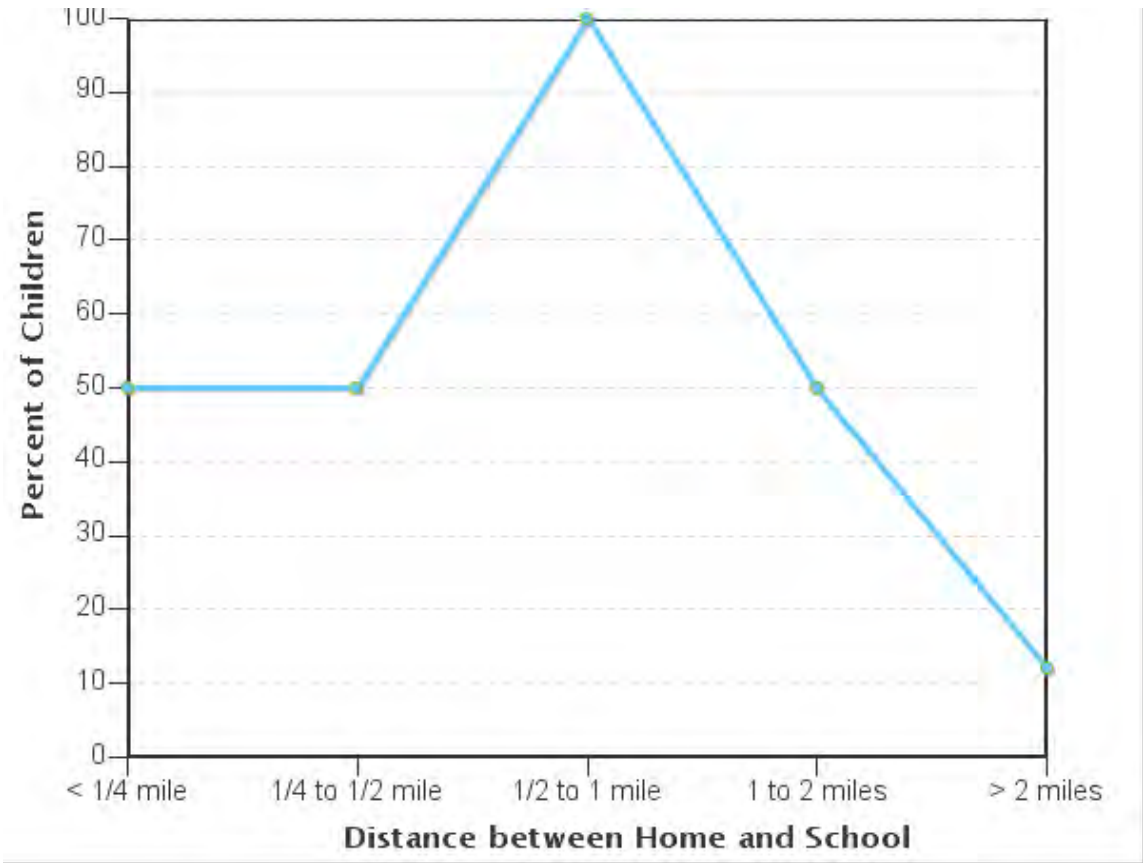
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0%	0%	100%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	50%	50%	0%	0%	0%
1/2 mile up to 1 mile	5	20%	0%	60%	20%	0%	0%	0%
1 mile up to 2 miles	16	0%	0%	75%	19%	6%	0%	0%
More than 2 miles	39	0%	0%	90%	10%	0%	0%	0%

Don't know or No response: 9

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

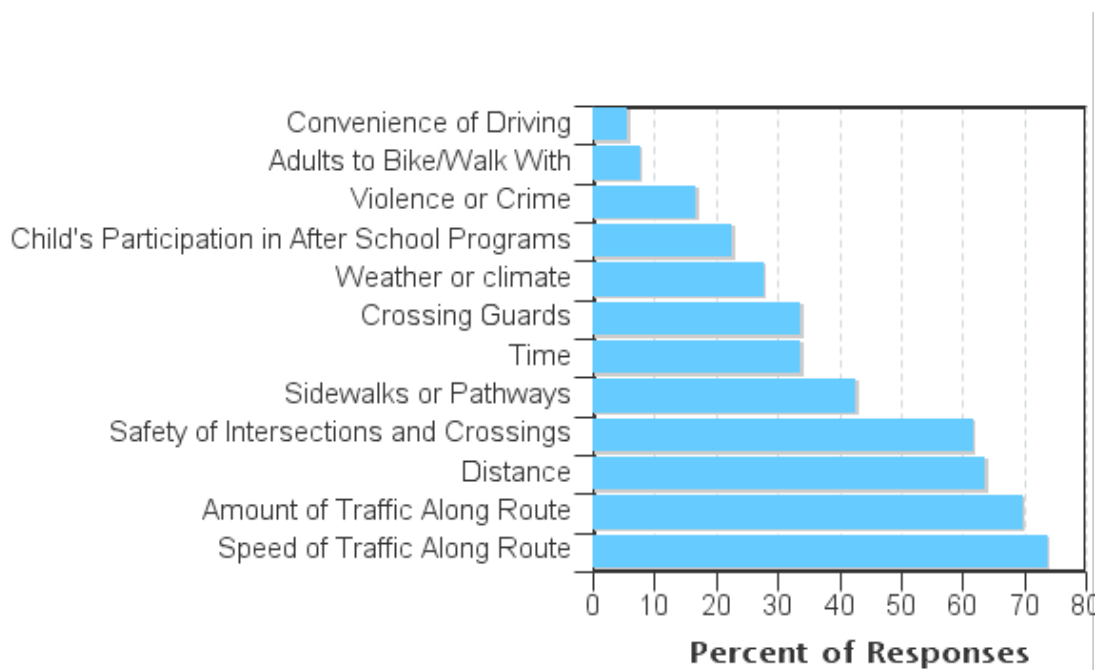


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

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	20	50%	50%	100%	50%	12%
No	47	50%	50%	0%	50%	88%

Don't know or No response: 6
 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

Issue	Child does not walk/bike to school	Child walks/bikes to school
Speed of Traffic Along Route	74%	0
Amount of Traffic Along Route	70%	0
Distance	64%	0
Safety of Intersections and Crossings	62%	0
Sidewalks or Pathways	43%	0
Time	34%	0
Crossing Guards	34%	0
Weather or climate	28%	0
Child's Participation in After School Programs	23%	0
Violence or Crime	17%	0
Adults to Bike/Walk With	8%	0

Convenience of Driving	6%	0
Number of Respondents per Category	53	0

No response: 20

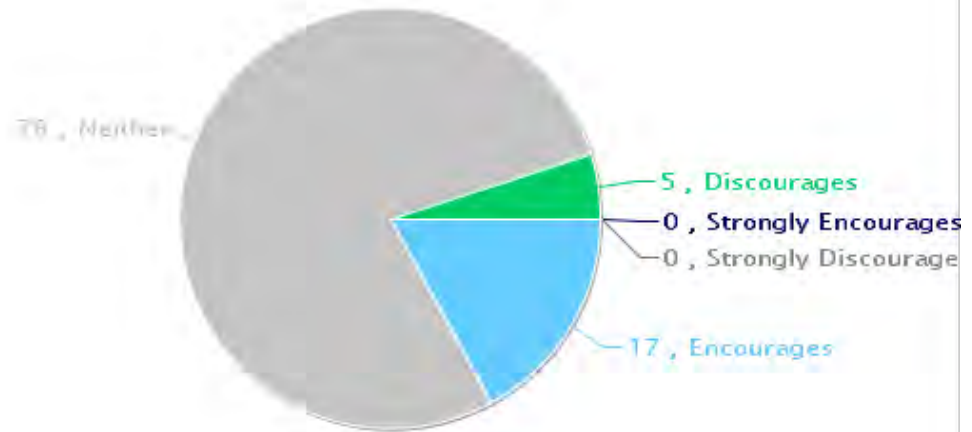
Note:

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

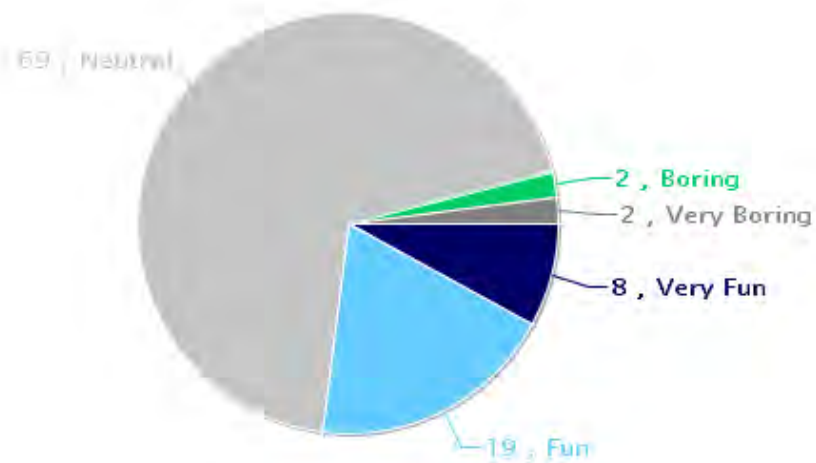
--Each column may sum to > 100% because respondent could select more than issue

--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.

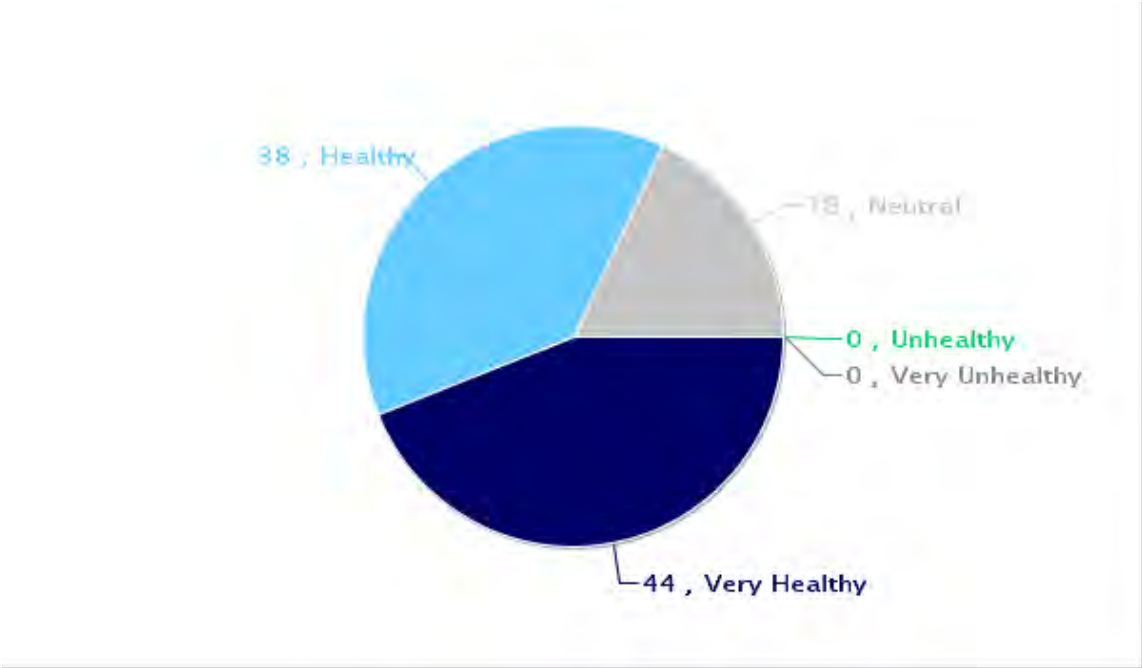
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



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
1625659	We live 9 miles away in the country with only state highways as a route. It is too dangerous to ride bike on the state highway, even for adults. The other options in question 10 do not really apply as the distance and the route it not safe.
1625044	We live off of CR 4 and my daughter would have to travel down Highway 23 most of the way. I highly doubt there will ever be a safe way for her to walk or bike to school.
1625047	Due to the jail being by the school my child will not be walking to school.
1625049	The cars not stopping at crosswalks are my biggest concern! I fell we need officers enforcing pedestrian crosswalks before the issue will get better. Without a serious crackdown, I'm not sure my child will be allowed to bike or walk to school or around town. It shouldn't have to take a child getting hit before it's fixed!
1625052	My children have wanted to bike to their grandparents who live in the assisted living facility in town, however I have not allowed it due to the traffic concern and lack of awareness by drivers on the highway 23 intersection. Many times cars do not stop at designated crosswalks when there are pedestrians waiting to cross. This factor alone is a major concern and reason my children are not allowed to cross the street.
1625053	It's simply too far for my kids to commute by bike or walking. They would also need to travel on highway 23 for 10+ miles. I ridden on that road with my 15 year old. We are avid bike rides in our family, but 23 is not fun to ride on. Too much traffic.
1625055	With the intersections and amount of traffic I would never allow my child to bike or walk to school. Take that along with psycho's who are taking kids and this just isn't a consideration for us. If we lived by the school this may be a lot different.
1625078	HWY-23 is the main reason I don't let my kids walk to school.
1625079	I don't let my kids walk because of HWY 23.
1625084	I would love for my child to take part in summer activities at school too but not an option because of safety from our house to school.
1625092	Not sure why my education level matters
1625101	We do not live in town. My children ride the bus for an hour to and from school.
1625107	We live too far for walking or biking
1625126	The highway is dangerous to cross. No one acknowledges the crosswalks. It is even worse to travel along the highway due to a lack of sidewalks for children to get to the grocery store or small food strip mall.
1625128	The questions in this survey are silly. Of course parents would like their kids to be able to get to school safely. Safe bus, walk, and bike ride.
1625629	If we lived in town I wouldn't have a problem with my kids either walking or biking to school each day. But unfortunately we live about 12 miles away from school

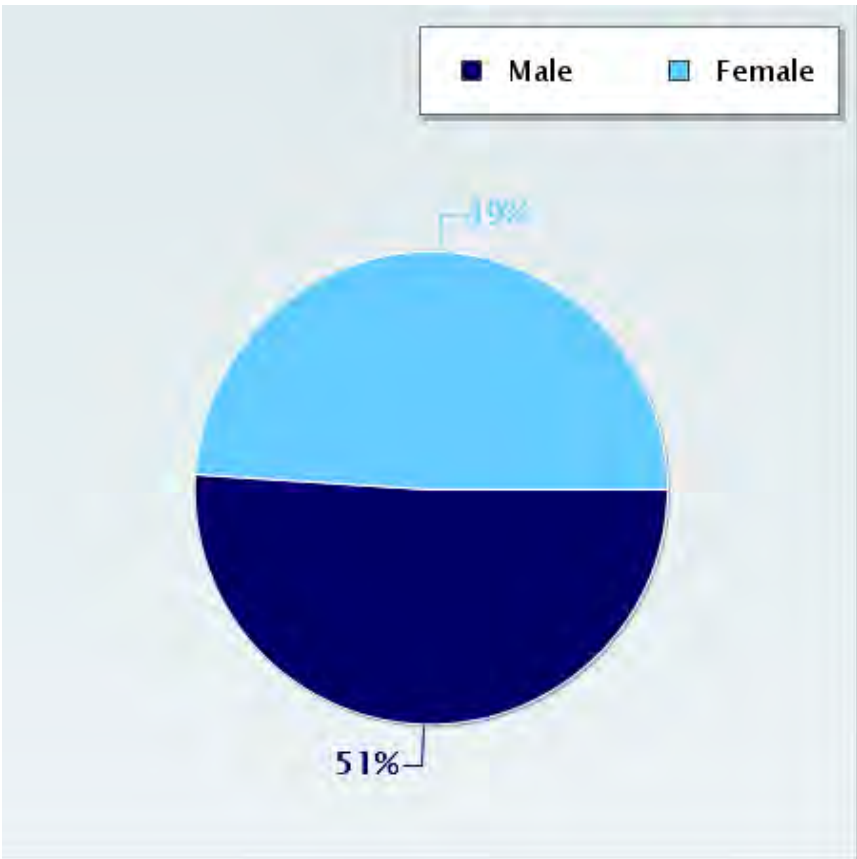
1625129	My son has been asking to walk or bike to and from school for the last 2 years. Due to the speed of cars and trucks on hwy 23 8 have not allowed him to do so. Not safe.... speed limit on hwy 23 through Foley was fast enough and should have never been raised.
1625149	Crossing Hwy 23 is terribly dangerous, no matter the time of day. There have been some changes made in an attempt to make it safer, but most drivers do not pay attention to the changes.
1625154	There is a lot of traffic on all sides of the school that increases the chance of an accident whether children are walking or driving. They have to cross a major highway or heavy traffic no matter which direction they come from.
1625155	There is a lot of traffic on all sides of the school that increases the chance of an accident whether children are walking or driving. They have to cross a major highways or heavy traffic no matter which direction they come from. Having a round about may slow traffic coming into town but will not provide increase safety getting to the school. And doesnt make drivers stop for kids waiting to cross the road...whether it hwy 23, norman ave, Fieldhouse road, pen street.
1625156	If bridges can't be built over the road, then ideas that we believe actually help are flashing lights (like the one by St. Cloud public library), speed feedback signs to indicate speed, law enforcement, crossing guards, safer pathways.
1625200	I would trust my daughter to get herself to and from school this way, but I DO NOT trust the drivers. Most of them do not stop for cross walks or pay attention to speed when driving through town and rarely do I see anyone pulled over by a police officer for this no matter how close they may be to the actual police station. I will not put my daughter's safety at risk to be "healthy." We bike and walk as a family after school together.
1625216	My children would probably walk/bike more often but crossing hwy 23 isnt very safe. Would be great to have better pedestrian crossings where traffic actually has to stop at a crossing light or something. An overhead bike path/walking bridge would be amazing.
1625228	We live 12 miles from school so walking or biking will never be an option for my children
1625241	The crosswalks across 23 are not lit, it is very difficult to see someone crossing when it is dark- this is a accident waiting to happen!
1625248	My kids ride their bikes to school 4 days a week in the summer for school/sports activities. The speed at which cars are traveling is well over the posted limits and needs to be lowered. With no pedestrian paths, my kids have no other option than to ride with the highway traffic.

Parent Survey Report: One School in One Data Collection Period

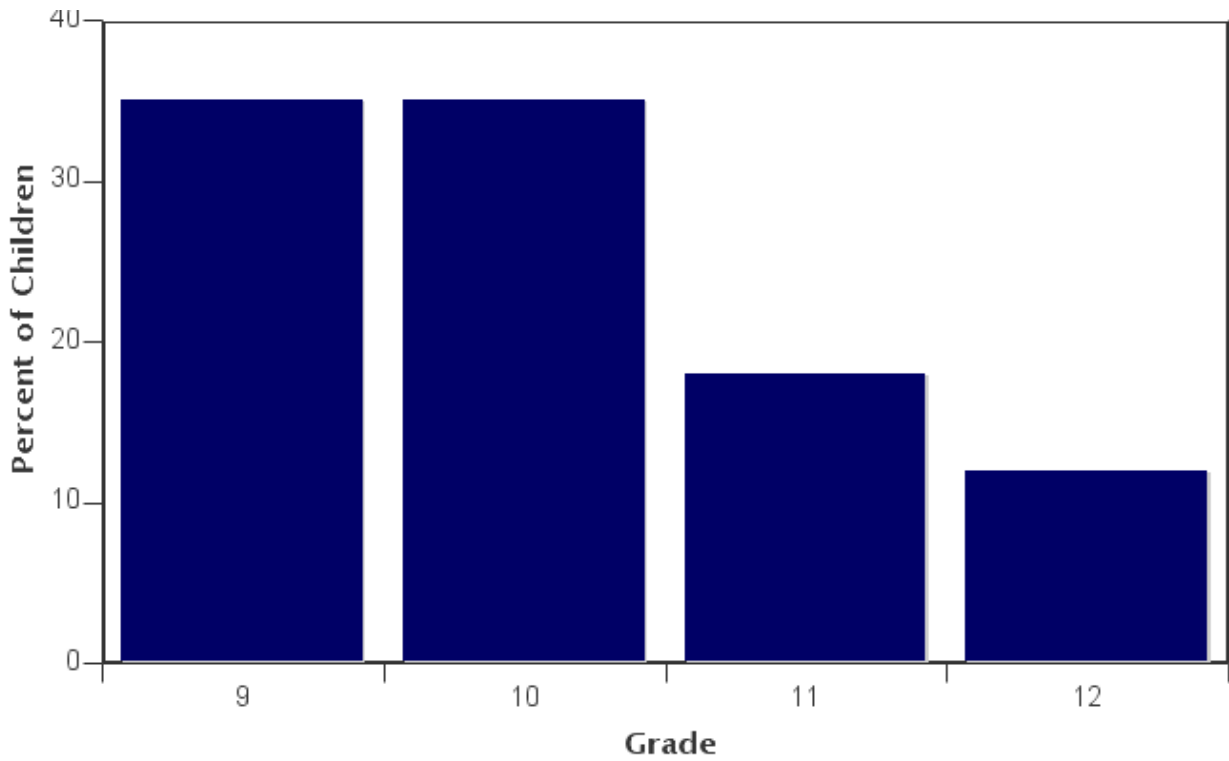
School Name: Foley Senior High School	Set ID: 17788
School Group: Independent School District #51	Month and Year Collected: October 2018
School Enrollment: 0	Date Report Generated: 11/12/2018
% Range of Students Involved in SRTS: Don't Know	Tags:
Number of Questionnaires Distributed: 0	Number of Questionnaires Analyzed for Report: 52

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



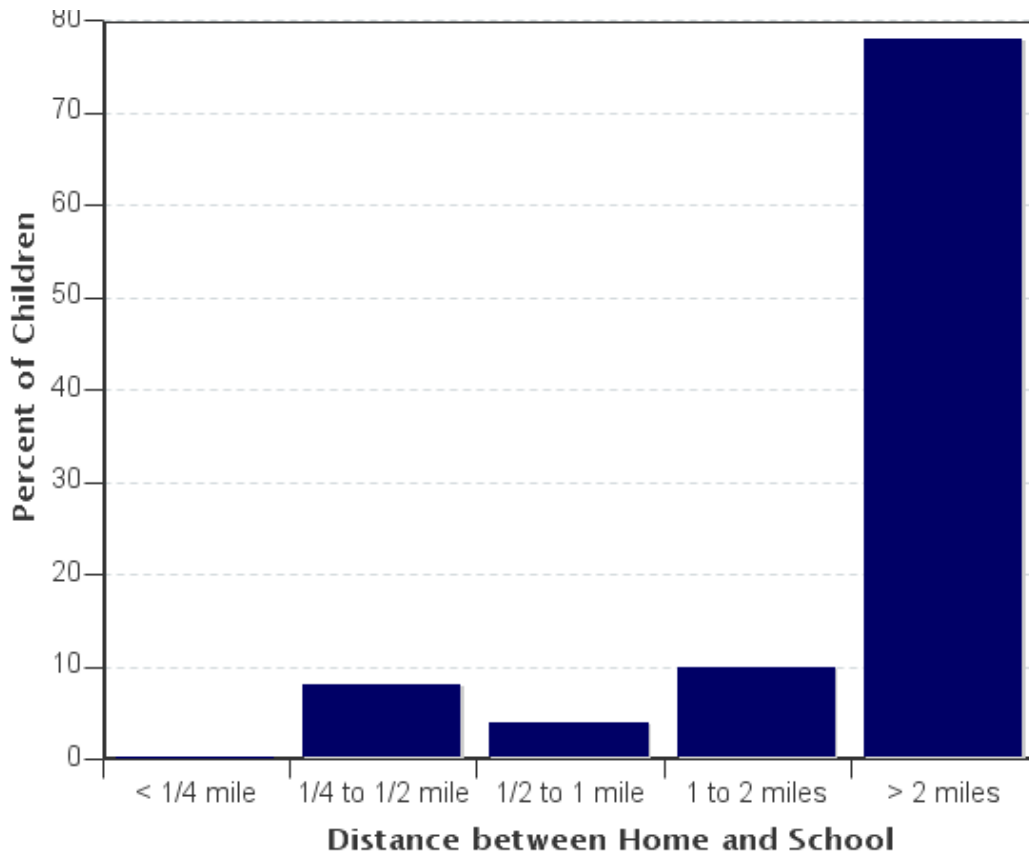
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
9	18	35%
10	18	35%
11	9	18%
12	6	12%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



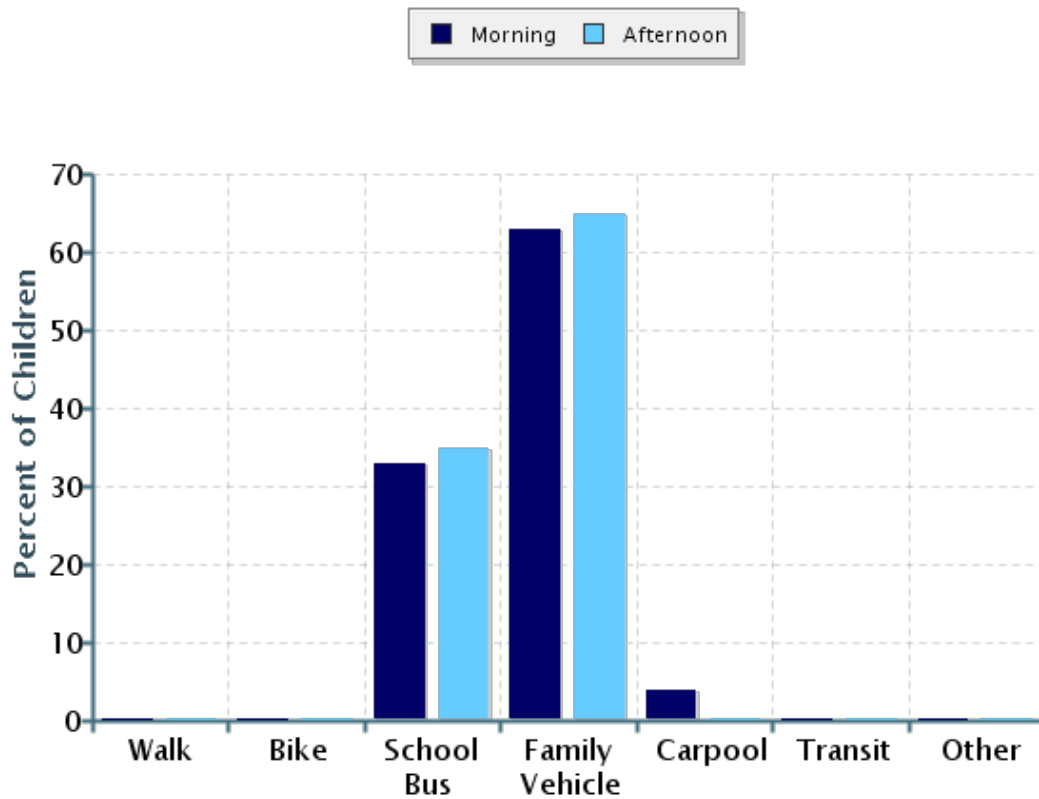
Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	0	0%
1/4 mile up to 1/2 mile	4	8%
1/2 mile up to 1 mile	2	4%
1 mile up to 2 miles	5	10%
More than 2 miles	39	78%

Don't know or No response: 2

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

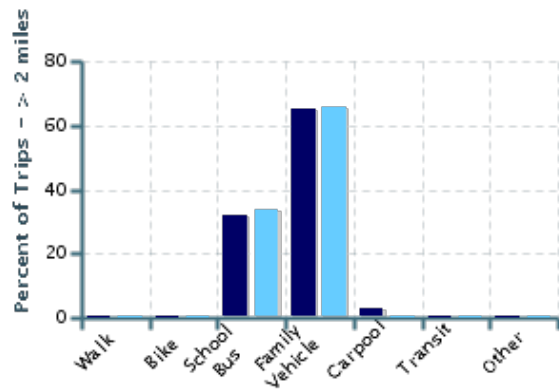
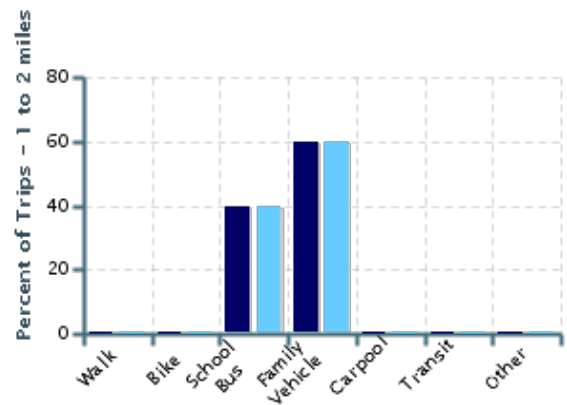
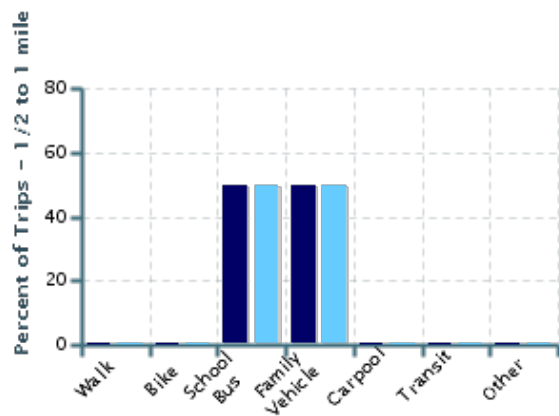
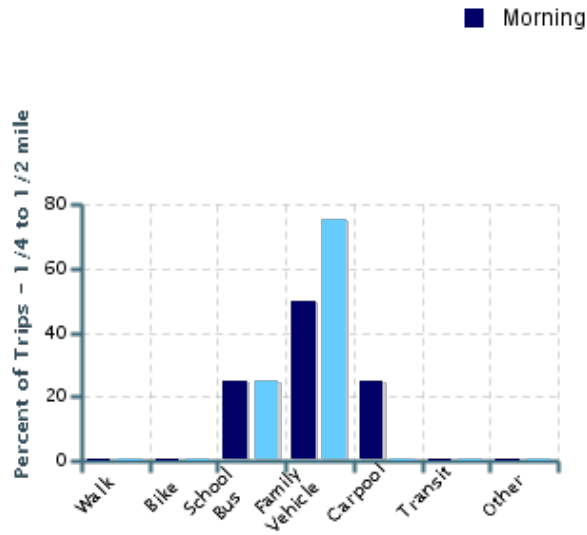
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	48	0%	0%	33%	63%	4%	0%	0%
Afternoon	49	0%	0%	35%	65%	0%	0%	0%

No Response Morning: 4

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	0	0%	0%	0%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	4	0%	0%	25%	50%	25%	0%	0%
1/2 mile up to 1 mile	2	0%	0%	50%	50%	0%	0%	0%
1 mile up to 2 miles	5	0%	0%	40%	60%	0%	0%	0%
More than 2 miles	37	0%	0%	32%	65%	3%	0%	0%

Don't know or No response: 4

Percentages may not total 100% due to rounding.

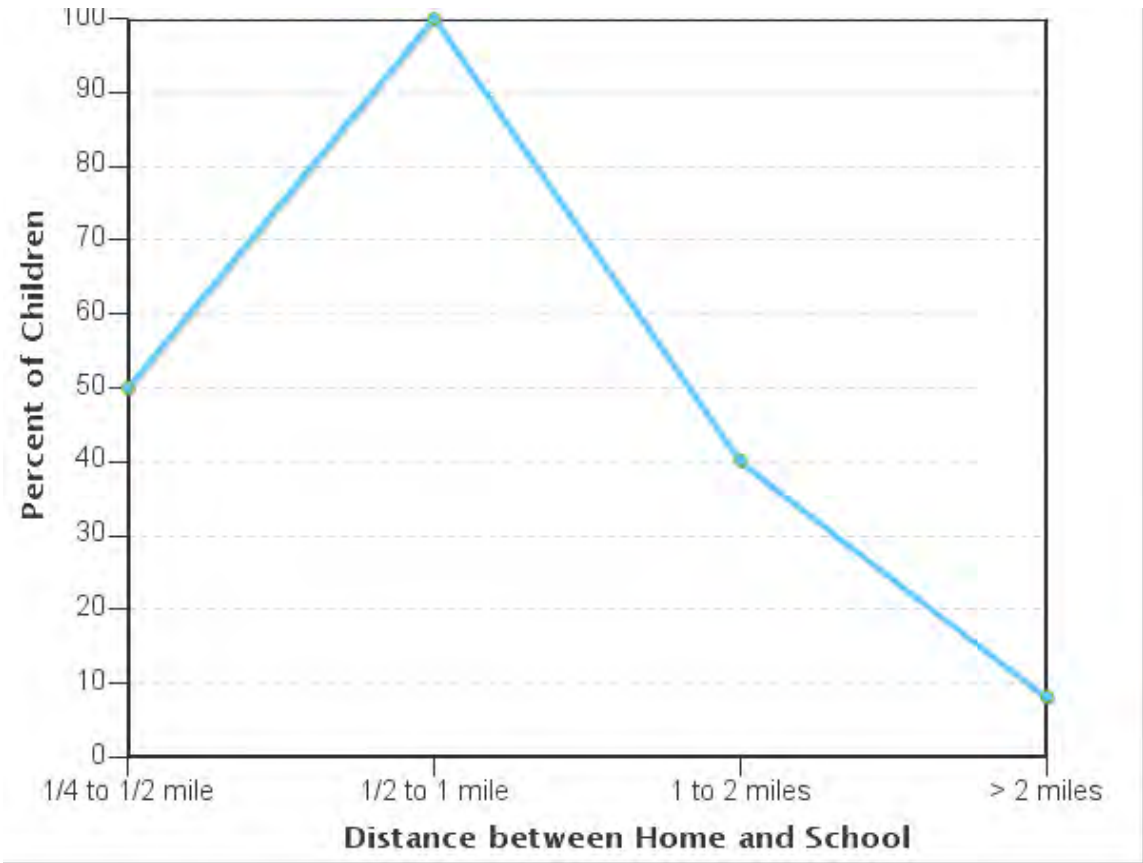
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	0	0%	0%	0%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	4	0%	0%	25%	75%	0%	0%	0%
1/2 mile up to 1 mile	2	0%	0%	50%	50%	0%	0%	0%
1 mile up to 2 miles	5	0%	0%	40%	60%	0%	0%	0%
More than 2 miles	38	0%	0%	34%	66%	0%	0%	0%

Don't know or No response: 3

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

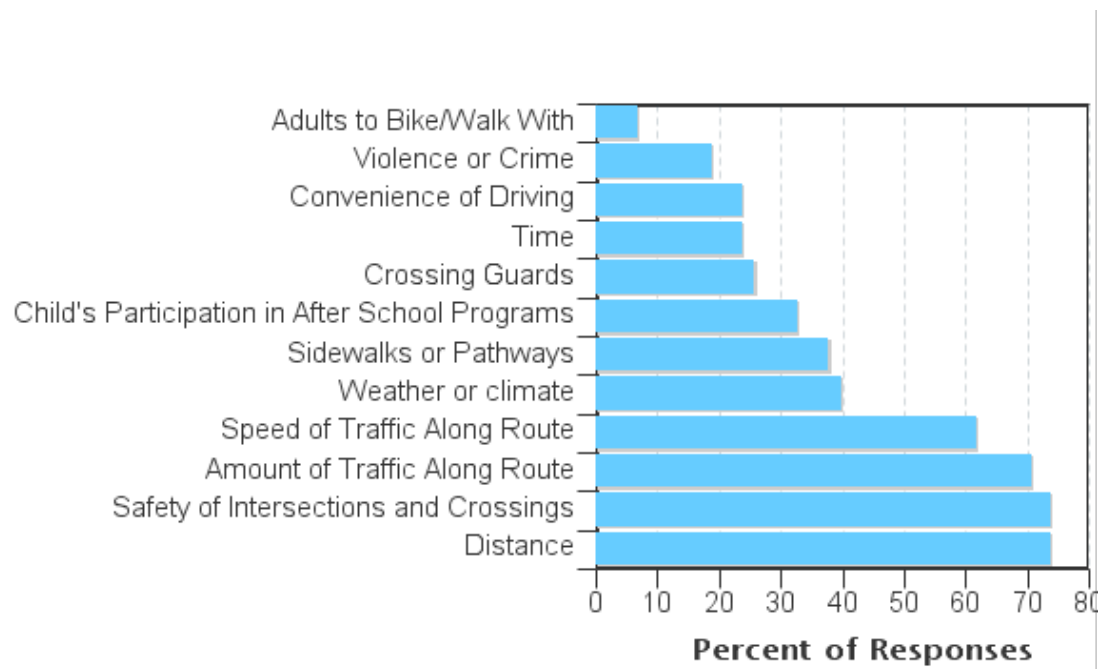


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

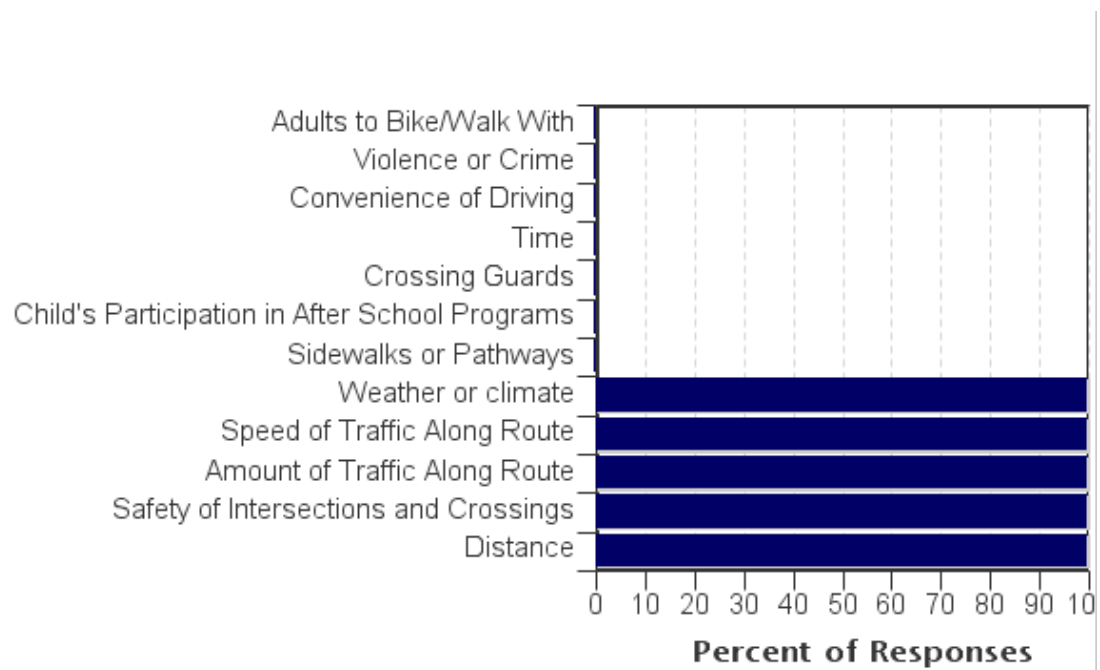
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	9	0%	50%	100%	40%	8%
No	40	0%	50%	0%	60%	92%

Don't know or No response: 3
 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	74%	100%
Safety of Intersections and Crossings	74%	100%
Amount of Traffic Along Route	71%	100%
Speed of Traffic Along Route	62%	100%
Weather or climate	40%	100%
Sidewalks or Pathways	38%	0%
Child's Participation in After School Programs	33%	0%
Crossing Guards	26%	0%
Time	24%	0%
Convenience of Driving	24%	0%
Violence or Crime	19%	0%
Adults to Bike/Walk With	7%	0%
Number of Respondents per Category	42	1

No response: 9

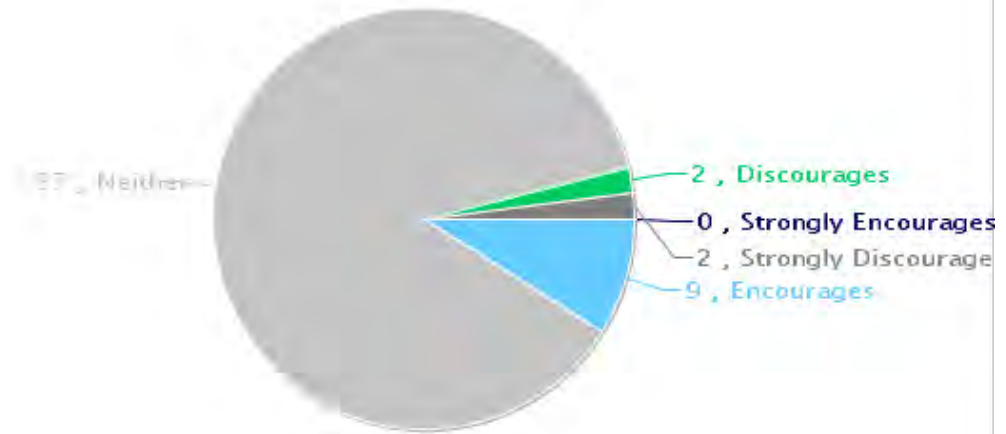
Note:

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

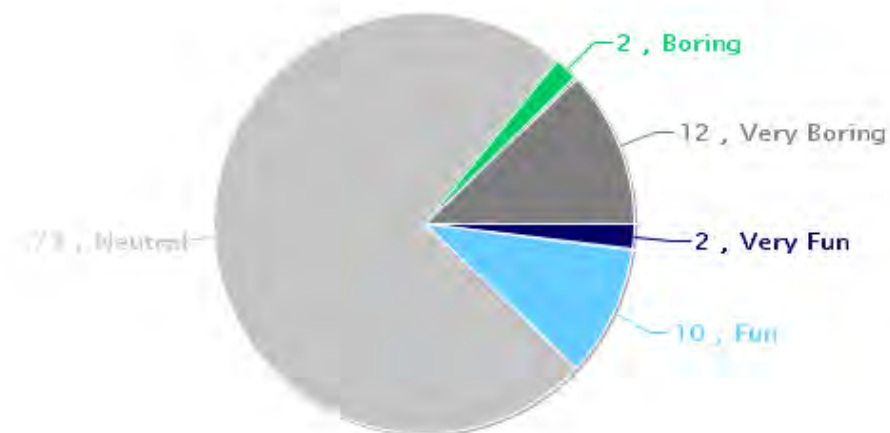
--Each column may sum to > 100% because respondent could select more than issue

--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.

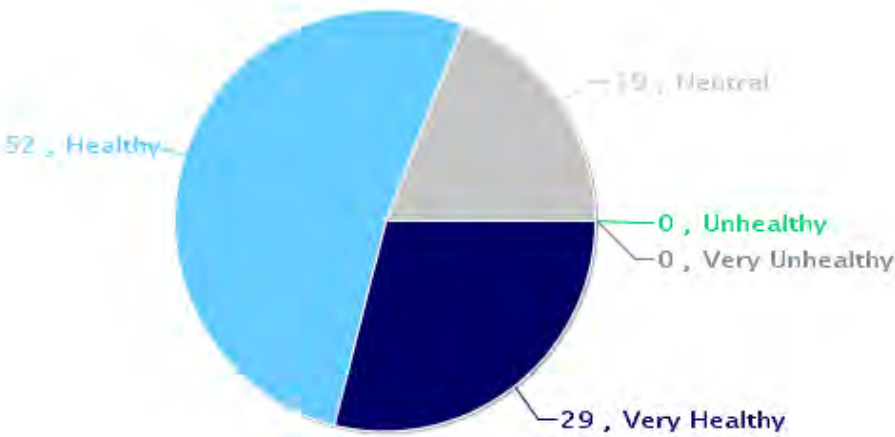
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



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
1625238	My home is 15 miles from school so biking is not really an option. However, I feel strongly that there has to be a way for children to cross Highway 23 in order to get to school. The current situation is simply unsafe. Even if I lived in Foley, I would not let my kids (especially intermediate age child) cross that street particularly at busy times because of safety. I would really like to see a crossing bridge like the one in St. Cloud across Highway 23 between Lincoln and Wilson Avenues. While I realize they are expensive, traffic is very strong in Foley and we certainly don't want to see anyone killed.
1625242	The crossings on 23 are not lit, it is very hard to see people crossing in the dark- it is very dangerous!
1625278	While encouraging walking/biking as a "green" initiative is a good idea, safety of all of our students needs to be the prime concern. There needs to be a better way to manage traffic to/from the school off/on of highway 23. Whether that is a roundabout or a light-controlled intersection, it needs to be addressed sooner rather than later.
1625069	My boys would be really healthy but would get less sleep since we live 9 miles away. As a person who drives in Foley in the mornings and have had kids on bikes and walking jump out in front of me or riding along the sides of the road not paying attention or worse looking at there phone I would worry about more kids doing it.
1625071	In my opinion Crossing Hwy 23 is too dangerous without a crosswalk or stoplight. It has even been very daunting for us in cars. It makes me uncomfortable seeing student drivers after school.
1625072	I would love to see some kind of safety crossing, round about, or something at the intersection crossing highway 23 near Casey's and the crossing near Jimmy's Pizza and he entrance to the small strip area.
1625075	Crossing hwy 23 is biggest obstacle. Walking path needs to go over or under and not rely on traffic to stop.
1625089	We live 9 miles from school, so walking and or biking is not an option.
1625091	Due to the distance we live from school I don't feel that my answers are good representation. It would be nice to see more patrolling after school and in parking lots
1625099	If the was crossing guards at the highway cross walks I would let me kid walk or ride bike that highway is to busy to cross and no one stops
1625102	My child rides the bus everyday. She is on the bus for an hour to and from school. We do not live in the city limits.
1625132	I live in the Popple Creek area - Walking/Biking will never be an option
1625141	If there was a designated bike path on the roads into Foley from out in the country I would feel more comfortable letting my child ride a bike into town. The shoulders with gravel are just too dangerous without enough room between fast moving vehicles and people biking or walking.
1625151	It's difficult for children to safely cross hwy 23 or 25, after school between activities the kids would love to go to subway or other restaurants but walking on the highway is the only option and is unsafe. Crossing hwy 23 seems unsafe, whether its during the day to go to the dentist or to get to any other business. Traffic doesnt seem to stop.

1625229	My major concern of a parent of soon to be two high school drivers is the amount of traffic on hwy 23 that has to be crossed if you enter the school from any area other than a north route. Walking and biking to school from a majority of the city of Foley is a concern simply because of the traffic.
1626146	We just live to far out for my kids to do this. We are 12 miles from Foley.
1626900	My child has a longer distance than some to get to school so these questions didn't really pertain well for our situation.

Appendix G. Student Hand Tally

The following pages show summaries of a hand tally of student transportation behavior at each of the three schools. In the fall of 2018, students at each school were asked how they traveled to and from school on three midweek school days. This report is a direct export from the National Safe Routes to School Data Collection System, which processed the tallies and generated this report.

FOLEY ELEMENTARY

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

School Name: Foley Elementary School

Set ID: 27066

School Group: Independent School District #51

Month and Year Collected: September 2018

School Enrollment: 0

Date Report Generated: 11/12/2018

% of Students reached by SRTS activities:

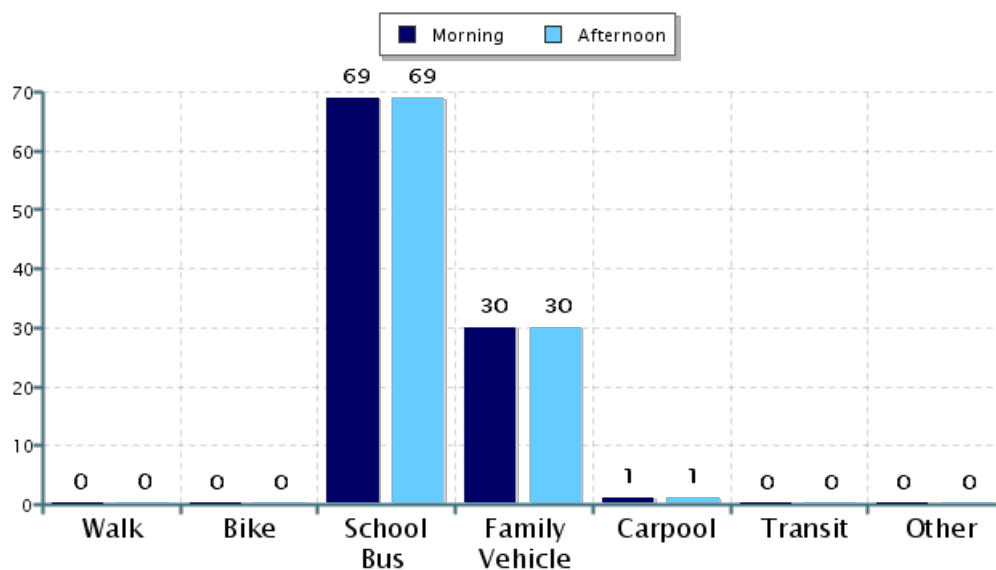
Tags:

Number of Classrooms

Included in Report: 25

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

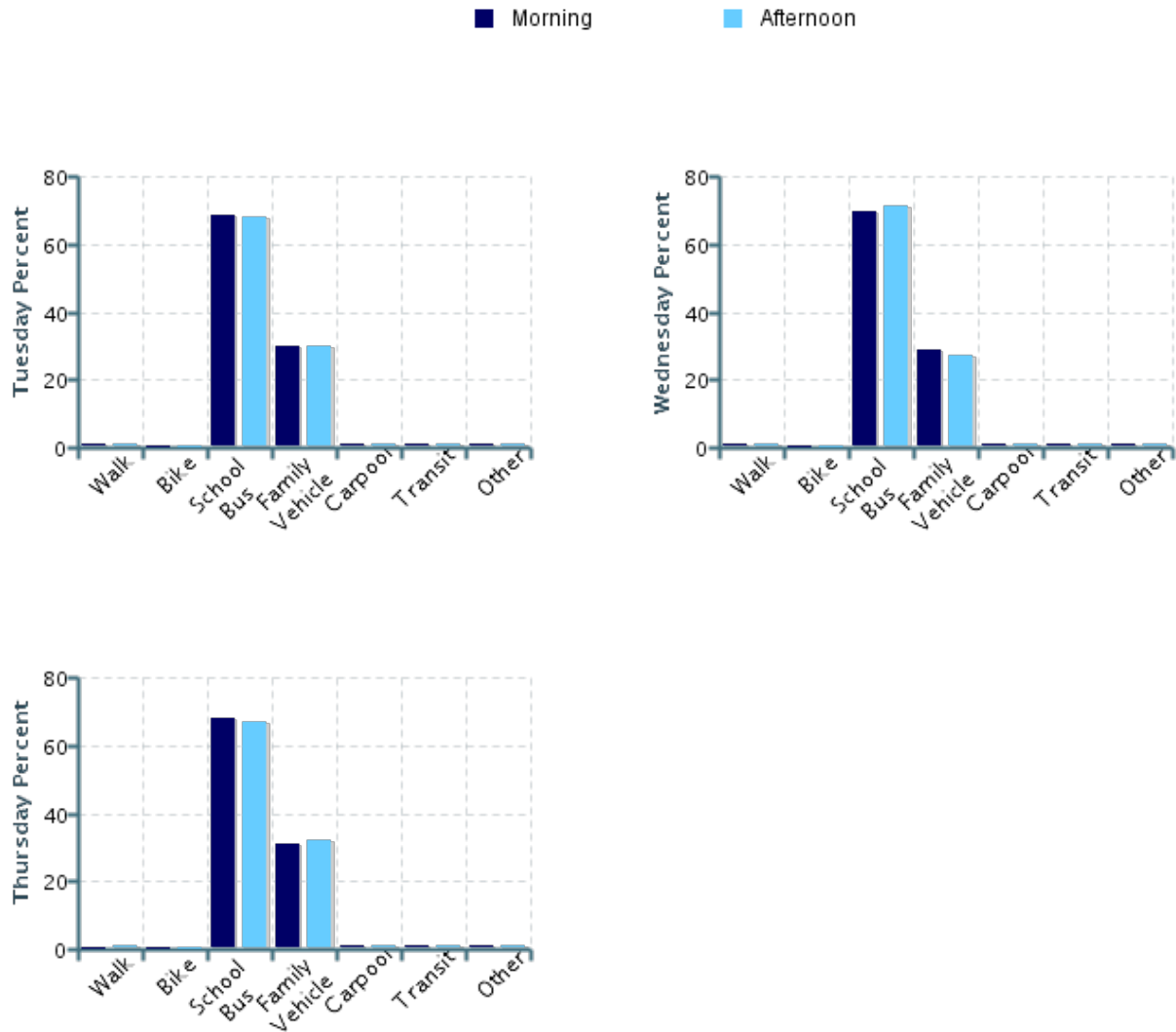


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	1551	0.2%	0%	69%	30%	0.5%	0.3%	0.4%
Afternoon	1552	0.3%	0%	69%	30%	0.5%	0.2%	0.4%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

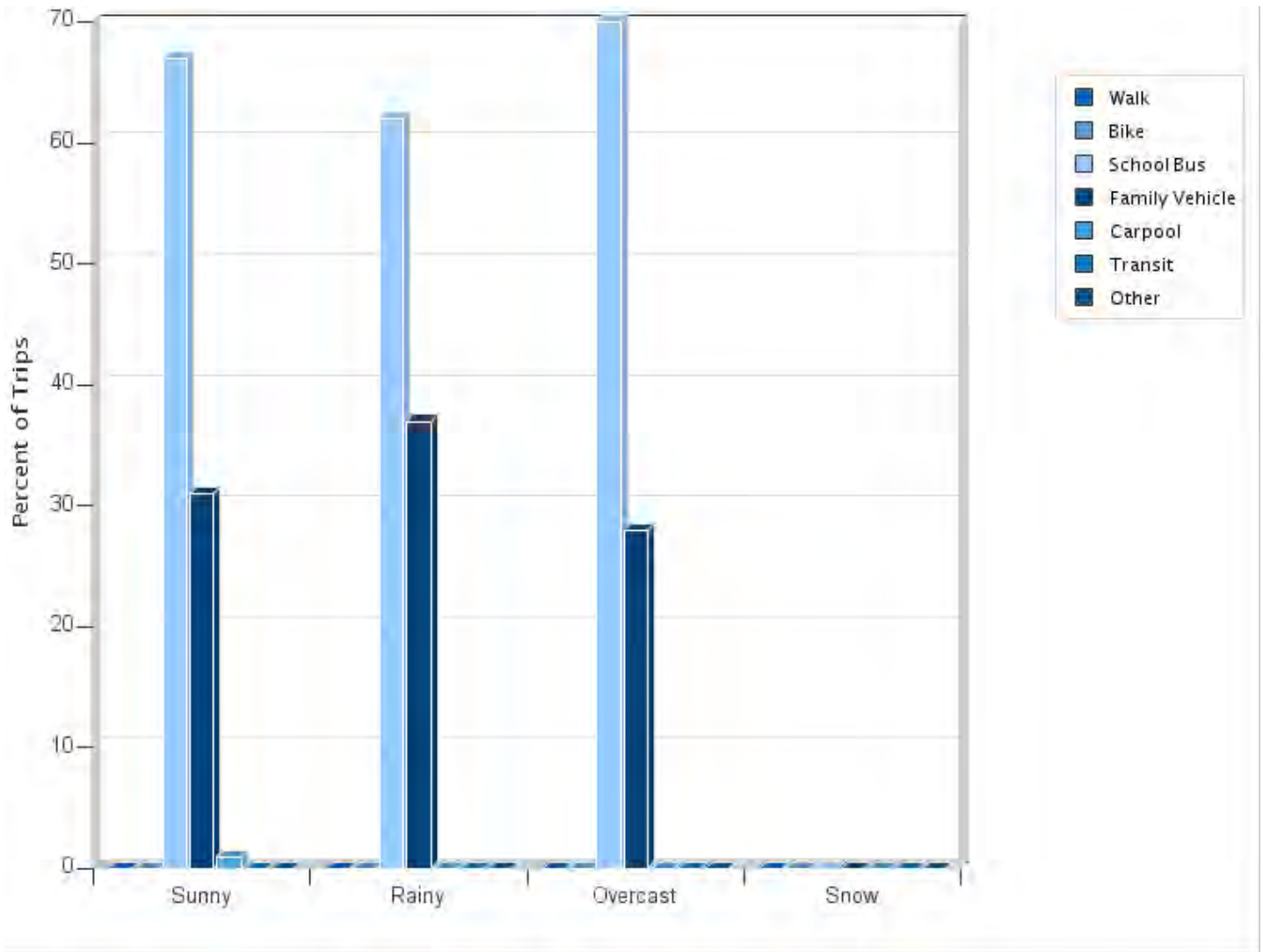


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	523	0.4%	0%	69%	30%	0.4%	0.4%	0.4%
Tuesday PM	521	0.2%	0%	68%	30%	1.0%	0.2%	0.4%
Wednesday AM	512	0.2%	0%	70%	29%	1.0%	0.2%	0.4%
Wednesday PM	514	0.4%	0%	71%	27%	0.4%	0.2%	0.4%
Thursday AM	516	0%	0%	68%	31%	0.2%	0.2%	0.4%
Thursday PM	517	0.2%	0%	67%	32%	0.2%	0.2%	0.4%

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	901	0.2%	0%	67%	31%	0.9%	0.2%	0.4%
Rainy	260	0.4%	0%	62%	37%	0.4%	0.4%	0%
Overcast	1942	0.2%	0%	70%	28%	0.4%	0.2%	0.4%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

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

School Name: Foley Intermediate School

School Group: Independent School District #51

School Enrollment: 0

% of Students reached by SRTS activities:

Number of Classrooms Included in Report: 35

Set ID: 27070

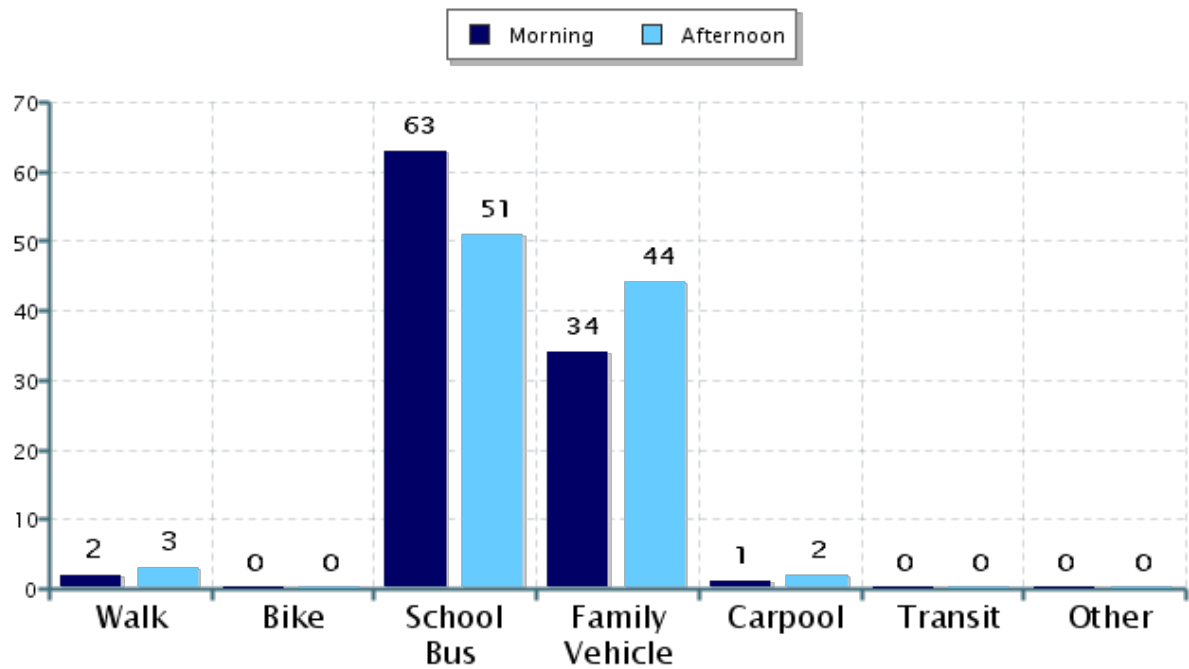
Month and Year Collected: September 2018

Date Report Generated: 11/12/2018

Tags:

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

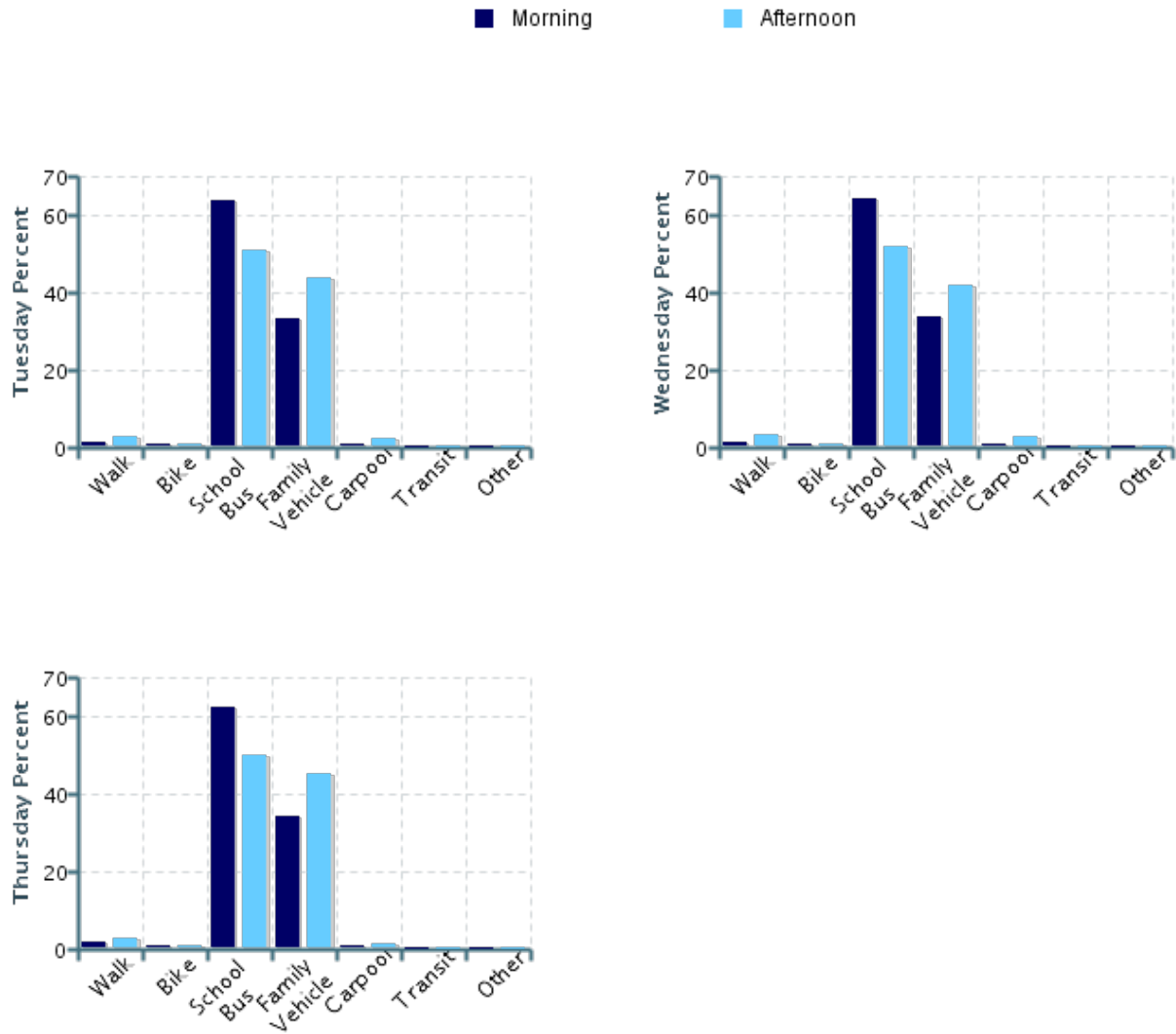


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	1831	2%	0.3%	63%	34%	0.8%	0%	0%
Afternoon	1831	3%	0.3%	51%	44%	2%	0%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

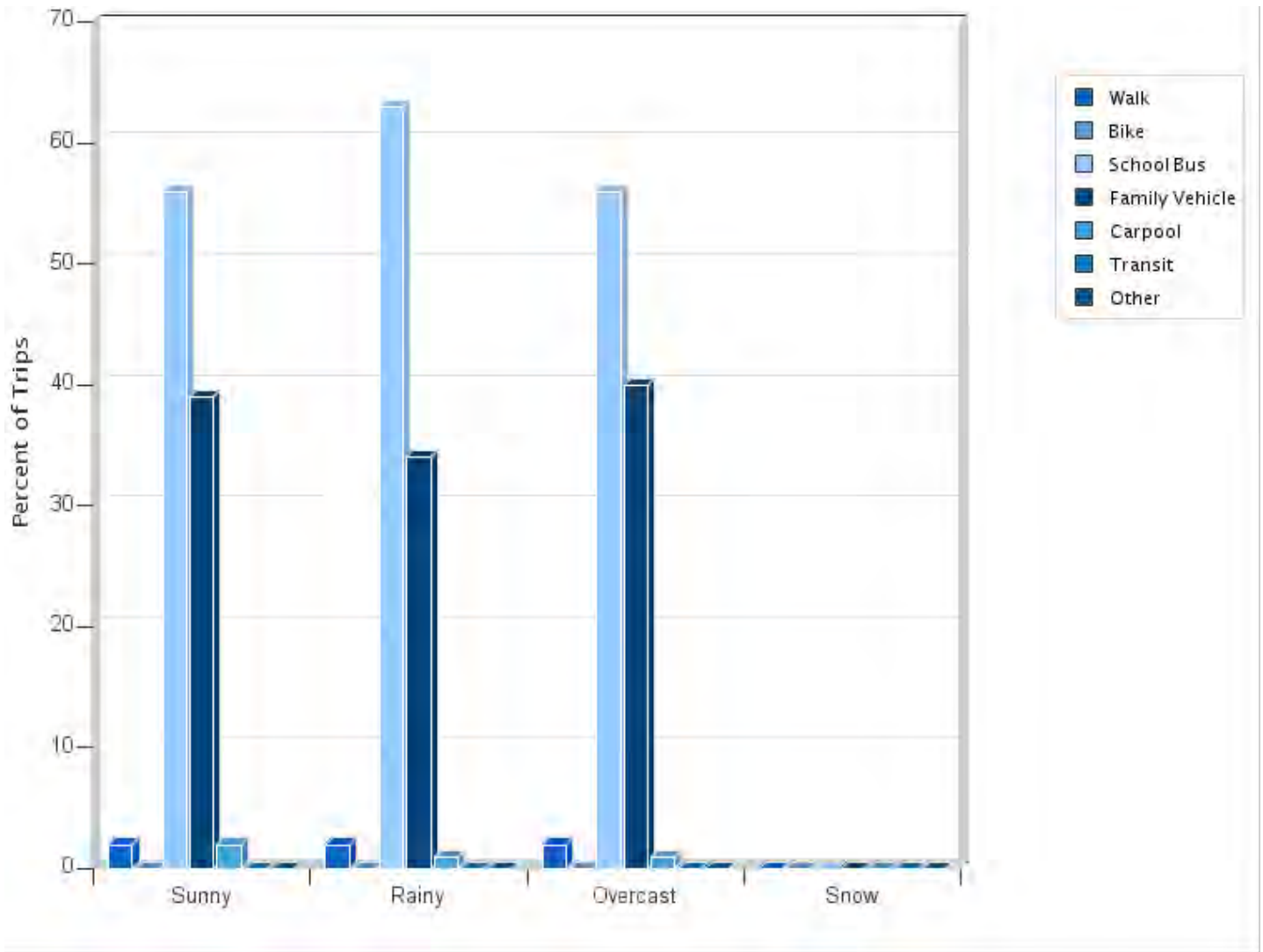


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	610	2%	0.3%	64%	33%	0.8%	0%	0%
Tuesday PM	610	3%	0.2%	51%	44%	2%	0%	0%
Wednesday AM	608	1%	0.2%	64%	34%	0.5%	0%	0%
Wednesday PM	608	3%	0.3%	52%	42%	3%	0%	0%
Thursday AM	613	2%	0.5%	62%	34%	1.0%	0%	0%
Thursday PM	613	3%	0.5%	50%	45%	2%	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	1194	2%	0.3%	56%	39%	2%	0%	0%
Rainy	591	2%	0.3%	63%	34%	1%	0%	0%
Overcast	1877	2%	0.3%	56%	40%	1%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

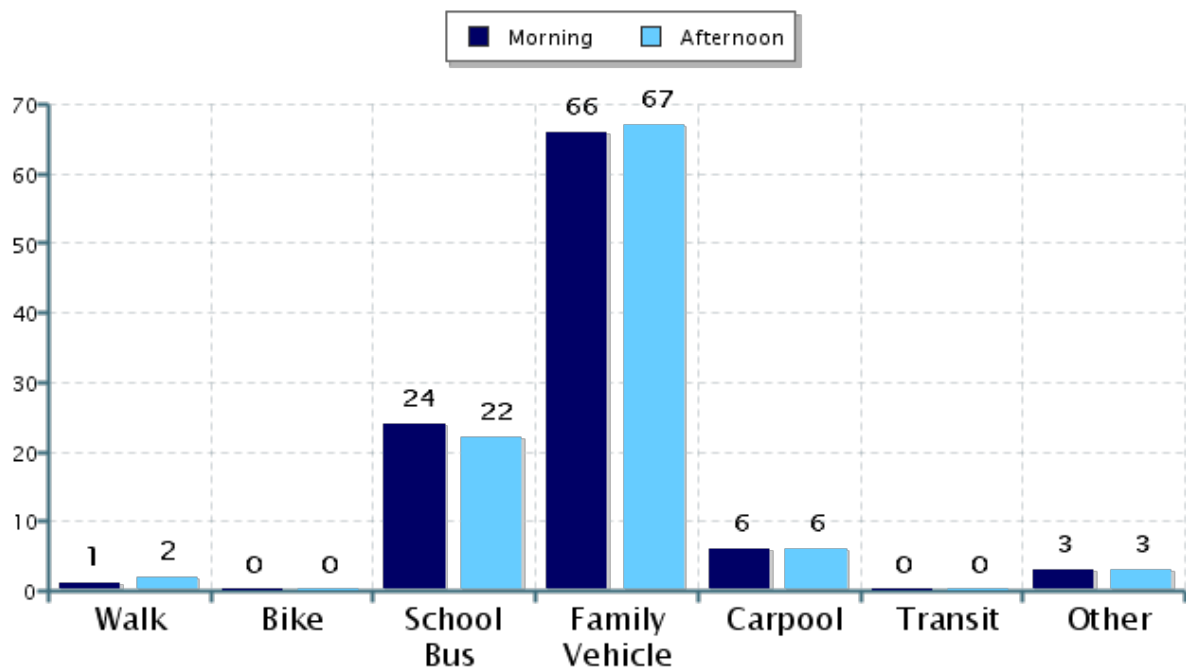
Percentages may not total 100% due to rounding.

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

School Name: Foley Senior High School**Set ID:** 27102**School Group:** Independent School District #51**Month and Year Collected:** September 2018**School Enrollment:** 0**Date Report Generated:** 11/12/2018**% of Students reached by SRTS activities:****Tags:****Number of Classrooms
Included in Report:** 24

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

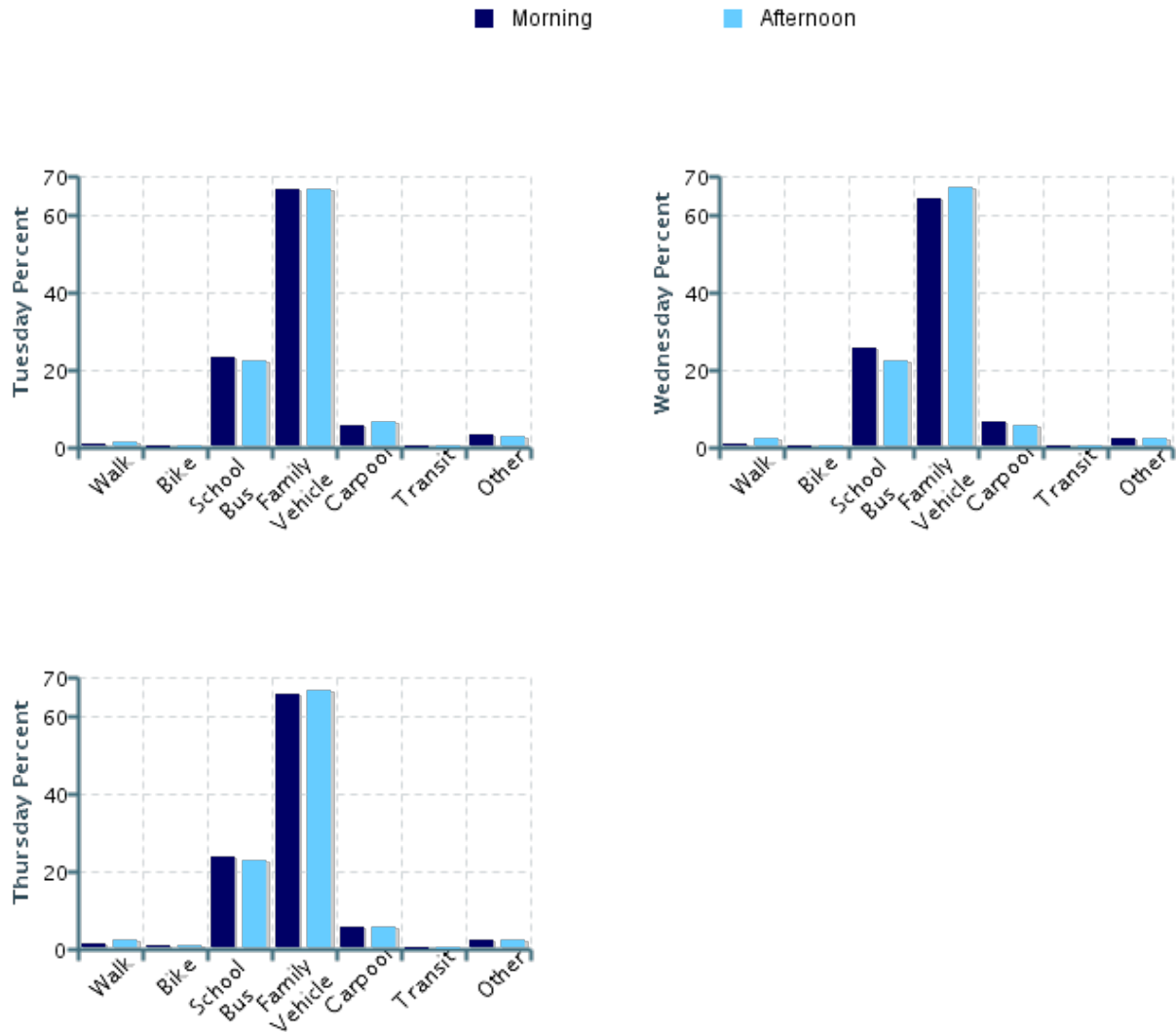


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	1466	1%	0.1%	24%	66%	6%	0%	3%
Afternoon	1464	2%	0.1%	22%	67%	6%	0%	3%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

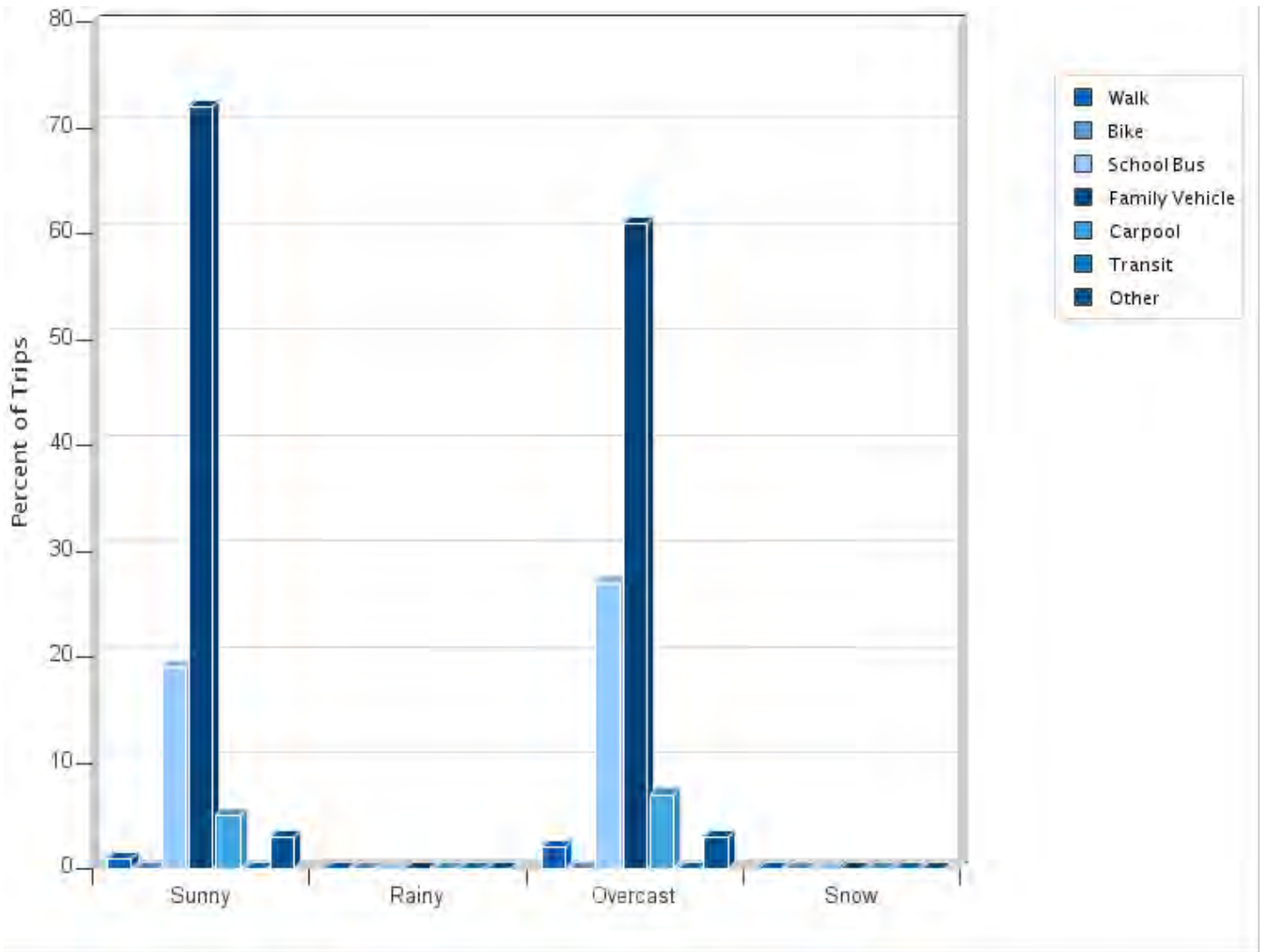


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	479	1%	0%	23%	67%	6%	0%	3%
Tuesday PM	477	1%	0%	22%	67%	7%	0%	3%
Wednesday AM	502	1.0%	0%	25%	64%	7%	0%	3%
Wednesday PM	501	2%	0%	22%	67%	6%	0%	3%
Thursday AM	485	2%	0.4%	24%	66%	6%	0%	2%
Thursday PM	486	2%	0.4%	23%	66%	6%	0%	2%

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	1388	1%	0%	19%	72%	5%	0%	3%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	1542	2%	0.3%	27%	61%	7%	0%	3%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

App. H. Environment & Policy Assessment



The table below shows responses to the MnDOT Environment and Policy Assessment tool. The questionnaire was completed by each of the three Foley school principals in the fall of 2018. The survey asks about programs and policies that exist at each school related to walking and biking. It also asks about the condition and presence of infrastructure surrounding each school.

School Name	Foley Senior High School	Foley Intermediate School	Foley Elementary School
School Address	621 Penn Street	840 Norman Ave	743 Penn Street
Date Completed (D-M-Y)	10/21/2018	10/25/2018	11/8/2018
Enter the 9-digit number associated with this school or 6-digit number associated with a school district as listed on the MDE webpage.	0051-01-020	0051-01-030	0051-01-030
Name of person filling out assessment	Shayne Kusler	Eric Bjurman	Jason Mielke
Phone Number	(320) 968-7246	(320) 968-8583	(320) 968-7286
Email Address	skusler@apps.isd51.org	ebjurman@apps.isd51.org	jmielke@apps.isd51.org
How does your school or district wellness policy address walking and biking?	Promotes walking and biking	Promotes walking and biking	Walking and biking are not addressed
How does your school or district transportation policy address walking and biking?	Walking and biking are not addressed	Walking and biking are not addressed	Walking and biking are not addressed
Does your school or district collaborate with local law enforcement on enforcing speed limits or other traffic laws in the school zone?	Yes	Yes	No
Does your school or district have a plan for evaluating Safe Routes to School efforts?	Yes	Yes	Yes
Does your school have or participate in walking and biking events or programs such as Walk to School Day or Walking School Buses?	Yes	Yes	Yes
Does your school have or participate in walking and biking skills and safety training or curriculum?	No	No	No
How many designated and separated points of entry (e.g., sidewalk, trail, or intersection connection) onto the school property are accessible to walkers or bikers?	3 or more		2-Jan 3 or more
Is the bus loading/unloading area separated from parent pick-up and drop-off?	Yes	Yes	Yes
Does your school have a written arrival and dismissal policy that addresses the needs and safety of students walking and biking, such as providing staggered dismissal times or separated physical arrival/dismissal spaces for students walking and biking?	No policy or limited policy that acknowledges students walking and biking but does not address their unique needs and safety	Yes, policy addresses needs and safety of students walking and biking, and it is communicated to parents via school's communications channels (e.g., school website, email, flyers, etc.)	No policy or limited policy that acknowledges students walking and biking but does not address their unique needs and safety
What speed limits are posted within your school zone? Do not include signs that lower speed limits only when students are present.	All speed limits 30 mph or less	All speed limits 30 mph or less	All speed limits 30 mph or less
Are there signs in your school zone that lower the speed limit to less than 30 mph when students are present?	No	Yes	No
Do the streets in your school zone have sidewalks, paths, and/or protected walkways?	Yes, but gaps are present	Yes, but gaps are present	Yes, present throughout with no gaps
Are sidewalks and trails in your school zone maintained in safe condition in winter (e.g., cleared of snow and ice to allow students walking and biking to safely navigate them)?	Yes, all trails and sidewalks	Yes, in some areas	Yes, all trails and sidewalks
What is the condition of the sidewalks in your school zone? (Best guesses are okay).	Good (few (< 25%) cracked, buckled, or missing sections)	Acceptable (some (25-50%) cracked, buckled or missing sections)	Good (few (< 25%) cracked, buckled, or missing sections)
How clear of obstacles (garbage bins, signs, utility poles, overgrown plants, trees, etc.) are the sidewalks in your school zone?	Few or no obstacles	Not Applicable	Few or no obstacles
Do the streets in your school zone have dedicated bicycle lanes, trails, and/or off street paths?	No	No	No
Does your school have a designated walking route in the school zone? if yes, consider this route when answering the following questions	No	No	Yes, but it is not promoted
Are marked crosswalks present in your school zone?	Yes, at all crossings	Yes, at some crossings (or within designated route)	Yes, at some crossings (or within designated route)
Are pedestrian crossing signals or 'countdown' pedestrian crossing signals present at traffic signals in your school zone?	No	No	No
Are adult crossing guards with safety vests and STOP paddles or flags present within the school zone?	No	No	No
Is student school patrol present within the school zone?	No	No	No

App. I. School Zone Hazard Observation Tool

The following pages show results from the School Zone Hazard Observation Tool at the Foley campus. The assessment was completed in the fall of 2018 and documents hazardous behaviors by people driving, walking, and biking in the area surrounding school. The assessment was done at multiple locations around the campus.

LOCATION #1

School Zone Hazard Analysis Tool							
<p>Instructions: Use this tool for analysis after completing a School Zone Hazard Observation. Add up all the tally marks in each column of the School Zone Hazard Observational Assesment and enter the totals below in the blue cells. The white cells will automatically calculate the percentage of people engaging in each unsafe behavior by mode.</p> <p>If you observed multiple locations, do the analysis for each location separately.</p>							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number		13				4	17
Percentage (auto calculates)	175	7%	0%	0%	0%	2%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number							0
Percentage (auto calculates)	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number							0
Percentage (auto calculates)	1	0%	0%	0%	0%	0%	



LOCATION #2

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	101	4	11	1		10	26
Percentage (auto calculates)		4%	11%	1%	0%	10%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	0						0
Percentage (auto calculates)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	1						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	

LOCATION #3

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	139	21	3				24
Percentage (auto calculates)		15%	2%	0%	0%	0%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	1						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	1						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	



LOCATION #4

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	260	6	3	1	3	14	27
Percentage (auto calculates)		2%	1%	0%	1%	5%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	3						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	1						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	

LOCATION #5

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	116	3	3	3		15	24
Percentage (auto calculates)		3%	3%	3%	0%	13%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	6			5			5
Percentage (auto calculates)		0%	0%	83%	0%	0%	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	1						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	



LOCATION #6

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	220	10		7			17
Percentage (auto calculates)		5%	0%	3%	0%	0%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	2	2					2
Percentage (auto calculates)		100%	0%	0%	0%	0%	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	2						0
Percentage (auto calculates)		0%	0%	0%	0%	0%	

LOCATION #7

School Zone Hazard Analysis Tool							
	Total Drivers	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:	Total Unsafe Behaviors Observed by Drivers
Number	184	2				24	26
Percentage (auto calculates)		1%	0%	0%	0%	13%	
	Total Pedestrians	Using phone	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:	Total Unsafe Behaviors Observed by Pedestrians
Number	1			1			1
Percentage (auto calculates)		0%	0%	100%	0%	0%	
	Total Bicyclists	Using phone	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:	Total Unsafe Behaviors Observed by Bicyclists
Number	0						0
Percentage (auto calculates)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	



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Appendix J. Engagement Summary

INTRODUCTION

The Foley Community Schools campus, located at 840 Norman Ave, Foley, MN, includes schools covering the range of K – 12.

As a part of the 2018 Safe Routes to School (SRTS) program, the Minnesota Department of Transportation (MnDOT) provided Foley Schools with technical assistance which included engagement with the Foley community (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 attended the school's Fall Youth Expo and dinner on September 13, 2018, and hosted a "pop-up" table with activities and information for attendees. Presentation materials and activities included a walk/bike trivia game to grab attention, a giant table top "placemat" graphic with a post it note activity about identifying issues and opportunities, and an interactive barriers mapping activity. We also provided an SRTS "zine" activity book as a hand-out with resources for additional information. Staff interacted with around 30 – 40 families throughout the evening.

HIGHLIGHTS

Community Engagement Activities

Display boards and interactive activities to provide information and understand opportunities and barriers to walking and biking to school.

Opportunities

Kids and parents alike enjoy walking and biking in Foley and there is an opportunity to leverage that excitement into encouraging more kids to walk and bike to school. Many families who live close enough to walk, but currently ride the bus, were interested in learning more.

Barriers

Walking and biking to the Foley Community Schools can be dangerous for young students, especially when crossing problematic roads and intersections, particularly the major intersections along Highway 23. In addition, the rural nature of the community means many families simply live too far away to walk or bike to school.

Infrastructure Findings

The intersections of Highway 23 with 8th, 4th, and Broadway Avenues can be difficult to safely cross, with driver compliance at crosswalks being a concern. In addition, limited pedestrian lighting along Highway 23 makes for an uncomfortable walking and biking experience outside of daylight hours.

Program Findings

Increasing driver enforcement at the marked cross-walks on Highway 23 was a common suggestion. People were also open to exploring other driver behavior-focused programs such as education campaigns (e.g., stop for me).



EXISTING CONDITIONS



Opportunities

Based on the comments received, the Foley community generally likes walking and biking, particularly in the Downtown Foley area. Multiple kids described walking from school to the library in Downtown Foley and one kid even added “the butcher across the street from the library” as a favorite destination because they “give you free samples.” With many families who currently send students to school on the bus expressing interest in exploring walking and biking, there is an opportunity to leverage this excitement toward walking and biking to school. Students and parents shared that walking and biking is fun and allows families and friends to play outdoors.



Barriers

Problematic Roads: TH 23; Penn Street; Dewey Street

Problematic Intersections: 8th Ave, 4th Ave, Broadway Ave, Lord Ave; School entrances; 5th Ave

The most commonly cited barrier to walking and biking to school was concern over safety. Many parents won't let students walk or bike because they feel that it's too dangerous and they're worried about students crossing unsafe streets or intersections. Students said that crossing busy roads can be scary both on foot and by bike.

Crossing Highway 23 was by far the most commonly cited barrier to walking and biking to school. Vehicles are moving at high speeds and often times drivers do not stop for people in the crosswalks, or the driver on the outside (closest to the sidewalk) stops and the driver on the inside lane does not, creating an unsafe situation where neither the pedestrian nor driver have good visibility.

Other barriers to walking or biking are time and distance to get to and from Foley, with many families living too far away to walk or bike. Some parents said that driving their students is more convenient due to time constraints in the morning, and many parents mentioned that inclement weather makes it difficult to walk or bike. Other barriers included lack of sidewalks and bike lanes and poorly lit streets and crosswalks, particularly on the edges of town.

Another issue mentioned by multiple participants was fast moving vehicle traffic on Norman Ave, north of the school, near the ball fields is a concern. People park along Norman Ave for ball games and there is no sidewalk. Cars traveling along Norman Ave from the north are going very fast and don't always see the kids in this area who are crossing the road or just “milling” around. A few parents cited traffic circulation at the school during drop off and pick up as a concern.

Heard from Foley community members:

- “No sidewalks along Highway 23, east of town”
- “Street lights don't illuminate crosswalks”
- “Drivers don't stop for people using the marked crosswalks along Highway 23”

FINDINGS

Infrastructure

Parents and students requested more protection from cars when walking and biking to and from school, with most people wanting improved crossing along Highway 23 and some people called for more bike lanes.

Programs

Enforcement – Many participants felt that increased police enforcement of driver behavior at crosswalks along Highway 23 would improve safety. Some felt that related driver education, such as a “stop for me” campaign might help.

Education – Parents indicated that part of their safety concerns with letting students walk to school could be alleviated with bicycle and walking education since their students are still learning about how to walk and bike safely to school. Several parents said that their children want to bike more, but parents feel that they are too young and that it is too dangerous for them to bicycle with traffic. Education programs such as Walk! Bike Fun! could help ease parent concerns about safety, and teach students how to safely share the roadways while walking and biking to school.

Crossing Guards – Another program to address walking and biking barriers mentioned was adding crossing guards at the busy intersections along Highway 23.



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Appendix K. 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^{A,E}

- \$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^D

- \$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^E

- \$13,000 for a single corner



CURB RADIUS REDUCTION

Description

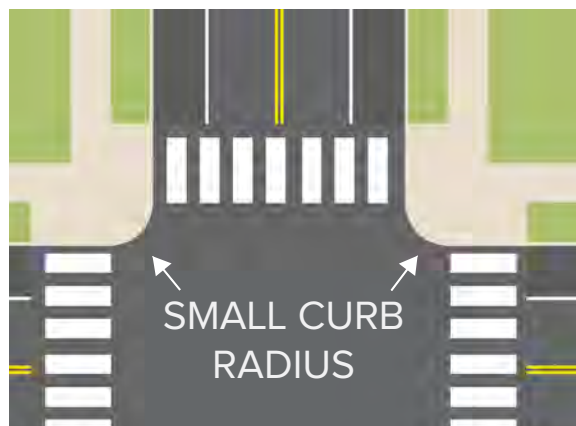
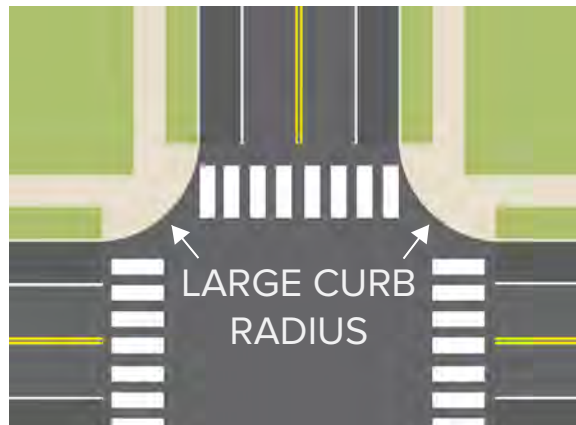
Curb radii designs are determined based on the design vehicle of the roadway. In general, vehicles are able to take turns more quickly around corners with larger curb radii. Minimizing curb radii forces drivers to take turns at slower speeds, making it easier and safer for people walking or biking to 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^{F, G}

- \$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^H

- \$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^E

- \$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^A

- \$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^E

- \$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^E

- \$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^B

- \$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^E

- \$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^{A, C}

- \$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^B

- \$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^{A, B}

- \$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^E

- \$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.traffic-sign.us/signcost.html>

D: <https://www.bls.gov/oes/current/oes339091.htm>

E: http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf

F: http://guide.saferoutesinfo.org/engineering/reduced_corner_radii.cfm

G: http://www.pedbikeinfo.org/cms/downloads/Countermeasure_Costs_Summary_Oct2013.pdf

H: <http://www2.ku.edu/~kutc/pdf/LTAPFS11-Mid-Block.pdf>

Appendix L. 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!

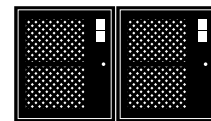
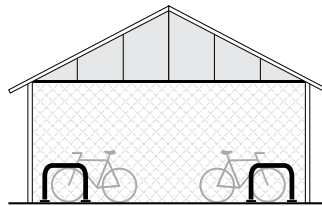
WHERE SHOULD PARKING BE LOCATED?

Well-located bike parking will be:

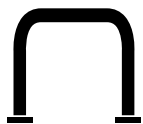
- visible to students, staff, and visitors
- near the primary school entrance/exit
- easily accessed without dismounting
- clear of obstructions which might limit the circulation of users and their bikes
- easily accessed without making a rider cross bus and car circulation
- installed on a hard, stable 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

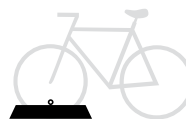
These racks provide two points of contact with the bicycle, accommodate varying styles of bike, allow for at least one wheel to be U-locked, and are intuitive to use!



WAVE



SPIRAL



WHEELWELL

WHICH RACKS ARE NOT RECOMMENDED?

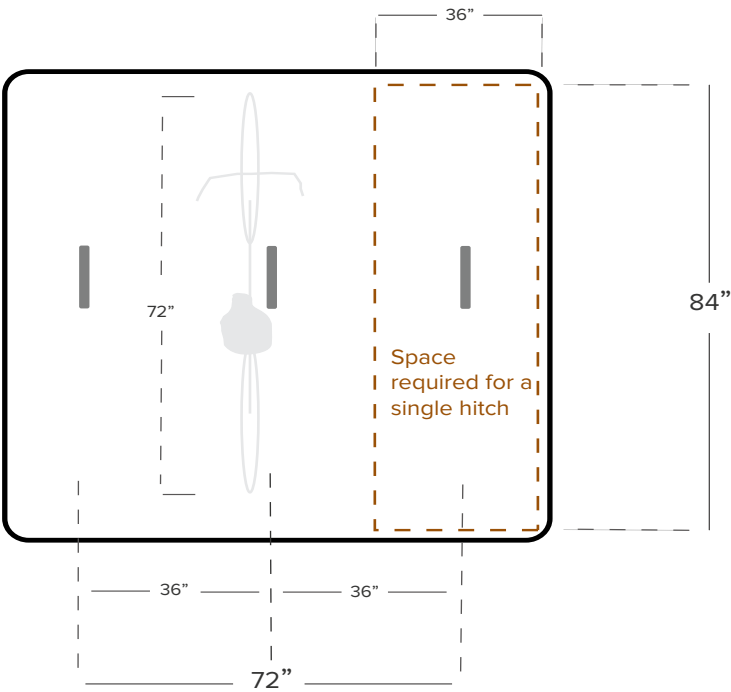


COMB

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!

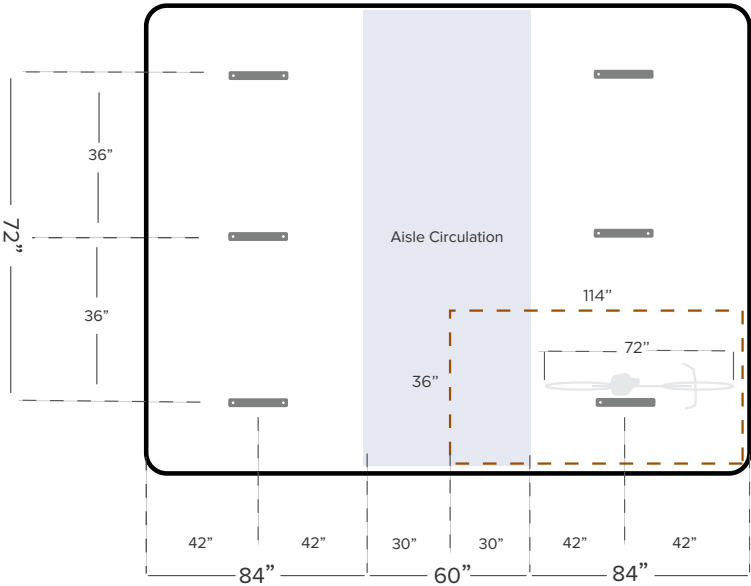
Graphics courtesy of Association of Pedestrian and Bicycle Professionals Essentials of Bike Parking report (2015).

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 M. 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



Appendix N. 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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