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APPENDICES

SAINT PAUL PUBLIC SCHOOLS - WEST SIDE SRTS PLAN
SAINT PAUL, MINNESOTA
SEPTEMBER 2021

Appendix A. For More Information

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

NATIONAL RESOURCES

Safe Routes to School Data Collection System
http://www.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
https://www.changelabsolutions.org/product/safe-routes-school-district-policy-workbook

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
395 John Ireland Blvd
St. Paul, MN 55155
651-366-4180
dave.cowan@state.mn.us

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/MinnesotaSafeRoutesto-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 Stewart
Safe Routes to School Lead
Saint Paul Public Schools
sarah.stewart.@spps.org

Appendix B. SRTS Talking Points

To ensure a successful SRTS program, it is crucial to get school principals and other school administration leaders the communications resources they need to share the importance of SRTS with caregivers. To get these leaders involved initially, in-person meetings are a great start and opportunity to share SRTS goals and potential activities for the year. This gives school leaders a chance to learn more about the program, but also share thoughts and ideas unique to their school. Share with them the academic benefits: students that walk or bike to school arrive awake, alert, and ready to learn, and physical activity before school increases academic performance and reduces student absences. If the principal is interested in getting involved with the program, or is already a supporter, point them to A Primer for School Boards and Principals for more resources on coordinating a successful program.

The following list of facts and statistics can be used by principals and other SRTS advocates in communications materials to share the benefits of a SRTS program. These points have been collected from national sources, and apply to all schools and school districts: big or small, urban or rural, etc.. They are intended to be used in communication materials such as school newsletters, emails, school websites, social media posts, signs, videos, and direct communications with caregivers (including handouts, emails, texts, automated calls, etc.). 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 students in grades K–8 live within one mile of school; 38 percent of these students walk or bike to school. You can travel one mile in about 20 minutes by foot or six minutes by bicycle.
- 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, biking, and rolling, more people feel comfortable walking and bicycling.
- Reducing the miles caregivers 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, biking, and rolling 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 students 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 rates have more than tripled in the past 30 years, while the number of children walking, biking, and rolling 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 students 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.
- 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.
- Eight bicycles can be parked in the space required for just one car.

Appendix C. Planning Process

Planning for this SRTS plan began in the summer of 2020, after Saint Paul Public Schools and the City of Saint Paul were awarded a SRTS planning assistance grant from MnDOT. In September 2020, local team leads, members of the consulting team, and MnDOT staff formally kicked off the planning process and met to provide an overview of SRTS and the 6 E's, review the planning process and schedule, brainstorm child and family engagement opportunities, and discuss challenges and recent efforts related to walking, biking, and rolling to school.

PROJECT SCHEDULE

Fall 2020: Project kickoff, data collection, Rapid Planning Workshop

Winter 2020-2021: Community engagement, identification of issues and opportunities

Spring 2021: Draft strategies and action steps

Summer 2021: Draft and final SRTS Plan

DATA COLLECTION

In fall of 2020, baseline data was collected through a variety of SRTS evaluation methods including tools from the National Center for Safe Routes to School and Minnesota Safe Routes to School Resource Center:

- **Student Travel Tallies:** Generally, a student hand tally identifies the most common way students travel to and from campus (school bus, family, walking, etc.). However, due to the COVID-19 pandemic, student hand tallies were not completed this year, but they are still a recommended way of collecting data in future years.
- **Caregiver Survey:** Surveys collected information from caregivers about perceptions, habits, and barriers related to walking, biking, and rolling to school, and changes that would make children more confident walking or biking. A total of 41 surveys were completed for Saint Paul Public Schools.
- **Interactive Online Map:** An interactive online map allowed children, caregivers, and community stakeholders to identify destinations, routes, and barriers for walking, biking, and rolling.
- **School Community Engagement:** SRTS staff provided community engagement support to collect ideas on walking and biking from the Saint Paul Public Schools community. They assisted local Saint Paul Public Schools (SPPS) staff by hosting an interactive engagement website, creating an informational video, and supporting a student-led survey to gather feedback on the opportunities and barriers of walking and biking to school. See additional information in Appendix F.

RAPID PLANNING WORKSHOP

In December 2020, a broad group of stakeholders met for an intensive, multi-day, hybrid Rapid Planning Workshop. This charrette-style event brought together school, city, county, and MnDOT staff, plus students, caregivers, and community members to discuss challenge and opportunities for walking, biking, and rolling to school.

The Rapid Planning Workshop included:

- Introduction to SRTS for all participants including programs, infrastructure, and the planning process
- Observation of student arrival and dismissal

- Walking audit of the streets surrounding the Saint Paul Public Schools campuses
- Discussion of infrastructure issues, upcoming projects, and opportunities for improvement
- Brainstorm of existing and potential programs
- Meeting with a student panel to discuss routes, challenges, and opportunities

Information gathered during the day was used to develop preliminary draft infrastructure and program recommendations for Saint Paul Public Schools. Preliminary recommendations were shared with the SRTS Team for input and refinement prior to identifying action steps and schedules for implementation.

DRAFT STRATEGIES AND ACTION PLAN MEETING

The Saint Paul Public Schools SRTS Team met in March 2020 to review draft program and infrastructure recommendations. Participants discussed near-term priorities as well as stakeholders and resources to help support and lead implementation.

DRAFT AND FINAL SRTS PLAN

The draft Saint Paul Public Schools SRTS Plan was shared with the local planning team for review and comment in spring of 2021 using an interactive online PDF commenting tool. A final copy of the plan was delivered in summer 2021.

Appendix D. Existing Conditions

The following is a summary of the existing conditions on and around the Saint Paul Public Schools campuses.

SAINT PAUL PUBLIC SCHOOLS (SPPS) CONTEXT

Basic Information

Cherokee Heights Elementary
Principal: Heidi Koury
Grades: PreK-5
Number of students: 192
Arrival time: 7:30 am
Dismissal time: 2 pm

Riverview West Side School of Excellence
Principal: Nancy D. Páez
Grades: PreK-5
Number of students: 439
Arrival time: 9:30 am
Dismissal time: 4 pm

Open World Learning Community (OWL)
Principal: David Gundale
Grades: 6-12
Number of students: 476
Arrival time: 8:30 am
Dismissal time: 3:00 pm

Humboldt High School
Principal: Abdirizak Abdi
Grades: 6-12
Number of students: 1103
Arrival time: 8:30 am
Dismissal time: 3:00 pm

Student Locations and School Enrollment Boundary

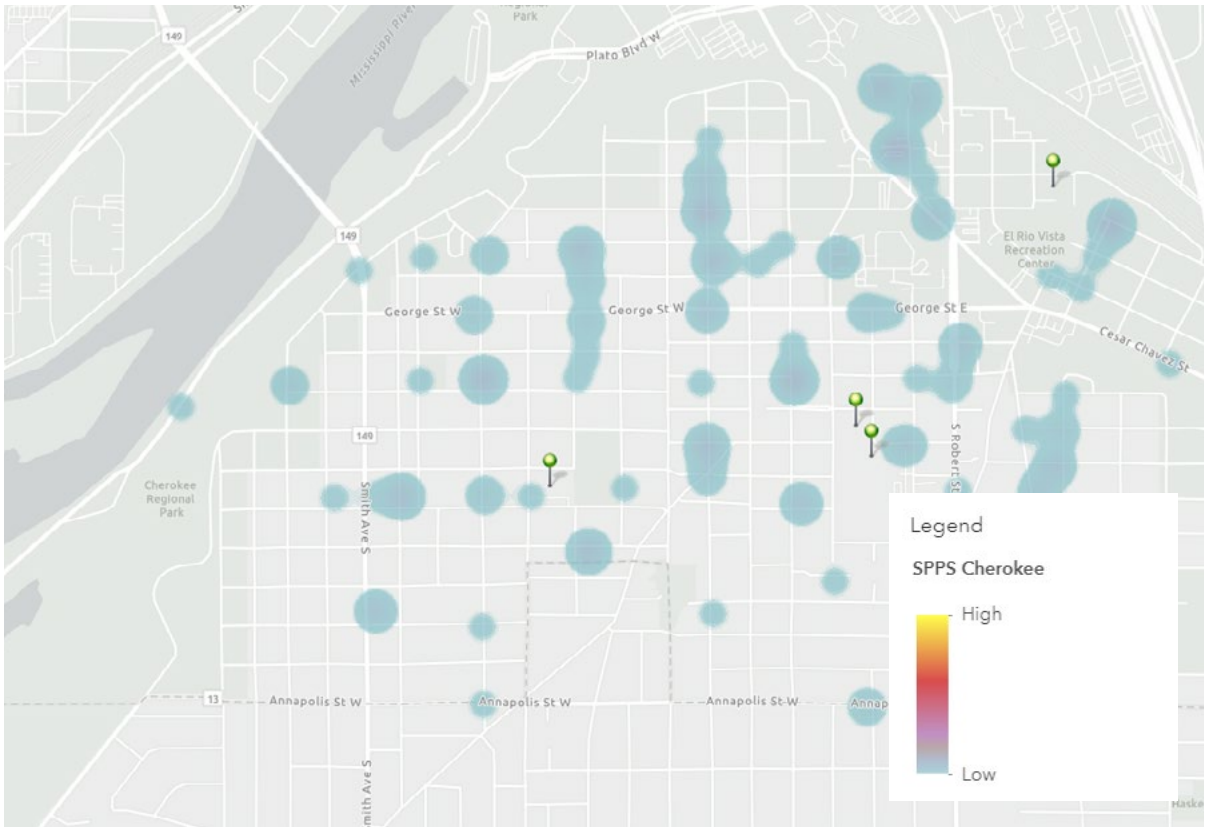
The maps on the following page show the locations of students attending school at Cherokee Heights Elementary, Riverview Elementary, Open World Learning Academy (OWL), and Humboldt High during the 2020-2021 school year. The first map shows a heat map of students who live closer to each campus, and the second map includes students who live further away. The campus locations are identified with a green pin.

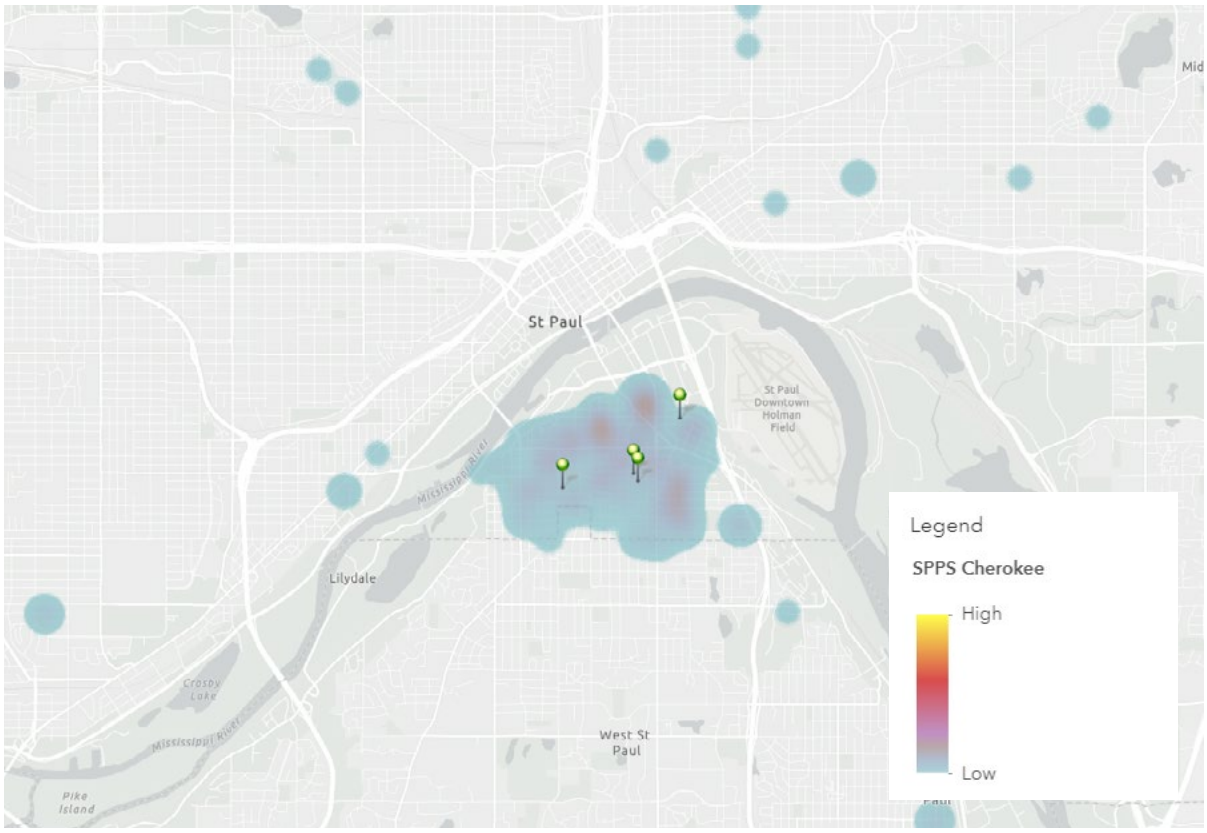
School/Campus Layout

Cherokee Heights Elementary: Cherokee Elementary is located in south central Saint Paul, Minnesota on Charlton St between Morton St and Page St, filling the block. The campus also includes Baker Recreation Center and Park just east and north of the school building, both managed by Saint Paul Public Schools. This facility includes a recreation center building, baseball field, basketball half-court, football field, playground, sledding hill, two softball fields, and two tennis courts. The building has two primary entrances, one on the west side, and one on the southeast side. Staff park in a lot on the south side of the building with limited additional parking on the north side. Bus and caregiver pickup runs along the west side of the building on Chariton.

Riverview West Side School of Excellence: Riverview West Side School of Excellence is located in south central Saint Paul, Minnesota just west of the Saint Paul Downtown Airport. The building sits at the corner of Isabel St and Greenwood Ave just before the entrance to Dundedin Terrace. The main entrance to the building is on the

CHEROKEE HEIGHTS ELEMENTARY





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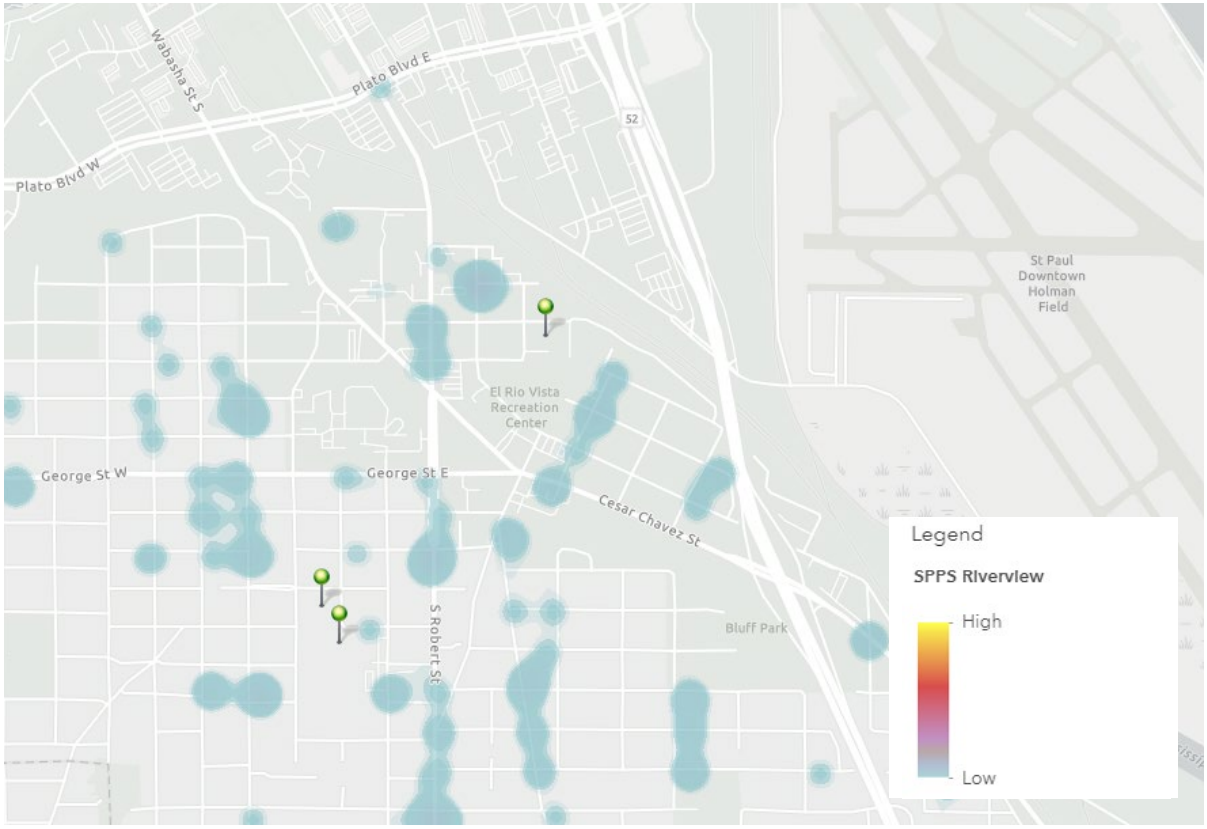
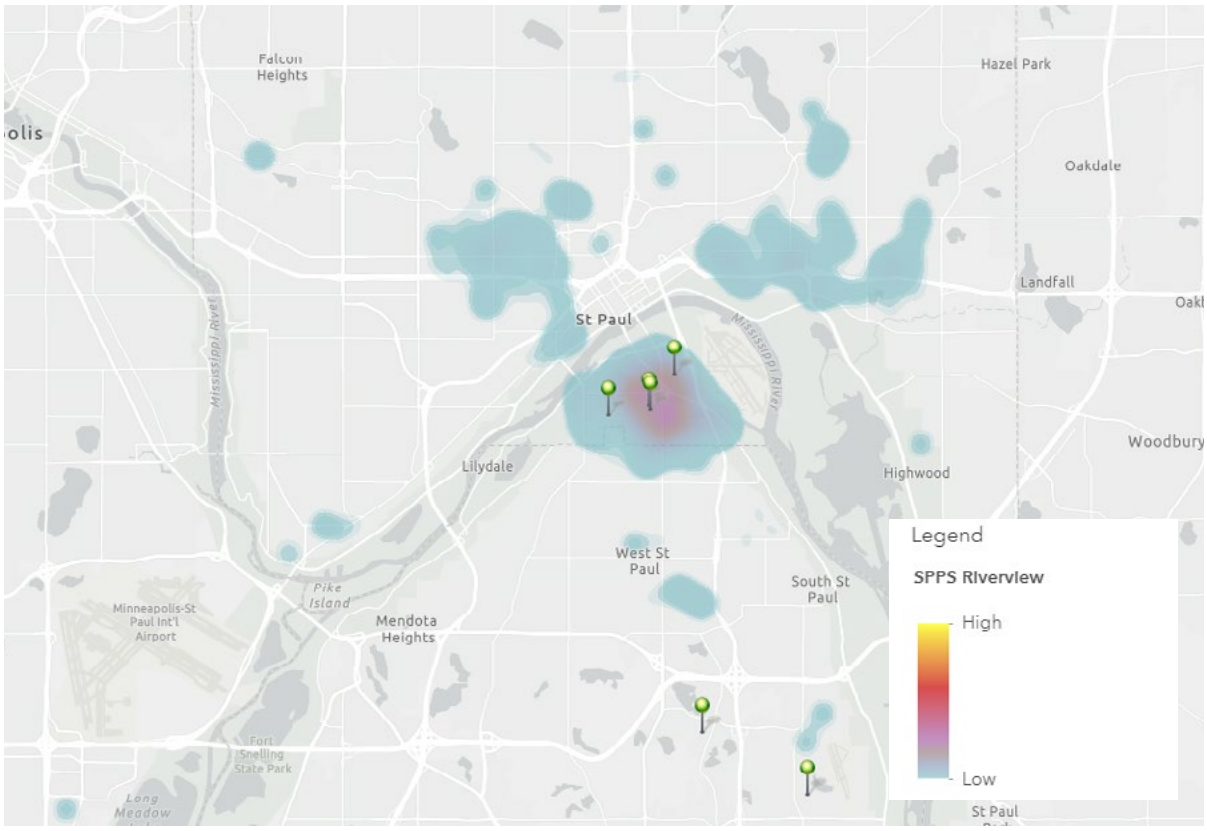
RIVERVIEW WEST SIDE SCHOOL OF EXCELLENCE





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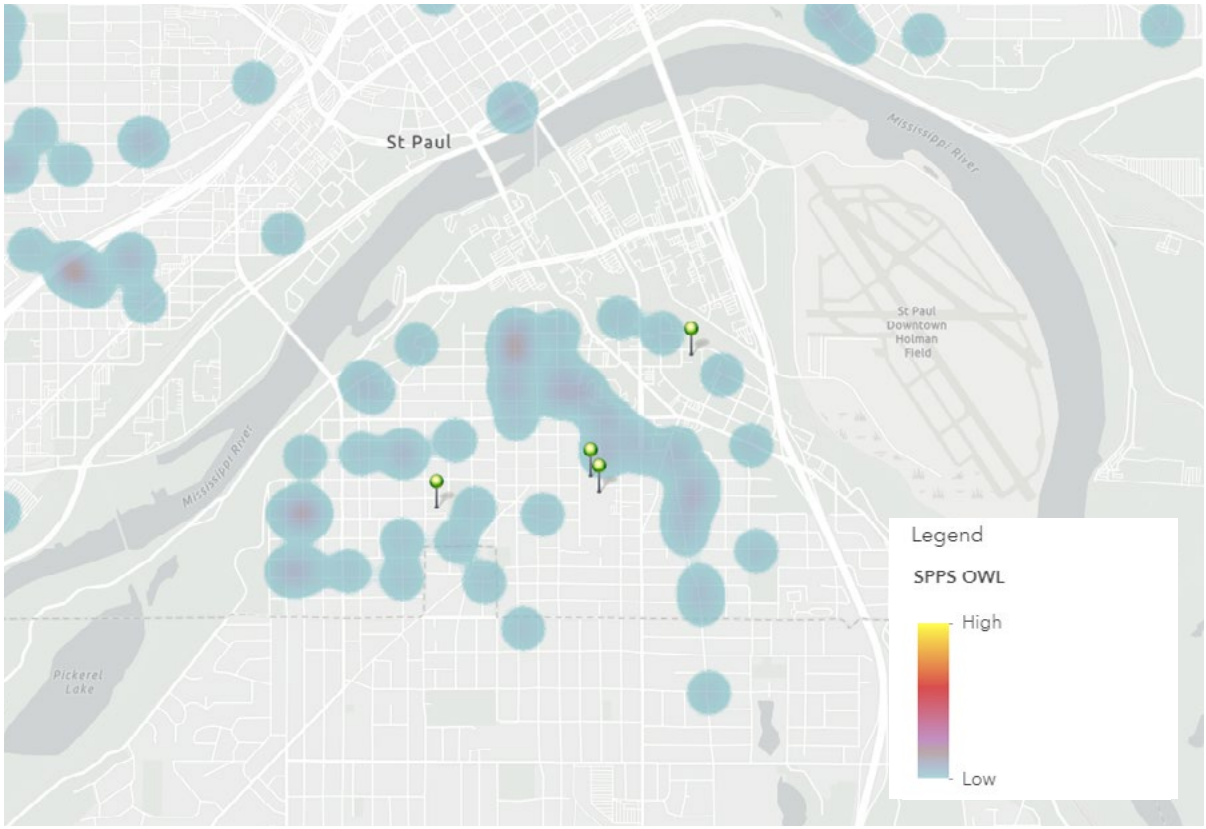
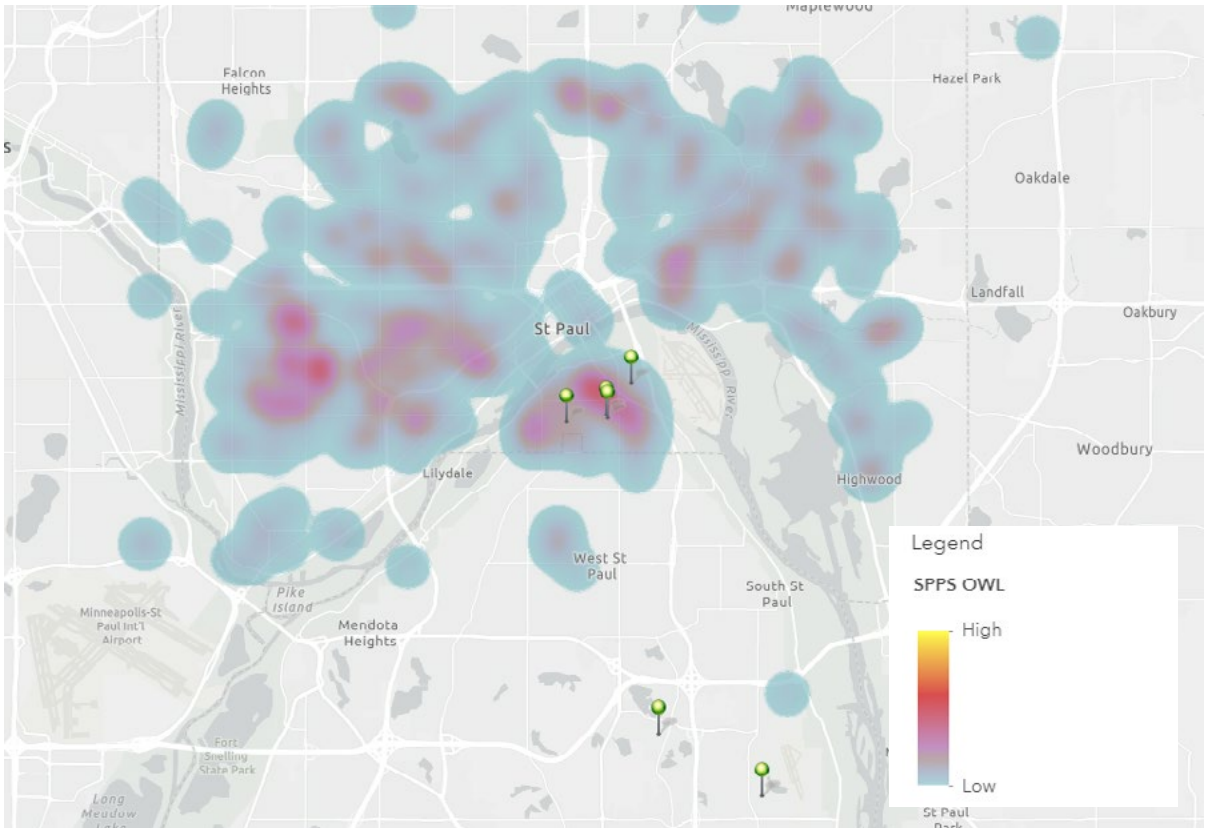
OPEN WORLD LEARNING COMMUNITY (OWL)





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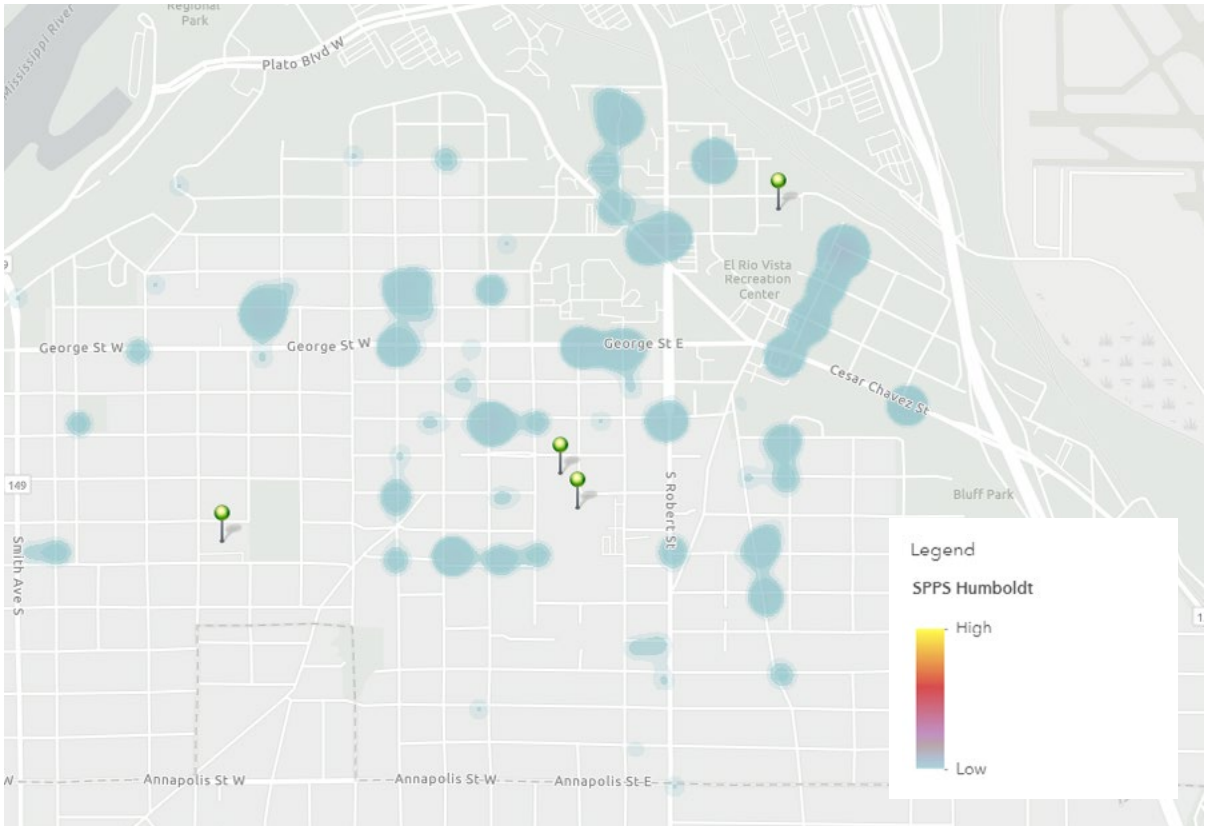
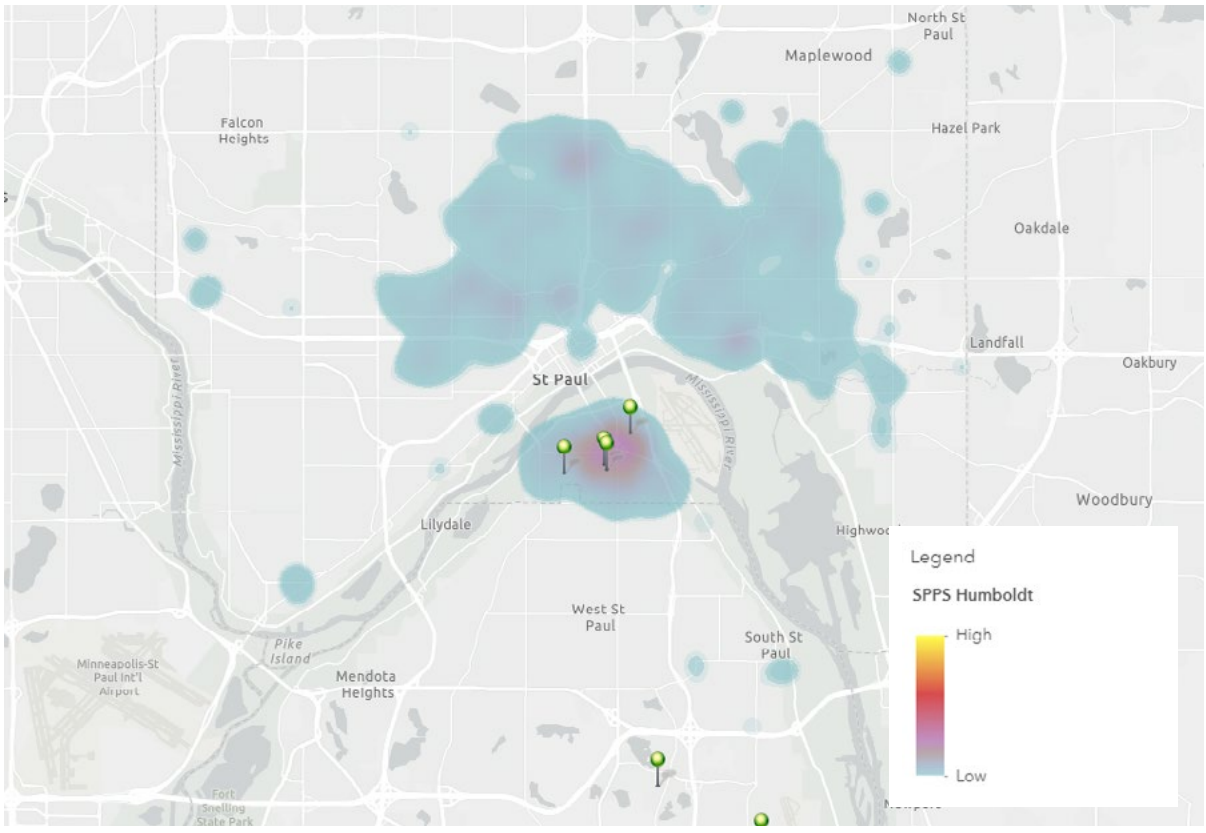
HUMBOLDT HIGH SCHOOL





Source: ArcGIS online

southwest corner, with staff parking south of the building as well as on the east side of the building. Bike parking is located on the south side of the building, and bus pickup and drop off is on the west side of the building. A playground is southeast of the building. Just south of the campus are the Gilbert De La O Athletic Fields, a baseball field and football field that are part of the City of Saint Paul Parks & Recreation, and the Paul and Sheila Wellstone Center for Community Building, a large community center.

The building is surrounded by a network of sidewalks that provide connections to the surrounding neighborhoods, and walking paths that connect students to the playing fields and community center south of campus.

Open World Learning Community (OWL): Open World Learning Community is located in south central Saint Paul, Minnesota, immediately north of Humboldt High School. The building encompasses a full block of Elizabeth St between Humboldt Ave to the west and Gorman Ave to the east. The building has bus pickup and drop off on the west side of the building on Humboldt and north side along Elizabeth, and limited staff parking closer to the high school south of the building off of Livingston Ave. The campus shares recreational facilities with Humboldt High School due to their close proximity, including tennis courts, a football/soccer field, and baseball field.

The sidewalk network around the campus provides connections to the surrounding residential neighborhoods, but limited crosswalks and curb ramps in need of maintenance to be able to accommodate mobility-impaired individuals are seen at many intersections in the area.

Humboldt High School: Humboldt High School is also located in south central Saint Paul, and as noted above, is located just south of Open World Learning Community (OWL). The main entrance to the building is on Humboldt Ave, and the campus encompasses the entire block north of Sidney St between Humboldt Ave to the west and Livingston Ave to the east. Staff parking is located west and east of the building, with recreational facilities, including tennis courts, a football/soccer field, and baseball field. Bus pickup is located on the west side of the campus.

Surrounding the campus is a network of sidewalks providing connections to the surrounding residential neighborhoods, but as mentioned above, many intersections are unmarked and ramps are in disrepair.

Surrounding Land Use

Cherokee Heights Elementary: Cherokee Heights Elementary is completely surrounded by one-family residential land use, and then two-family residential one to two blocks over. Three blocks west and three blocks east of campus are two denser corridors along Smith Ave (west) and Stryker Ave (east), with uses such as townhouse residential, traditional neighborhood, medium-density multiple family residential, and community business.

Riverview West Side School of Excellence: Riverview West Side School of Excellence is surrounded by both low-density multiple-family residential and two-family residential with traditional neighborhood use to the west and light industrial north and east. In the traditional neighborhood-zoned areas a few blocks west along Cesar Chavez St, there are many restaurants, businesses, and several parks. The industrial area north and east of campus includes the Saint Paul Downtown Airport and many large industrial facilities. Open World Learning Community (OWL) and Humboldt High School are about one mile to the southwest from Riverview.

Open World Learning Community (OWL) and Humboldt High School: Open World Learning Community (OWL) and Humboldt High School share the same campus, and therefore, the same surrounding land uses. The campuses is surrounded by two-family residential on all sides except the south, which is one-family residential. A block to the west of campus is townhouse residential and traditional neighborhood, and one block east is community business. This zoning surrounding the campus makes for primarily residential neighborhoods with several businesses, churches, and the Riverview Library nearby. Open World Learning Community (OWL) and Humboldt High School are about 3/4 miles east of Cherokee Heights Elementary and about one mile southwest of Riverview West Side School of Excellence.

Infrastructure for Walking, Biking, and Rolling

Cherokee Heights Elementary: The streets surrounding Cherokee Heights Elementary – Morton St, Charlton St, and Page St – all have sidewalks. These sidewalks connect to the school building and are offset from the road by grass and trees, ADA-accessible curb ramps are available, and limited marked crosswalks are provided at the surrounding intersections. Extending into the surrounding residential neighborhoods is a consistent sidewalk network of sidewalks on one, or more frequently, both sides of the street. Ohio Street to the west and Dodd leading in to Stryker Ave to the east are marked as bike-friendly routes, though these roads lack traffic calming measures or specific bike infrastructure/markings to alert drivers of the presence of students riding bicycles in the roadway.

Riverview West Side School of Excellence: Sidewalks are located on both sides of Isabel St and Greenwood Ave surrounding the school building, and a sidewalk networks runs throughout the neighboring residential areas. Pathways are provided from the school building to the Gilbert De La O Athletic Fields and the Paul and Sheila Wellstone Center for Community Building. Pedestrian overpasses are provided across Robert St northwest of campus and across Highway 52. Bike lanes are marked along Cesar Chavez St, but the busier nature of that street may not be comfortable for all students.

Open World Learning Community (OWL) and Humboldt High School: Sidewalks are provided on all sides of both OWL and Humboldt High School, along Humboldt Ave, Elizabeth St, Gorman Ave, Baker St, Livingston Ave and Sidney St. The surrounding residential neighborhoods also maintain a mostly consistent sidewalk network. Strkyer Street to the west and George St to the north are marked as bike-friendly routes, though these roads lack traffic calming measures or specific bike infrastructure/markings to alert drivers of the presence of students riding bicycles in the roadway. A few blocks east on Oakdale Ave, marked bike lanes are provided running north to south through residential neighborhoods.

Pedestrian and Bicycle-Involved Crashes

Pedestrian and bicycle-involved crashes were not tracked in 2020/2021 due to the COVID-19 pandemic since in-person classes were either not held or were very limited. This meant few students were traveling to and from school, and thus, crash data was not relevant.

SCHOOL TRAVEL PATTERNS

Student Hand Tallies

Generally, a student hand tally identifies the most common way students travel to and from campus (school bus, family, walking, etc.). However, due to the COVID-19 pandemic, student hand tallies were not completed this year, but they are still a recommended way of collecting data in future years.

Caregiver Survey Summary

Results from the 41 completed caregiver surveys at each school are summarized below. Detailed results from the parent surveys can be found in Appendix E.

Cherokee Heights Elementary: Ten caregiver surveys were completed for Cherokee Heights Elementary. Of those who responded, the majority of respondents reported living less than one quarter mile from school, with the others ranging from one quarter to two miles away. In terms of mode of travel to school, the majority of students walk, while the others take the school bus or are dropped off by a family vehicle. When returning home from school, majority of students take the school bus while the remainder walk or are picked up by a family vehicle.

While the majority of Cherokee Heights students reported by caregivers walk to school, in general, safety of intersections and crossings, traffic speeds along the walking/biking route, and amount of traffic along the route

are the top three issues that affect caregivers' decisions to allow their children to walk or bike to school. Safer intersections/crossings, a group of students to walk or bike with, and slower care speeds along the route would make caregivers feel more comfortable giving their student the option to walk or bike.

Although a majority of survey respondents have students who walk to school, student hand tallies completed prior to the pandemic show that most students at Cherokee Heights arrive by school bus.

Riverview West Side School of Excellence: Five caregiver surveys were completed for Riverview West Side School of Excellence. Of those who responded, one lived over two miles away, one lived one half to one mile away, one lived one quarter to one half mile away, and two others were not sure. For mode of travel to school, one takes the school bus, two are dropped off by a family vehicle, and two bike. The same modes are used for returning home from school.

Caregivers noted that weather or climate, distance between home and school, fear of violence or crime, and traffic speeds along the route affect their decision about whether to allow their student to walk or bike to school. Additionally, at the time of this survey, COVID-19 transmission was a concern that impacted caregivers' decisions. Slower car speeds along the route, safer intersections/crossings, and an adult to walk or bike with would make Riverview caregivers feel more comfortable giving their student the option to walk or bike.

Open World Learning Community (OWL): 25 caregiver surveys were completed for OWL. Of those who responded, over half estimated living over 2 miles from school, with the other respondents living one half to two miles away. To get to school, over half of the students take the school bus while one quarter are dropped off by a family vehicle. The rest of the students are split between walking, biking, and carpooling. The same modes are used for returning home from school.

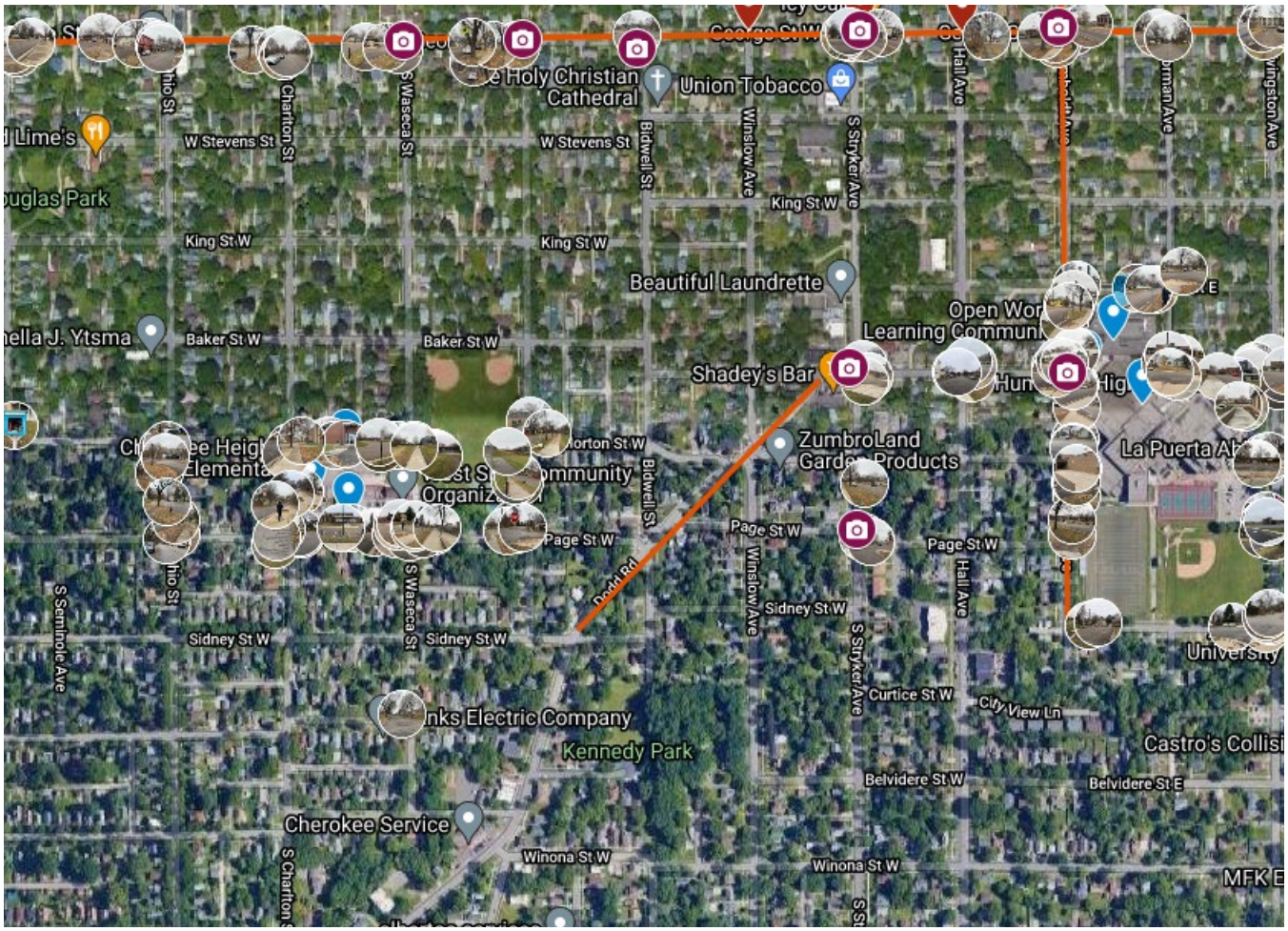
Weather or climate, distance between home and school, amount of traffic along the route, safety of intersections and crossings, and the time it takes to walk or bike to school were all issues that affected caregivers' decisions on whether or not to allow their children to walk or bike to school. Having a group of students to walk or bike with, better snow/ice removal in winter, safer intersections/crossings, and having a shorter distance to walk or bike would make OWL caregivers more comfortable allowing their children to bike or walk to school.

Humboldt High School: One caregiver survey was completed for Humboldt High School. The respondent estimated living one half to one mile from the school, and reports that their student is dropped off and picked up by a family vehicle.

The caregiver noted that their student does not walk to school due to the distance between home and school and traffic speeds along the route. Having a group of students to walk or bike with, incentives, games, or rewards for walking/biking, and better snow/ice removal in winter would make the Humboldt High School caregiver feel more comfortable with their student walking or biking.

EXISTING CONDITIONS MAP

The SRTS team developed an interactive existing conditions map that documents, via photos, videos, and images from Goole Earth, characteristics of the pedestrian, bike, and streets infrastructure along key routes and at key intersections leading to SPPS schools. The full map is available online here.



Appendix E. Caregiver Survey

This appendix includes a summary of a survey sent home to caregivers at Cherokee Heights Elementary School, Riverview Elementary School, Open World Learning Academy (OWL), and Humboldt High School in fall/winter 2020. The survey asks caregivers about walking, biking, and rolling habits, barriers, and attitudes. The summaries are direct exports from the National Safe Routes to School Data Collection System.

CAREGIVER SURVEY SUMMARY - CHEROKEE HEIGHTS ELEMENTARY SCHOOL, RIVERVIEW ELEMENTARY SCHOOL, OPEN WORLD LEARNING COMMUNITY (OWL), AND HUMBOLDT HIGH SCHOOL

This is a summary of caregiver survey data collected from families of students at Cherokee Heights Elementary, Riverview West Side School of Excellence, Open World Learning Community (OWL), and Humboldt High School in October and November 2020. All surveys were conducted online, as school was being held virtually due to the coronavirus pandemic. Schools shared links to the survey in Spanish and English with families.

School information

	Cherokee Heights	Riverview	Humboldt	OWL
# students	192	439	1,103	476
Grades offered	pK-5	pK-5	6-12	6-12
% receiving free/ reduced price lunch	76%	80%	89%	31%
% students of color	69%	88%	95%	41%
% students speaking language other than English at home	34%	51%	67%	20%

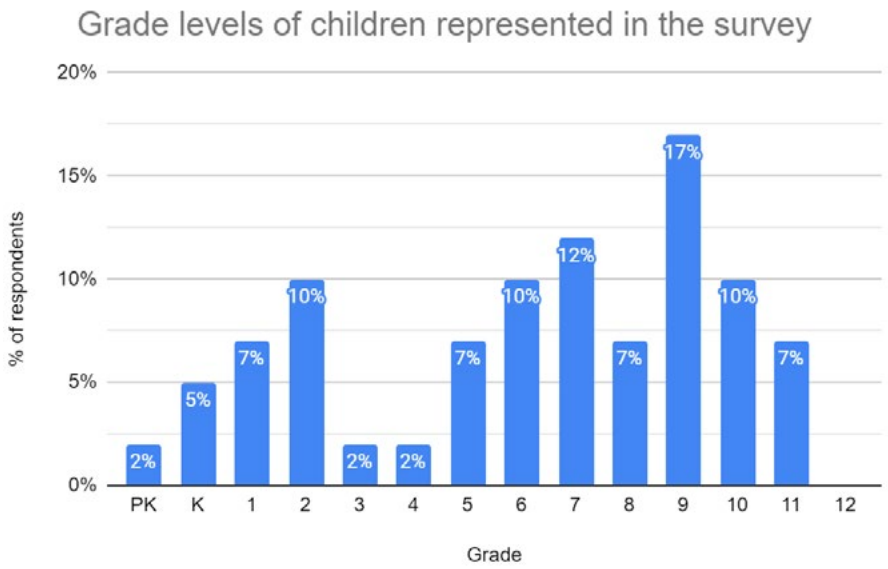
Data source: SPPS Data Center October 1, 2020 enrollment data (www.spps.org/Page/27991)

Who participated?

Caregivers completed a total of 41 surveys (37 in English and four in Spanish), with the following number of surveys completed at each school: 10 at Cherokee Heights Elementary, 5 at Riverview West Side School of Excellence, 1 at Humboldt High School, and 25 at Open World Learning Community.

Grade levels

Caregivers reported their students were in pre-K through 11th grade. In cases where a caregiver had more than one student, they were asked to complete the survey for the child with the next birthday.



Grade level of students represented in surveys by school

Cherokee Heights

Grade	#
PK	1
K	1
1	2
2	3
3	1
4	1
5	1
Total	10

Riverview

Grade	#
K	1
1	1
2	1
5	2
Total	5

Humboldt

Grade	#
11	1
Total	1

OWL

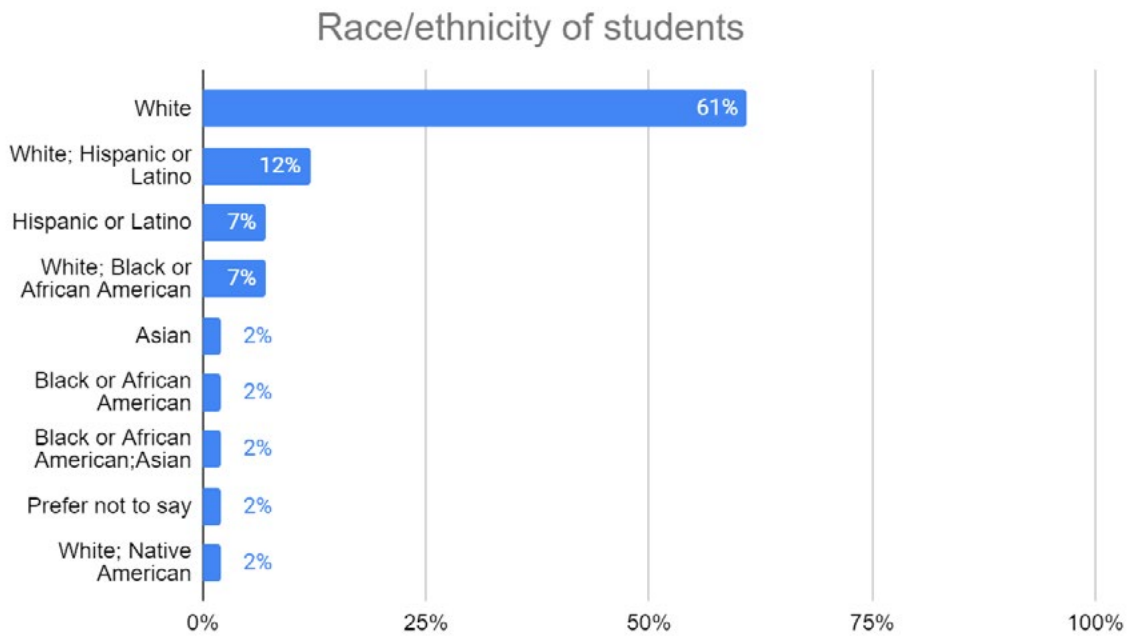
Grade	#
6	4
7	5
8	3
9	7
10	4
11	2
Total	25

Gender

Overall, about half of the children represented in the survey were female (49%) and half were male (51%). No caregivers selected the "other" option for gender.

Race/ethnicity of students

The majority of surveys (61%) were completed for students who are white only.

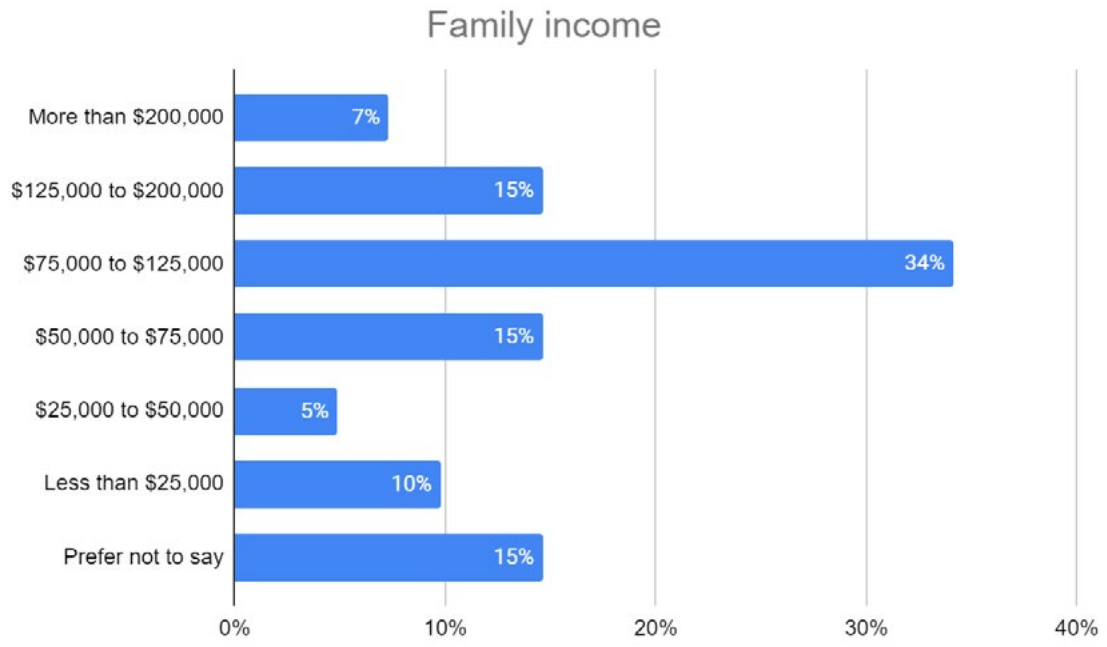


Race and ethnicity of students by school

	Cherokee Heights	Riverview	Humboldt	OWL	Total
White	7	0	1	17	25
White; Hispanic or Latino	1	3	0	1	5
Hispanic or Latino	1	1	0	1	3
White; Black or African American	0	0	0	3	3
Asian	0	0	0	1	1
Black or African American	0	1	0		1
Black or African American; Asian	0	0	0	1	1
White; Native American or American Indian	1	0	0		1
Prefer not to say	0	0	0	1	1
Total	10	5	1	25	41

Family income

Survey respondents tended to have higher incomes: 56% had household incomes over $75,000, while 29% had incomes below $75,000. Fifteen percent of respondents preferred not to share their income.

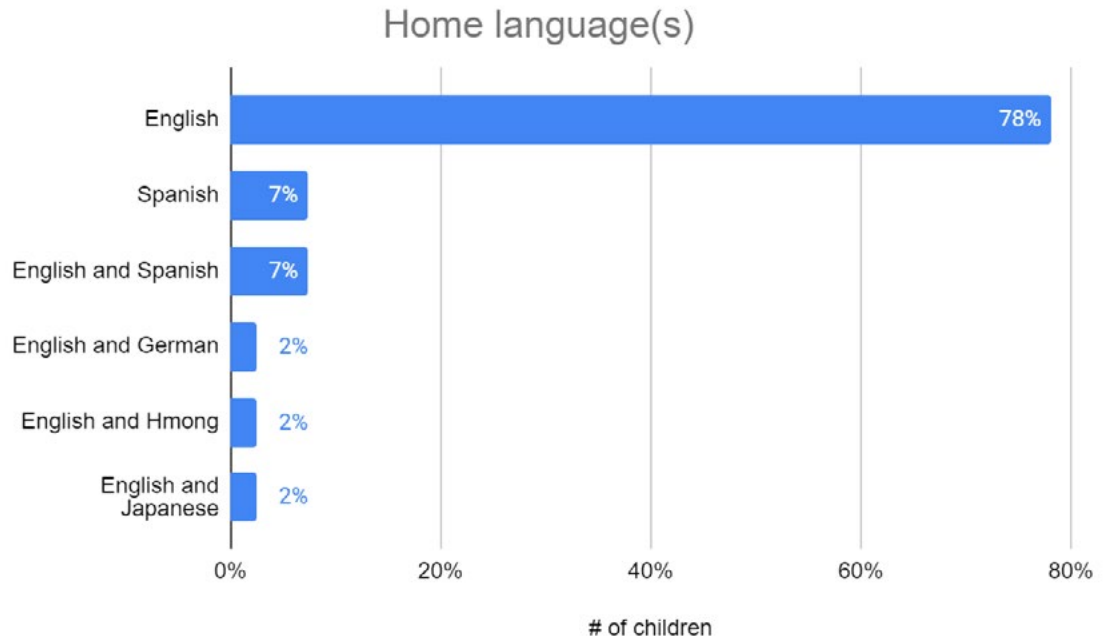


Family income by school

	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
More than $200,000	2	0	0	1	3	7%
$125,000 to $200,000	0	1	0	5	6	15%
$75,000 to $125,000	3	0	0	11	14	34%
$50,000 to $75,000	2	0	0	4	6	15%
$25,000 to $50,000	2	0	0	0	2	5%
Less than $25,000	0	4	0	0	4	10%
Prefer not to say	1	0	1	4	6	15%
Total	10	5	1	25	41	**100%**

Home language

Most respondents (78%) speak English only at home. Seven percent speak Spanish only at home, and an additional 7% speak both Spanish and English at home. The remaining 7% of respondents speak English and another language at home.

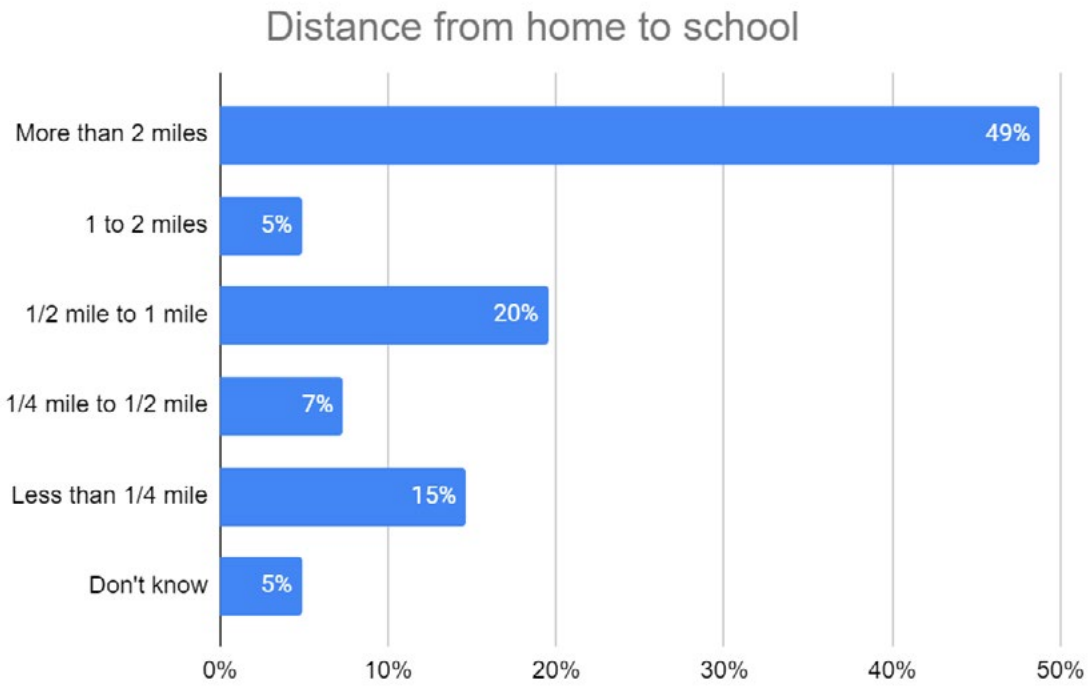


Home language by school

	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
English	9	2	1	20	32	78.0%
Spanish	0	3	0	0	3	7.3%
English and Spanish	1	0	0	2	3	7.3%
English and German	0	0	0	1	1	2.4%
English and Hmong	0	0	0	1	1	2.4%
English and Japanese	0	0	0	1	1	2.4%
Total	10	5	1	25	41	100%

Distance from home to school

Nearly half (49%) of respondents live more than two miles from school, but almost all students living that far from school attend OWL, which is a citywide magnet school. Forty-one percent of respondents live within 1 mile of school; this includes almost all of the students at Cherokee Heights, Riverview, and Humboldt.

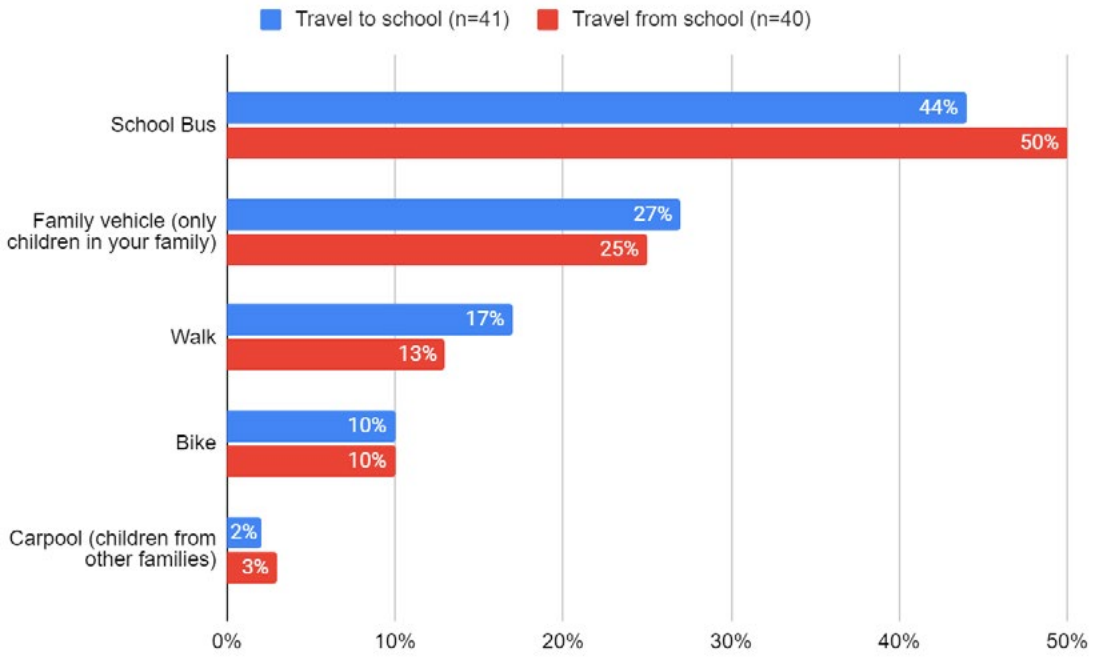


Distance from home to school by school

	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
More than 2 miles	0	1	0	19	20	48.8%
1 to 2 miles	1	0	0	1	2	4.9%
1/2 mile to 1 mile	2	1	1	4	8	19.5%
1/4 mile to 1/2 mile	1	1	0	1	3	7.3%
Less than 1/4 mile	6	0	0	0	6	14.6%
Don't know	0	2	0	0	2	4.9%
Total	10	5	1	25	41	100%

How children travel to and from school

Among respondents, the most common mode of travel is school bus, followed by family vehicle, walking, biking, and carpool. No respondents reported that their children ride transit.



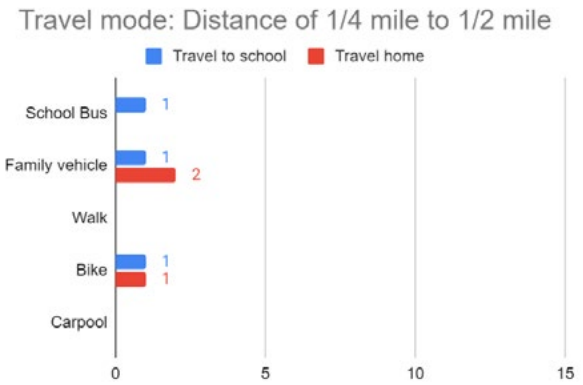
Mode of travel TO school by school

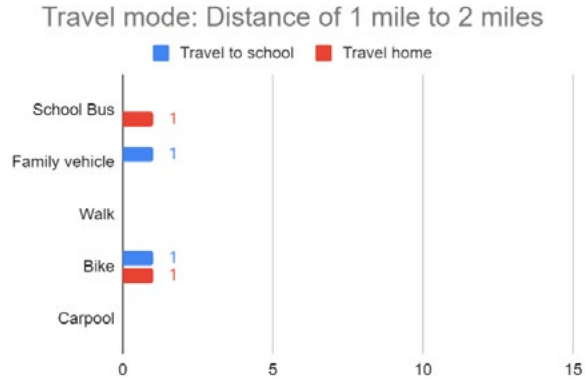
	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
School Bus	2	1	0	15	18	43.9%
Family vehicle	2	2	1	6	11	26.8%
Walk	6	0	0	1	7	17.1%
Bike	0	2	0	2	4	9.8%
Carpool	0	0	0	1	1	2.4%
Total	10	5	1	25	41	100%

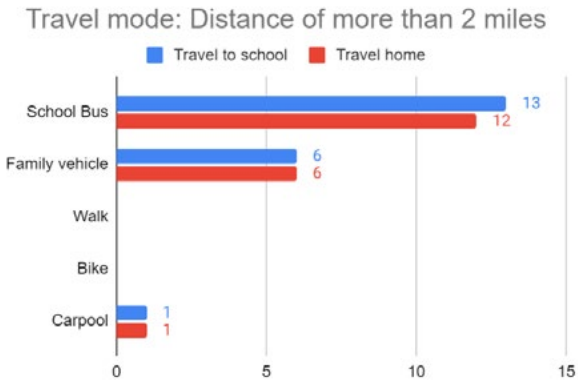
Mode of travel FROM school by school

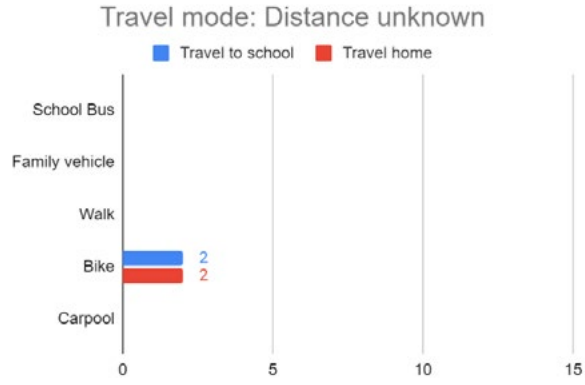
	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
School Bus	5	1	0	14	20	50.0%
Family vehicle	2	2	1	5	10	25.0%
Walk	3	0	0	2	5	12.5%
Bike	0	2	0	2	4	10.0%
Carpool	0	0	0	1	1	2.5%
Total	10	5	1	24	40	100.0%

Mode of travel to and from school by distance between school and home









Mode of travel TO school by distance between home to school: All schools

	Less than 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	More than 2 miles	Don't know	Total (#)	Total (%)
School Bus	0	1	4	0	13	0	18	44%
Family vehicle	0	1	3	1	6	0	11	27%
Walk	6	0	1	0	0	0	7	17%
Bike	0	1	0	1	0	2	4	10%
Carpool	0	0	0	0	1	0	1	2%
Total (#)	6	3	8	2	20	2	41	100%
Total (%)	15%	7%	20%	5%	49%	5%	100%	

Mode of travel FROM school by distance between home to school: All schools

	Less than 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	More than 2 miles	Don't know	Total (#)	Total (%)
School Bus	3	0	4	1	12	0	20	50%
Family vehicle	0	2	2	0	6	0	10	25%
Walk	3	0	2	0	0	0	5	13%
Bike	0	1	0	1	0	2	4	10%
Carpool	0	0	0	0	1	0	1	3%
Total (#)	6	3	8	2	19	2	40	100%
Total (%)	15%	7%	20%	5%	49%	5%	100%	

Mode of travel to (AM) and from (PM) school by distance between home and school: Cherokee Heights

	< 1/4 mile		1/4 to 1/2 mile		½ to 1 mile		1 to 2 miles		> than 2 miles		Don't know		Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
School Bus	0	3	1	0	1	1	0	0	0	0	0	0	2	5
Family vehicle	0	0	0	1	1	1	1	1	0	0	0	0	2	2
Walk	6	3	0	0	0	0	0	0	0	0	0	0	6	3
Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpool	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	1	1		2	1	1	0	0	0	0	10	10

Mode of travel to (AM) and from (PM) school by distance between home and school: Riverview

	< 1/4 mile		1/4 to 1/2 mile		½ to 1 mile		1 to 2 miles		> than 2 miles		Don't know		Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
School Bus	0	0	0	0	1	1	0	0	0	0	0	0	1	1
Family vehicle	0	0	1	1	0	0	0	0	1	1	0	0	2	2
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike	0	0	0	0	0	0	0	0	0	0	2	2	2	2
Carpool	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	1	1	0	0	1	1	2	2	5	5

Mode of travel to (AM) and from (PM) school by distance between home and school: Humboldt

	< 1/4 mile		1/4 to 1/2 mile		½ to 1 mile		1 to 2 miles		> than 2 miles		Don't know		Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Family vehicle	0	0	0	0	1	1	0	0	0	0	0	0	1	1
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpool	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	0	0	0	1	1

Mode of travel to (AM) and from (PM) school by distance between home and school: OWL

	< 1/4 mile		1/4 to 1/2 mile		½ to 1 mile		1 to 2 miles		> than 2 miles		Don't know		Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
School Bus	0	0	0	0	2	2	0	0	13	12	0	0	15	14
Family vehicle	0	0	0	0	1	0	0	0	5	5	0	0	6	5
Walk	0	0	0	0	1	2	0	0	0	0	0	0	1	2
Bike	0	0	1	1	0	0	1	1	0	0	0	0	2	2
Carpool	0	0	0	0	0	0	0	0	1	1	0	0	1	1
Total	0	0	1	1	4	4	1	1	19	18	0	0	25	24

Caregiver permission for walking and biking

Caregivers report that most children (68%) have not asked permission to walk/bike to school. They also reported a range of grades at which they would feel comfortable allowing children to walk or bike without an adult. One fifth of respondents would not be comfortable allowing their child to walk at any grade.

Children who have asked permission to walk/bike by distance between home and school: All schools

	Less than 1/4 mile	1/4 mile to 1/2 mile	1/2 mile to 1 mile	1 to 2 miles	More than 2 miles	Don't know	Total (#)	Total (%)
Yes	0	3	5	1	4	0	13	31.7%
No	6	0	3	1	16	2	28	68.3%
Total	6	3	8	2	20	2	41	100%

Children who have asked permission to walk/bike by distance between home and school: Cherokee Heights

	< 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Don't know	Total (#)
Yes	0	1	1	0	0	0	2
No	6	0	1	1	0	0	8
Total	6	1	1	1	0	0	10

Children who have asked permission to walk/bike by distance between home and school: Riverview

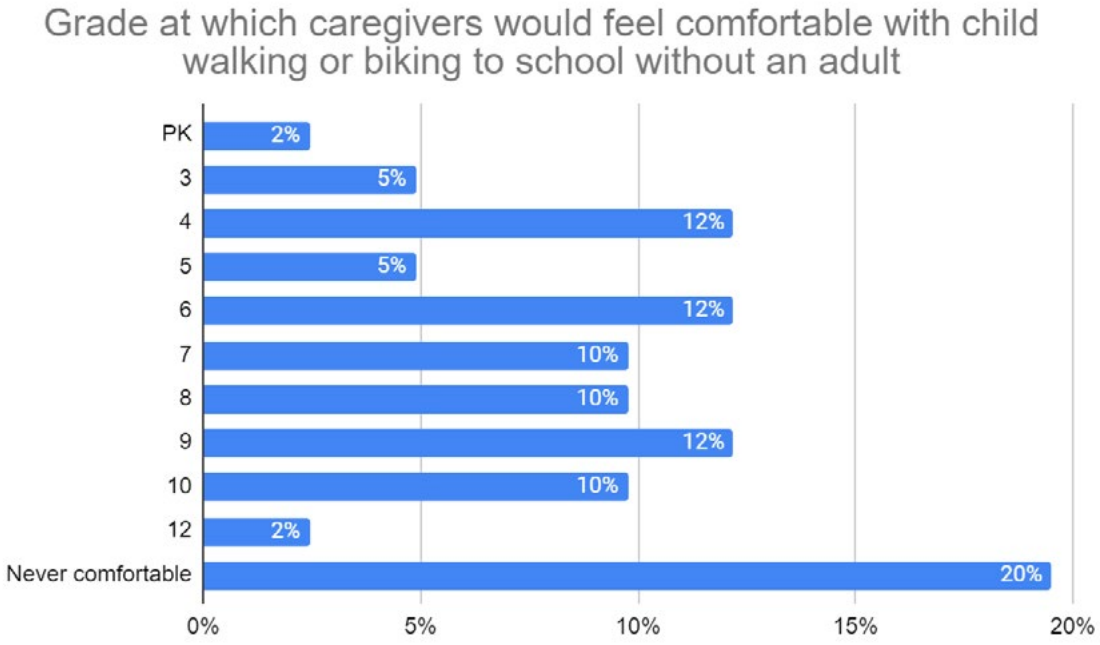
	< 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Don't know	Total (#)
Yes	0	1	0	0	0	0	1
No	0	0	1	1	0	2	4
Total	0	1	1	1	0	2	5

Children who have asked permission to walk/bike by distance between home and school: Humboldt

	< 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Don't know	Total (#)
Yes	0	0	1	0	0	0	1
No	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	1

Children who have asked permission to walk/bike between home and school: OWL

	< 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Don't know	Total (#)
Yes	0	1	3	1	4	0	9
No	0	0	1	0	15	0	16
Total	0	1	4	1	19	0	25



Grade at which caregivers would feel comfortable with child walking or biking to school without an adult by distance between home and school: All schools

	Distance from school to home							
Grade	< 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Don't know	Total (#)	Total (%)
pre-K	0	0	0	1	0	0	1	2%
3rd grade	2	0	0	0	0	0	2	5%
4th grade	3	1	0	0	1	0	5	12%
5th grade	0	0	1	1	0	0	2	5%
6th grade	0	1	3	0	1	0	5	12%
7th grade	0	0	1	0	3	0	4	10%
8th grade	0	0	0	0	4	0	4	10%
9th grade	0	0	2	0	3	0	5	12%
10th grade	0	1	0	0	3	0	4	10%
12th grade	0	0	0	0	1	0	1	2%
Not comfortable at any grade	1	0	1	0	4	2	8	20%
Total	6	3	8	2	20	2	41	100%

Grade at which caregivers would feel comfortable with child walking or biking to school without an adult by distance between home and school: Cherokee Heights

	Distance from home to school				
Grade	<1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	Total
3rd grade	2	0	0	0	2
4th grade	3	0	0	0	3
5th grade	0	0	1	1	2
6th grade	0	0	1	0	1
10th grade	0	1	0	0	1
I would not feel comfortable at any grade	1	0	0	0	1
Total	6	1	2	1	10

Grade at which caregivers would feel comfortable with child walking or biking to school without an adult by distance between home and school: Riverview

	Distance from home to school				
Grade	1/4 to 1/2 mile	1/2 to 1 mile	> 2 miles	Don't know	Total
6	1	0	0	0	1
10	0	0	1	0	1
I would not feel comfortable at any grade	0	1	0	2	3
Total	1	1	1	2	5

Grade at which caregivers would feel comfortable with child walking or biking to school without an adult by distance between home and school: Humboldt

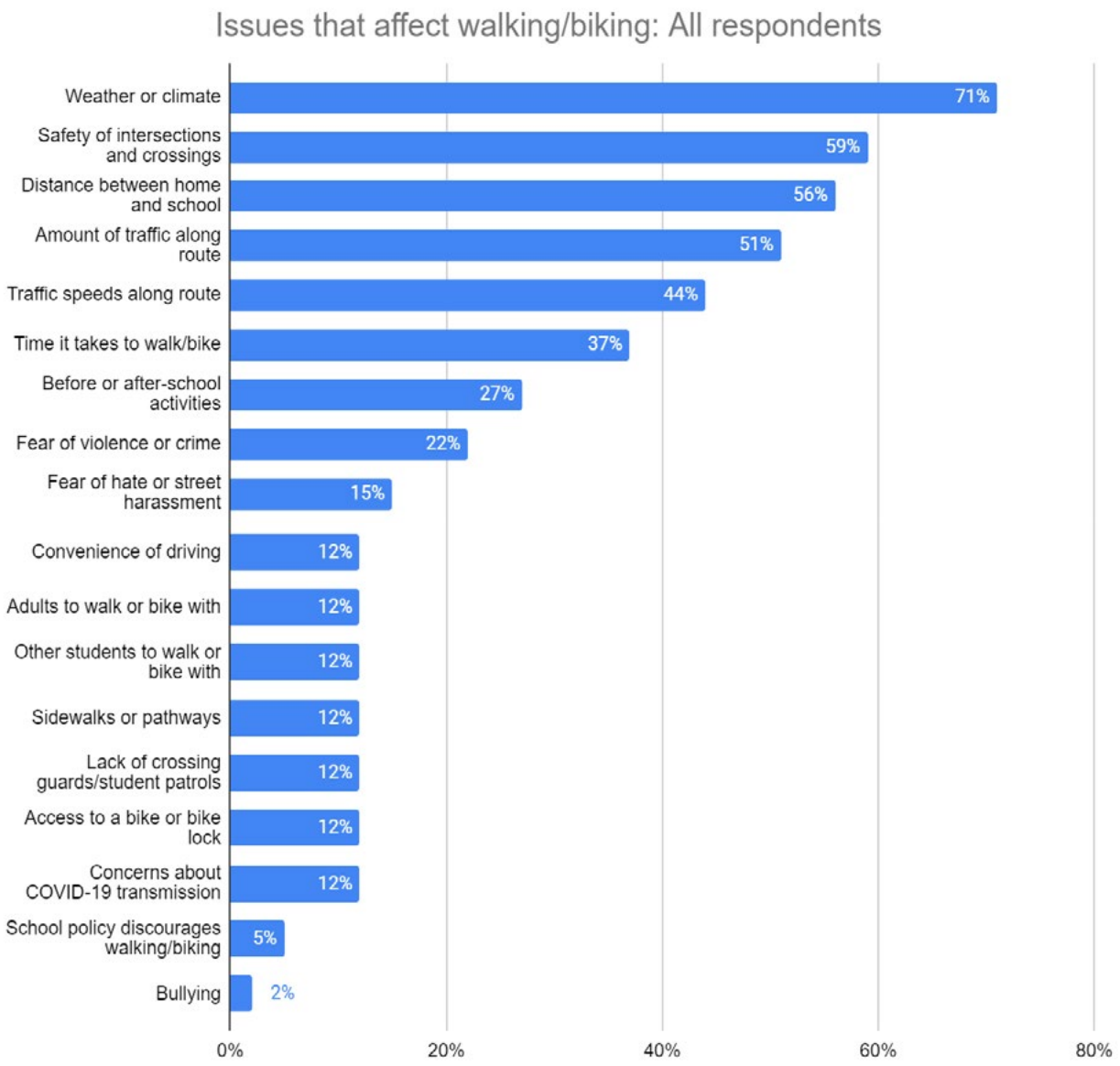
	Distance from home to school	
Grade	1/2 to 1 mile	Total
9th grade	1	1
Total	1	1

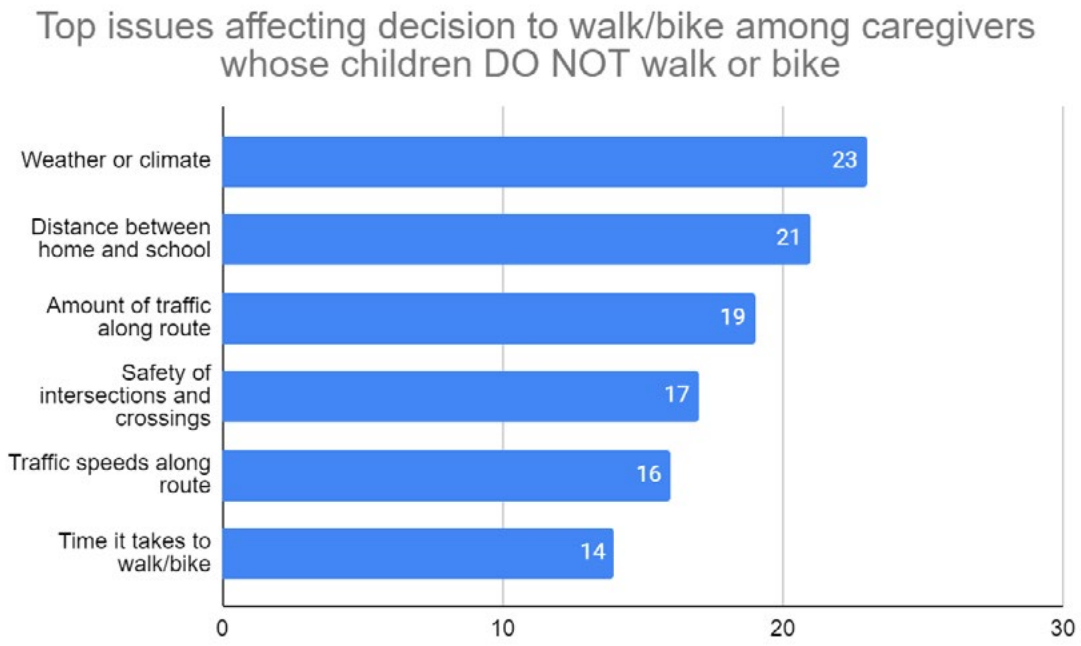
Grade at which caregivers would feel comfortable with child walking or biking to school without an adult by distance between home and school: OWL

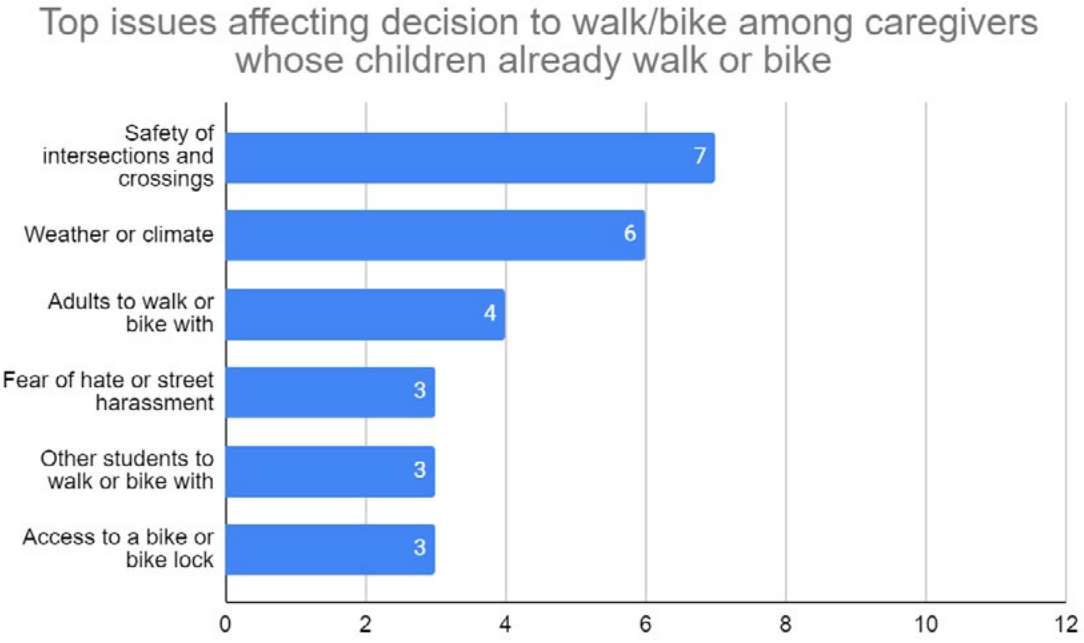
	Distance from home to school				
Grade	1/4 to 1/2 mile	1/2 to 1 mile	1 to 2 miles	> 2 miles	Total
pre-K	0	0	1	0	1
4th grade	1	0	0	1	2
6th grade	0	2	0	1	3
7th grade	0	1	0	3	4
8th grade	0	0	0	4	4
9th grade	0	1	0	3	4
10th grade	0	0	0	2	2
12th grade	0	0	0	1	1
I would not feel comfortable at any grade	0	0	0	4	4
Total	1	4	1	19	25

Issues affecting the decision to walk or bike to school

Overall, the majority of caregivers identified the following three issues that affect their decision allow children to walk/bike to school: weather or climate, safety of intersections and crossings, and distance between home and school. Among the 29 respondents whose children do not walk and bike, a majority cited the following six issues (from most to least commonly cited): weather or climate, distance between home and school, amount of traffic along route, safety of intersections and crossings, traffic speeds along route, and time it takes to walk/bike. Among the 12 respondents whose children already walk or bike, the majority cited the following six issues (from most to least commonly cited): safety of intersections and crossings; weather or climate; adults to walk or bike with; fear of hate or street harassment based on race, ethnicity, and/or gender identity; other students to walk or bike with; and access to a bike or bike lock.




Top issues affecting decision to walk/bike among caregivers whose children DO NOT walk or bike
Weather or climate
23
Distance between home and school
21
Amount of traffic along route
19
Safety of intersections and crossings
17
Traffic speeds along route
16
Time it takes to walk/bike
14
0
10
20
30


Top issues affecting decision to walk/bike among caregivers whose children already walk or bike
Safety of intersections and crossings
7
Weather or climate
6
Adults to walk or bike with
4
Fear of hate or street harassment
3
Other students to walk or bike with
3
Access to a bike or bike lock
3
0
2
4
6
8
10
12

Issues that affect caregivers' decisions to allow children to walk or bike: All schools

	Children DO NOT walk or bike (29 respondents)	Children walk or bike (12 respondents)	Total (41 respondents)	Total (%)
Weather or climate	23	6	29	71%
Safety of intersections and crossings	17	7	24	59%
Distance between home and school	21	2	23	56%
Amount of traffic along route	19	2	21	51%
Traffic speeds along route	16	2	18	44%
Time it takes to walk/bike	14	1	15	37%
Before or after-school activities	9	2	11	27%
Fear of violence or crime	7	2	9	22%
Fear of hate or street harassment based on race, ethnicity, and/or gender identity	3	3	6	15%
Convenience of driving	5	0	5	12%
Adults to walk or bike with	1	4	5	12%
Other students to walk or bike with	2	3	5	12%
Sidewalks or pathways	4	1	5	12%
Lack of crossing guards/student patrols	3	2	5	12%
Access to a bike or bike lock	2	3	5	12%
Concerns about COVID-19 transmission	3	2	5	12%
School policy discourages/prohibits walking/biking	0	2	2	5%
Bullying	1	0	1	2%
Total	29	12	41	100%

Issues that affect caregivers' decisions to allow children to walk or bike: Cherokee Heights

	Children DO NOT walk or bike (4 respondents)	Children walk or bike (6 respondents)	Total (10 respondents)
Safety of intersections and crossings	4	5	9
Traffic speeds along route	4	0	4
Amount of traffic along route	4	0	4
Weather or climate	2	1	3
Time it takes to walk/bike	2	0	2
Adults to walk or bike with	0	2	2
Other students to walk or bike with	0	2	2
Lack of crossing guards/student patrols	1	1	2
Access to a bike or bike lock	1	1	2
Distance between home and school	1	0	1
Before or after-school activities	1	0	1
Fear of violence or crime	1	0	1
Convenience of driving	0	0	0
Fear of hate or street harassment based on race, ethnicity, and/or gender identity	0	0	0
Sidewalks or pathways	0	0	0
Bullying	0	0	0
School policy discourages/prohibits walking/biking	0	0	0
Concerns about COVID-19 transmission	0	0	0

Issues that affect caregivers' decisions to allow children to walk or bike: Riverview

	Children DO NOT walk or bike (3 respondents)	Children walk or bike (2 respondents)	Total (5 respondents)
Weather or climate	3	2	5
Distance between home and school	2	2	4
Concerns about COVID-19 transmission	2	2	4
Fear of hate or street harassment based on race, ethnicity, and/or gender identity	1	2	3
Fear of violence or crime	2	1	3
Traffic speeds along route	2	0	2
Access to a bike or bike lock	0	2	2
Convenience of driving	1	0	1
Time it takes to walk/bike	1	0	1
Before or after-school activities	1	0	1
Amount of traffic along route	1	0	1
Adults to walk or bike with	0	1	1
Safety of intersections and crossings	1	0	1
Lack of crossing guards/student patrols	0	1	1
Bullying	1	0	1
School policy discourages/prohibits walking/biking	0	1	1
Other students to walk or bike with	0	0	0
Sidewalks or pathways	0	0	0

Issues that affect caregivers' decisions to allow children to walk or bike: Humboldt

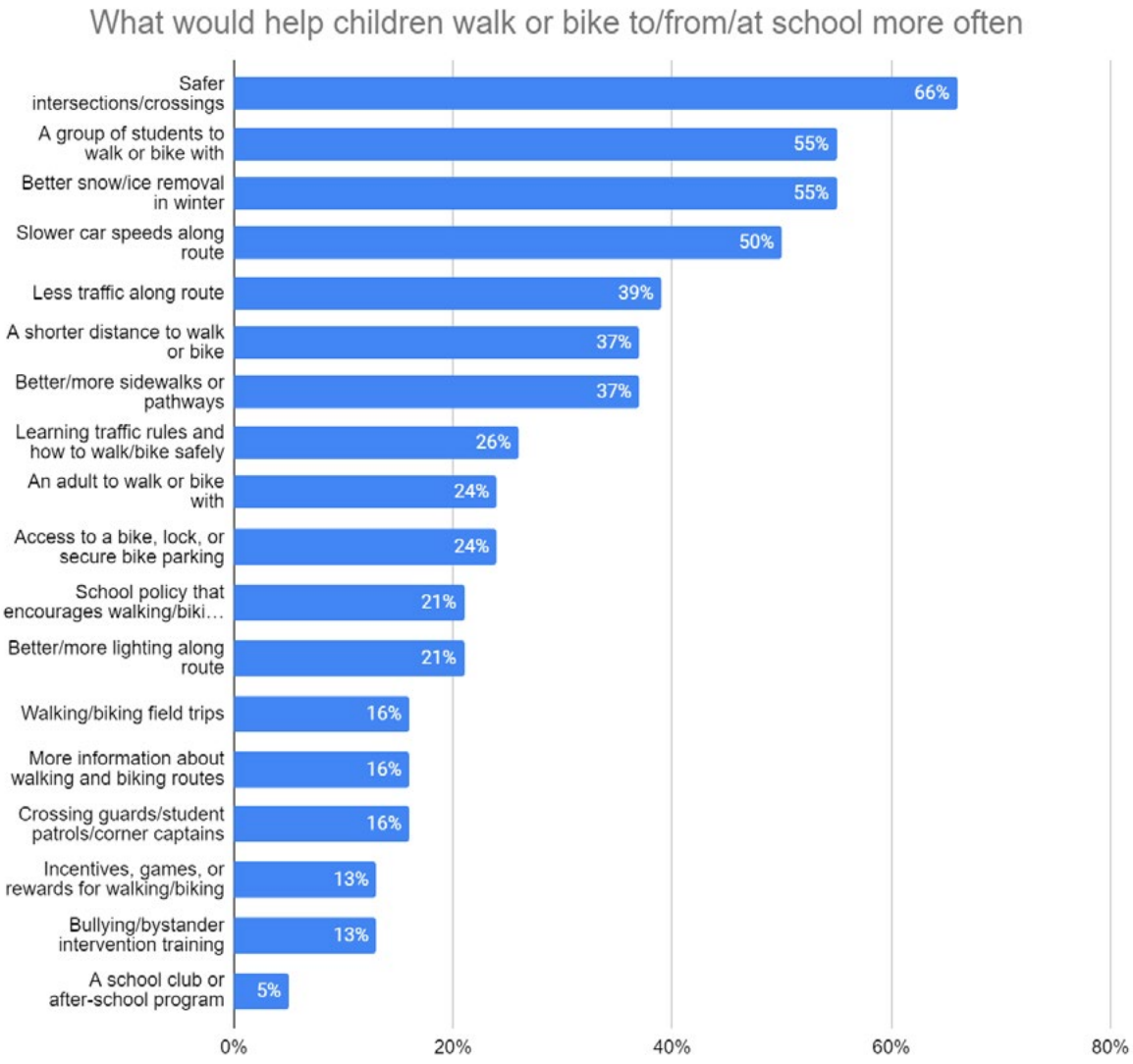
In the survey from a caregiver of a Humboldt student, the caregiver reported that their child does not walk. The two issues the caregiver cited that affect this decision are the distance between home and school and traffic speeds along the route.

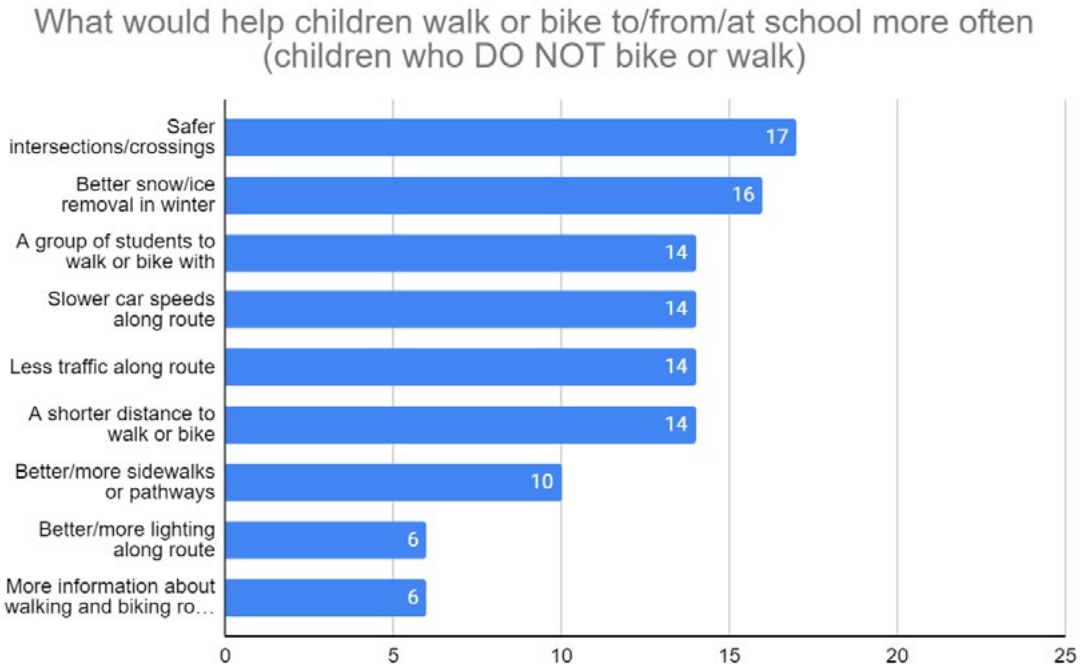
Issues that affect caregivers' decisions to allow children to walk or bike: OWL

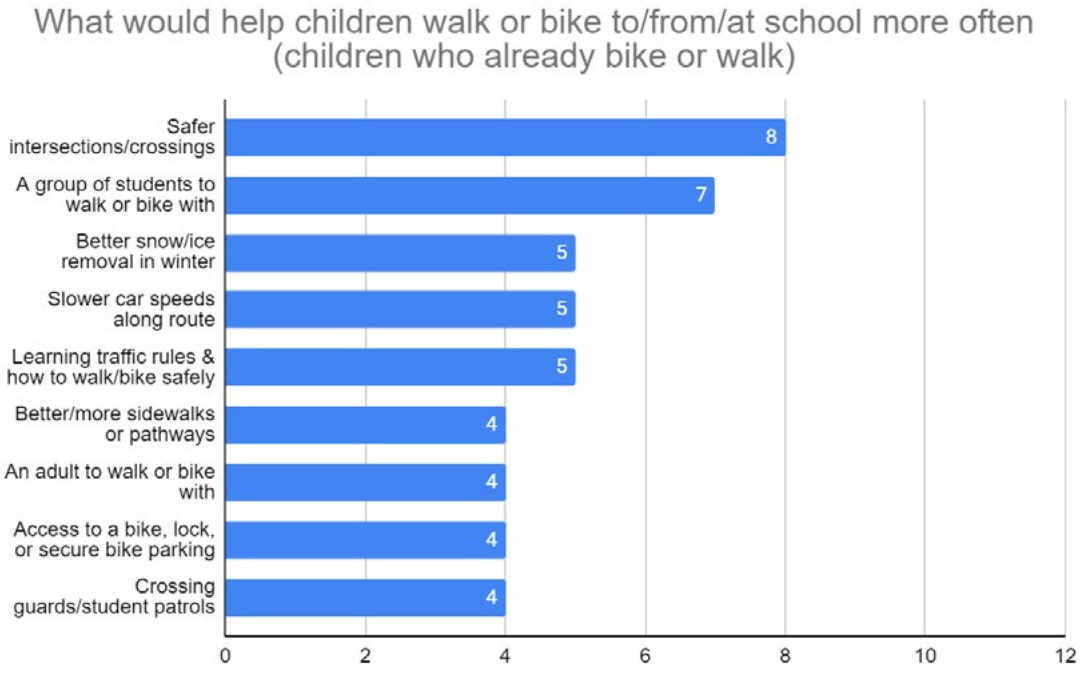
	Children DO NOT walk or bike (21 respondents)	Children walk or bike (4 respondents)	Total (25 respondents)
Weather or climate	18	3	21
Distance between home and school	17	0	17
Amount of traffic along route	14	2	16
Safety of intersections and crossings	12	2	14
Time it takes to walk/bike	11	1	12
Traffic speeds along route	9	2	11
Before or after-school activities	7	2	9
Sidewalks or pathways	4	1	5
Fear of violence or crime	4	1	5
Convenience of driving	4	0	4
Fear of hate or street harassment based on race, ethnicity, and/or gender identity	2	1	3
Other students to walk or bike with	2	1	3
Adults to walk or bike with	1	1	2
Lack of crossing guards/student patrols	2	0	2
School policy discourages/prohibits walking/biking	0	1	1
Access to a bike or bike lock	1	0	1
Concerns about COVID-19 transmission	1	0	1
Bullying	0	0	0

What would help children walk or bike to/from/at school more often

Overall, a majority of respondents said that the following things would help their children walk or bike to/from/at school more often: safer intersections/crossings, a group of students to walk or bike with, better snow/ice removal in winter, and slower car speeds along the route. The majority of respondents whose children DO NOT walk or bike said the following would help: safer intersections/crossings, better snow/ice removal in winter, a group of students to walk or bike with, a shorter distance to walk or bike, less traffic along route, and slower car speeds along the route. The majority of respondents whose children already walk and bike said the following would help: safer intersections/crossings and a group of students to walk or bike with.




What would help children walk or bike to/from/at school more often (children who DO NOT bike or walk)
Safer intersections/crossings
17
Better snow/ice removal in winter
16
A group of students to walk or bike with
14
Slower car speeds along route
14
Less traffic along route
14
A shorter distance to walk or bike
14
Better/more sidewalks or pathways
10
Better/more lighting along route
6
More information about walking and biking ro…
6
0
5
10
15
20
25


What would help children walk or bike to/from/at school more often (children who already bike or walk)
Safer intersections/crossings
8
A group of students to walk or bike with
7
Better snow/ice removal in winter
5
Slower car speeds along route
5
Learning traffic rules & how to walk/bike safely
5
Better/more sidewalks or pathways
4
An adult to walk or bike with
4
Access to a bike, lock, or secure bike parking
4
Crossing guards/student patrols
4
0
2
4
6
8
10
12

What would help children walk or bike to/from/at school more often: All schools

	Children DO NOT walk or bike (26 respondents)	Children walk or bike (12 respondents)	Overall (38 respondents)	% of overall
Safer intersections/crossings	17	8	25	66%
Better snow/ice removal in winter	16	5	21	55%
A group of students to walk or bike with	14	7	21	55%
Slower car speeds along route	14	5	19	50%
Less traffic along route	14	1	15	39%
A shorter distance to walk or bike	14	0	14	37%
Better/more sidewalks or pathways	10	4	14	37%
Learning traffic rules and regulations and how to walk/bike safely	5	5	10	26%
An adult to walk or bike with	5	4	9	24%
Access to a bike, bike lock, or secure bike parking	5	4	9	24%
Better/more lighting along route	6	2	8	21%
School policy that encourages walking/biking	5	3	8	21%
More information about walking and biking routes	6	0	6	16%
Walking/biking field trips	4	2	6	16%
Crossing guards/student patrols/corner captains	2	4	6	16%
Incentives, games, or rewards for walking/biking	3	2	5	13%
Bullying, hate, and harassment prevention and bystander intervention training	3	2	5	13%
A school club or after-school program	2	0	2	5%

What would help children walk or bike to/from/at school more often: Cherokee Heights

	Children DO NOT walk or bike (4 respondents)	Children walk or bike (6 respondents)	Overall (10 respondents)
Safer intersections/crossings	4	4	8
A group of students to walk or bike with	3	3	6
Slower car speeds along route	3	1	4
Learning traffic rules and regulations and how to walk/bike safely	1	2	3
An adult to walk or bike with	1	2	3
Better snow/ice removal in winter	2	1	3
Less traffic along route	3	0	3
Better/more sidewalks or pathways	1	1	2
Better/more lighting along route	2	0	2
School policy that encourages walking/biking	0	2	2
Access to a bike, bike lock, or secure bike parking	1	1	2
A shorter distance to walk or bike	1	0	1
Walking/biking field trips	0	1	1
Incentives, games, or rewards for walking/biking	0	1	1
More information about walking and biking routes	1	0	1
Bullying, hate, and harassment prevention and bystander intervention training	1	0	1
Crossing guards/student patrols/corner captains	0	1	1
A school club or after-school program	0	0	0

What would help children walk or bike to/from/at school more often: Riverview

	Children DO NOT walk or bike (3 respondents)	Children walk or bike (2 respondents)	Overall (15 respondents)
Slower car speeds along route	3	2	5
Safer intersections/crossings	2	2	4
An adult to walk or bike with	2	2	4
Better/more sidewalks or pathways	2	2	4
Learning traffic rules and regulations and how to walk/bike safely	1	2	3
Better snow/ice removal in winter	2	1	3
Access to a bike, bike lock, or secure bike parking	1	2	3
A shorter distance to walk or bike	2	0	2
Less traffic along route	2	0	2
Bullying, hate, and harassment prevention and bystander intervention training	1	1	2
Crossing guards/student patrols/corner captains	1	1	2
More information about walking and biking routes	1	0	1
A school club or after-school program	1	0	1
A group of students to walk or bike with	0	0	0
Walking/biking field trips	0	0	0
Incentives, games, or rewards for walking/biking	0	0	0
School policy that encourages walking/biking	0	0	0
Better/more lighting along route	0	0	0

What would help children walk or bike to/from/at school more often: Humboldt

In the survey from a caregiver of a Humboldt student, the caregiver reported that their child does not walk. The caregiver said the following would help their child walk or bike more: a group of students to walk or bike with; incentives, games, or rewards for walking/biking; and better snow/ice removal in winter.

What would help children walk or bike to/from/at school more often: OWL

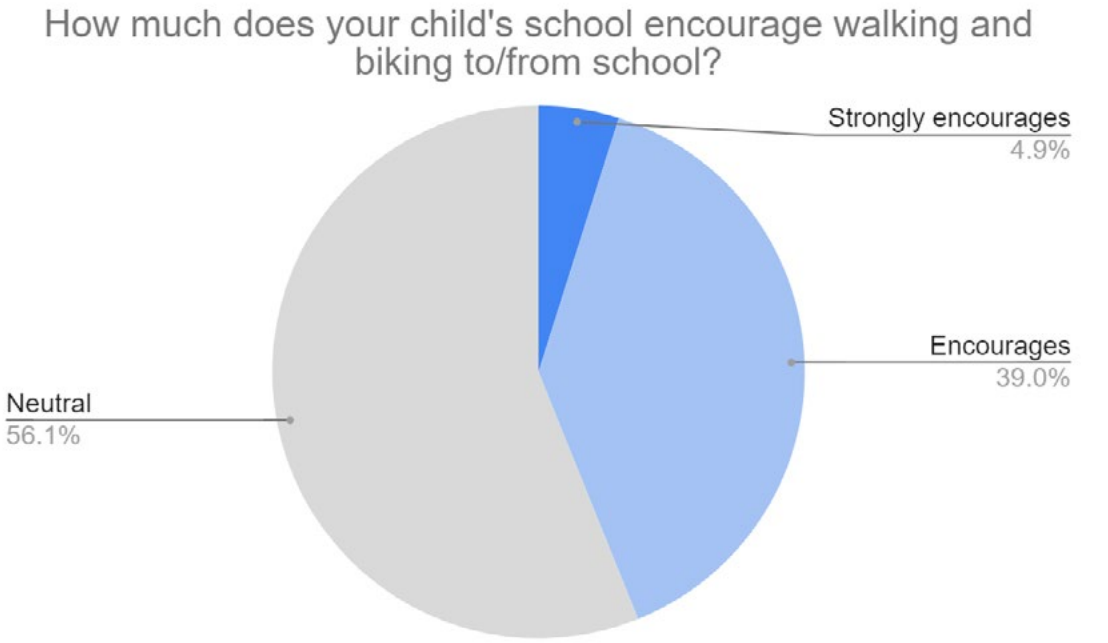
	Children DO NOT walk or bike (18 respondents)	Children walk or bike (4 respondents)	Overall (22 respondents)
A group of students to walk or bike with	10	4	14
Better snow/ice removal in winter	11	3	14
Safer intersections/crossings	11	2	13
A shorter distance to walk or bike	11	0	11
Less traffic along route	9	1	10
Slower car speeds along route	8	2	10
Better/more sidewalks or pathways	7	1	8
School policy that encourages walking/biking	5	1	6
Better/more lighting along route	4	2	6
Walking/biking field trips	4	1	5
Learning traffic rules and regulations and how to walk/bike safely	3	1	4
More information about walking and biking routes	4	0	4
Access to a bike, bike lock, or secure bike parking	3	1	4
Incentives, games, or rewards for walking/biking	2	1	3
Crossing guards/student patrols/corner captains	1	2	3
An adult to walk or bike with	2	0	2
Bullying, hate, and harassment prevention and bystander intervention training	1	1	2
A school club or after-school program	1	0	1

More about walking and biking to school

Caregivers also responded to questions about how much their school encourages biking and walking, how much fun biking and walking is for their child, and how healthy walking and biking is for their child.

How much schools encourage biking and walking

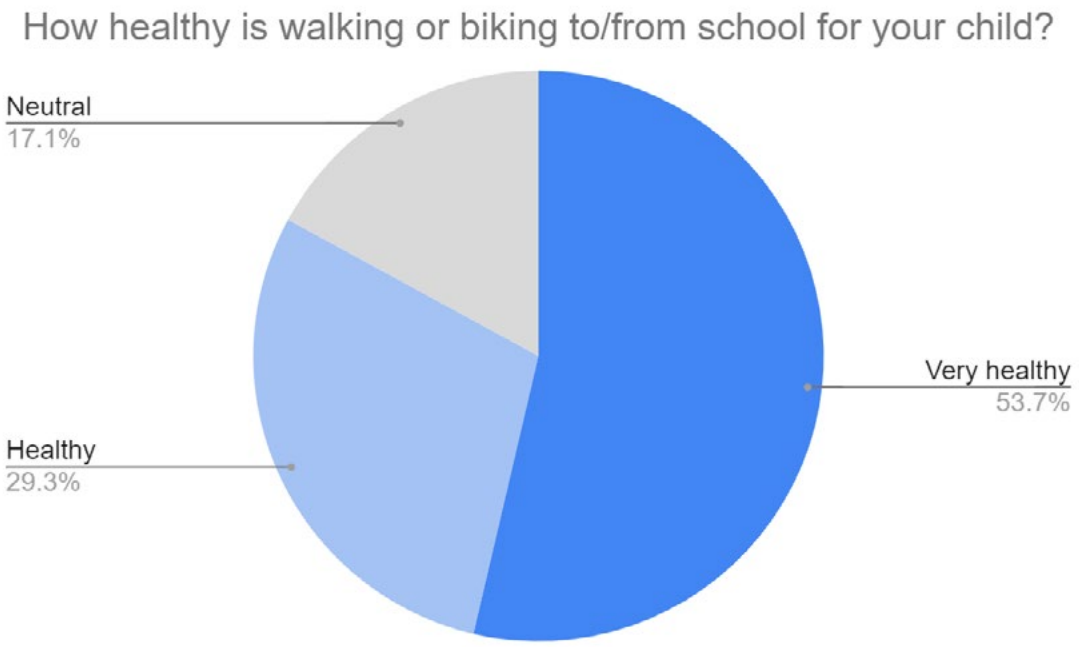
Most respondents (56%) were neutral about how much their school encourages biking and walking. The remaining respondents (44%) said that their school encourages or strongly encourages biking and walking. No caregivers reported that their school discourages biking or walking.



	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
Strongly encourages	1	0	0	1	2	5%
Encourages	3	0	0	13	16	39%
Neutral	6	5	1	11	23	56%
Discourages	0	0	0	0	0	0%
Strongly discourages	0	0	0	0	0	0%
Total	10	5	1	25	41	100%

How fun walking and biking to school is for children

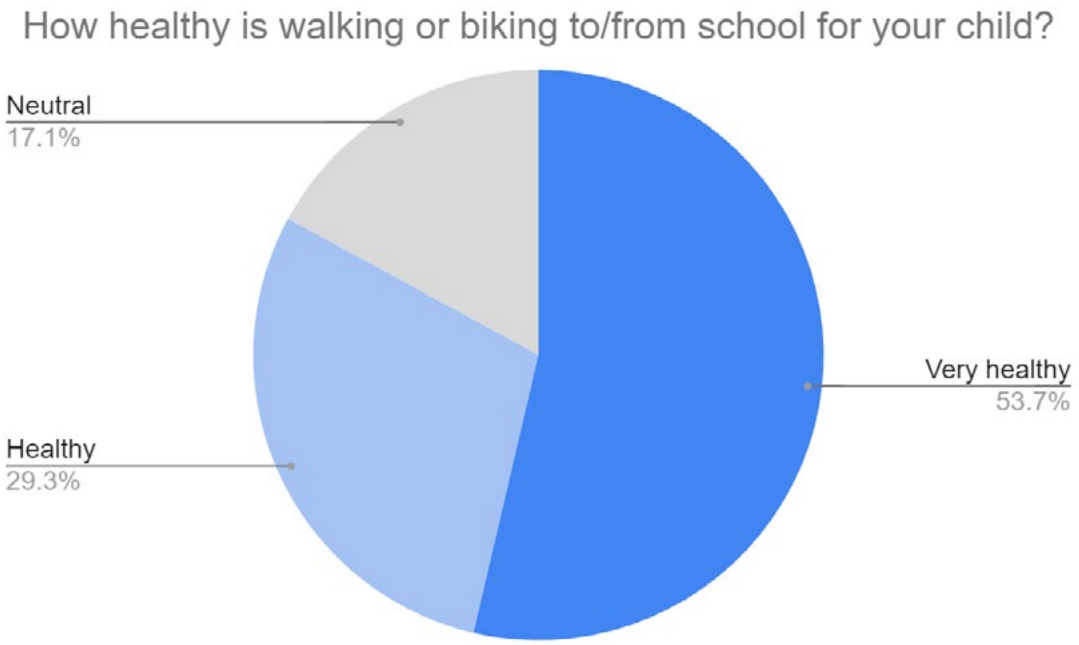
Most respondents (54%) were neutral about how fun walking and biking to school is for their child. Thirty-seven percent said that walking and biking to school was fun for their child, and 10% said it was boring.



	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
Very fun	7	0	0	1	8	20%
Fun	0	0	0	7	7	17%
Neutral	3	4	0	15	22	54%
Boring	0	1	1	2	4	10%
Very boring	0	0	0	0	0	0%
Total	10	5	1	25	41	100%

How healthy caregivers think walking and biking to school is for children

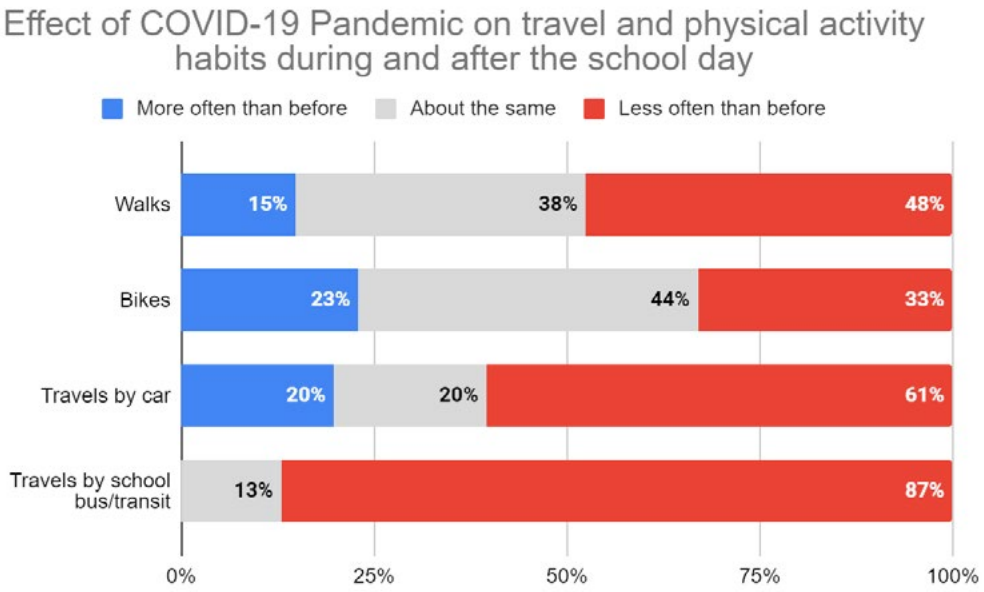
The vast majority of caregivers who responded to the survey think that walking and biking to school is very healthy (54%) or healthy (30%) for their children. Seventeen percent of respondents were neutral.



	Cherokee Heights	Riverview	Humboldt	OWL	Total (#)	Total (%)
Very healthy	7	2	0	13	8	54%
Healthy	2	1	1	8	7	29%
Neutral	1	2	0	4	22	17%
Unhealthy	0	0	0	0	4	0%
Very unhealthy	0	0	0	0	0	0%
Total	10	5	1	25	41	100%

Walking, biking and physical activity during the COVID-19 pandemic

The survey also asked caregivers to share how the COVID-19 pandemic impacted travel and physical activity. They were also asked if they had participated in any social distancing/distance learning activities related to biking and walking. Many caregivers reported their children participating in less travel than before. Most families participated in walking and biking during the pandemic, both for recreation and for travel.



How has the COVID-19 pandemic affected your child's travel/physical activity habits both during and after the school day? (All schools)

	Walks		Bikes		Travels by car		Travels by school bus/transit	
	#	%	#	%	#	%	#	%
More often than before	6	15%	9	23%	8	20%	0	0%
About the same	15	38%	17	44%	8	20%	5	13%
Less often than before	19	48%	13	33%	25	61%	25	87%
Total # of respondents	40	100%	39	100%	41	100%	39	100%

How has the COVID-19 pandemic affected your child's travel/physical activity habits both during and after the school day? (Cherokee Heights)

	Walks	Bikes	Travels by car	Travels by school bus/transit
More often than before	1	2	5	0
About the same	3	6	1	1
Less often than before	5	1	4	8
Total # of respondents	9	9	10	9

How has the COVID-19 pandemic affected your child's travel/physical activity habits both during and after the school day? (Riverview)

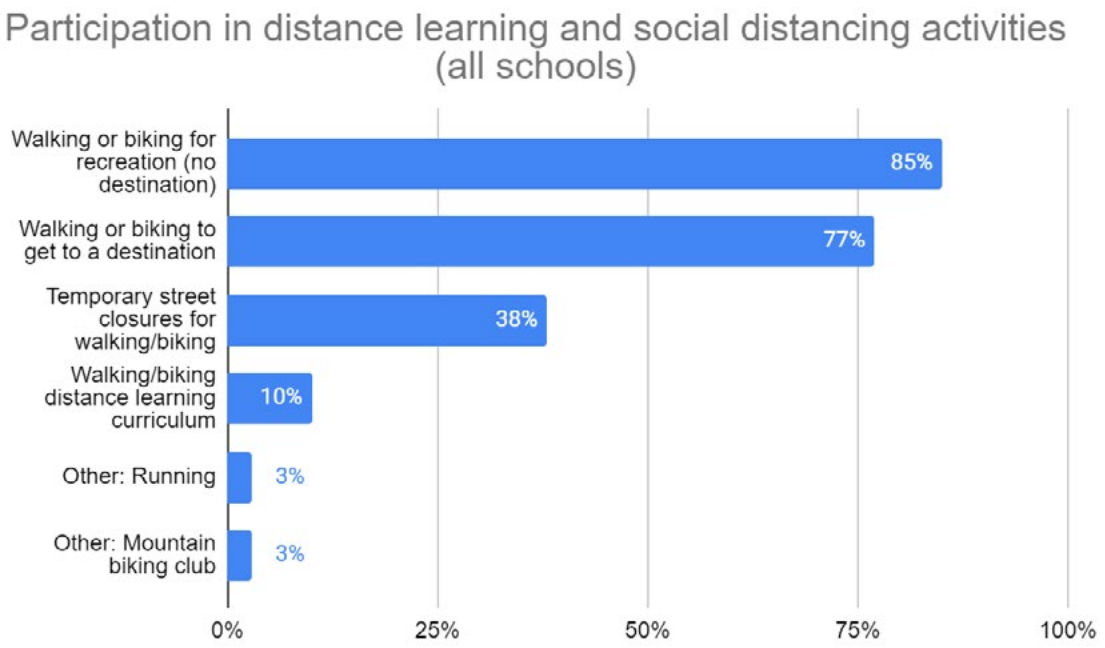
	Walks	Bikes	Travels by car	Travels by school bus/transit
More often than before	1	2	2	0
About the same	1	0	2	2
Less often than before	3	3	1	2
Total # of respondents	5	5	5	4

How has the COVID-19 pandemic affected your child's travel/physical activity habits both during and after the school day? (Humboldt)

	Walks	Bikes	Travels by car	Travels by school bus/transit
More often than before	0	0	0	0
About the same	0	0	1	0
Less often than before	1	1	0	1
Total # of respondents	1	1	1	1

How has the COVID-19 pandemic affected your child's travel/physical activity habits both during and after the school day? (OWL)

	Walks	Bikes	Travels by car	Travels by school bus/transit
More often than before	4	5	1	0
About the same	11	11	4	2
Less often than before	10	8	20	23
Total # of respondents	25	24	25	25



	Cherokee Heights	Riverview	Humboldt	OWL	All schools (#)	All schools (%)
Walking or biking for recreation (no destination)	10	1	1	21	33	85%
Walking or biking to get to a destination	7	3	0	20	30	77%
Temporary street closures for walking/biking	6	0	0	9	15	38%
Walking/biking distance learning curriculum	0	0	0	4	4	10%
Other: Running	0	0	0	1	1	3%
Other: Mountain biking club	0	0	0	1	1	3%
Total # of respondents	10	4	1	24	39	100%

Additional comments

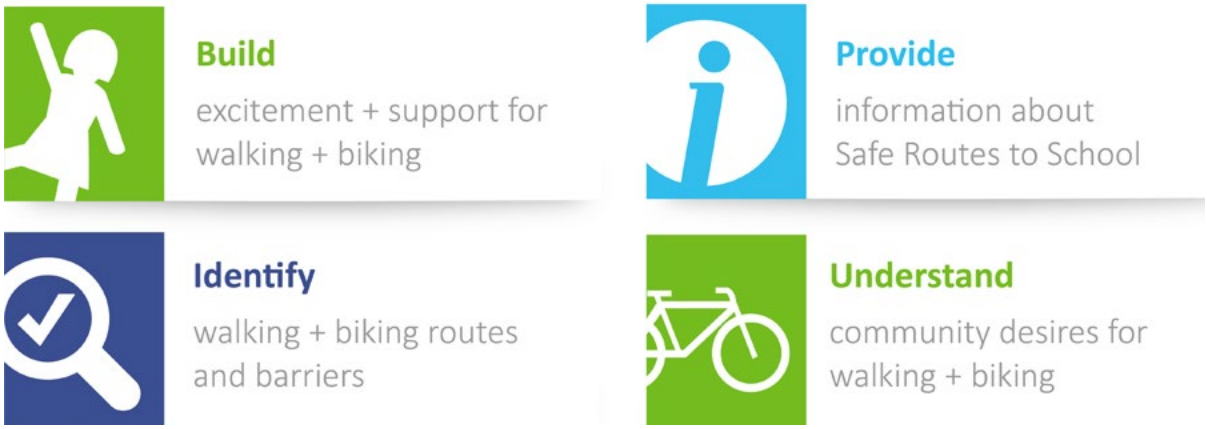
Respondents could leave comments at the end of the survey. The following comments were received; all comments were from caregivers of students at OWL.

- The switch to more reasonable start times for high school in SPPS definitely made biking to school more realistic!
- I do not think it is at all realistic to have students bike to school in the winter in Minnesota.
- My child bikes when the weather is good and there is sufficient light.
- With a 6th grader at a new school this year, and being in distance learning, it's hard to know the answers to some of these questions. There are still a lot of unknowns. But mostly, walking/biking just isn't practical for us given our distance from school.
- It would be impossible for my child to walk/bike to school. It is about 8 miles from our house, clear on the other side of town. As much as we love the idea it is just [not] achievable.

Appendix F. Engagement Summary

Safe Routes to School (SRTS) staff provided community engagement support to collect ideas on walking and biking from the Saint Paul Public Schools community. They assisted local Saint Paul Public Schools (SPPS) staff by hosting an interactive engagement website, creating an informational video, and supporting a student-led survey to gather feedback on the opportunities and barriers of walking and biking to school.

The purpose of the engagement activities were to identify walking and biking challenges, to understand where people would like to go, to provide information about walking and biking safety, and to build excitement for the SPPS Safe Routes to School Plan. These engagement strategies were chosen to make it easy for the SPPS communities to talk to staff and participate in the engagement activities while also adhering to social distancing guidelines during the Coronavirus pandemic.



SRTS community engagement goals

DATE	SCHOOLS	STRATEGY	PARTICIPANTS
Oct 2020 - Spring 2021	SPPS West Side Schools	Interactive website with survey and comment map	--
Nov 11, 2020	Riverview Elementary	Informational video for Riverview Elementary Families	--
Nov 6, 2020 - Jan 13, 2021	Open World Learning Community (OWL)	Student-led survey project	59

ENGAGEMENT STRATEGIES USED

Online Interactive Website: The interactive engagement website included a survey and comment map to identify challenging routes and intersections, and opportunities and barriers to walking/biking to school. The online interactive website was available in both English and Spanish, and was promoted through at engagement events and through the school's email updates to families.

Riverview Family Information Video: SRTS staff organized a short informational presentation to caregivers rotating through the virtual tables at the Riverview Family Fair. A Spanish interpreter was at the sessions to interpret for Spanish speaking families. No families attended the SRTS session at the family fair so SRTS staff provided a recorded informational presentations in English and Spanish for Riverview Elementary to distribute to families through their school newsletter.

Student Survey Project: SRTS staff worked with Open World Learning Community (OWL) seventh grade students to collect input from their classmates on how OWL can improve walking and biking for students. SRTS staff presented to OWL 7th graders to kick the project off and OWL teachers led students through in-class curriculum that taught students how to create, administer, and summarize surveys to their peers.

Fifty-nine OWL students in grades 6 through 12 took the survey with the largest contingent from 7th grade (15). Thirty eight of students who responded said they took the bus to get to school before the pandemic. Others said they drove or were driven in a car (13), walked (5) or biked (1).

The students who conducted the survey said the key findings are:

- Most students said walking or biking to school would be fun and they would feel safe walking or biking in their community.
- Many students live too far away to walk or bike and ride the school bus to get to school.
- Students would benefit from more information on walking and biking in their community.
- Many students said they don't know if there are bike lanes around the school, and many said they don't know where they could park their bike at school.

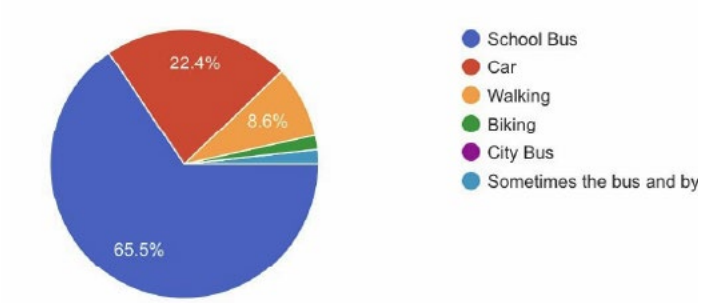


Figure created by 7th graders for the questions "How did you get to school most days?"

The following is a summary of engagement findings:

- **Opportunities:** Most students said it would be fun to walk or bike to school, and many expressed interest in more walking and biking education, programs, and resources.
- **Barriers:** Many students live too far away to walk or bike to school and those who do live close enough said road construction makes it challenging to walk or bike.
- **Programs:** A walk and bike to school route map showing locations with bike lanes and bike parking could help more students feel comfortable and confident in choosing to walk or bike to school.
- **Infrastructure:** Safe crosswalks and more bike lanes would encourage students to walk or bike to school more. Students do not feel safe walking or biking through road construction and improving temporary pedestrian and bicyclist facilities in construction zones could help more students choose to walk or bike.

OPPORTUNITIES

Most students said it would be fun to walk or bike to school. Although most get to and from school using the bus or car, many expressed interest in walking and biking. Most students who responded said they feel safe walking or biking in their neighborhood and that they have access to a working bike.

Many students reported that they were unsure if there are bike lanes on their route to school. Some said that providing more education to students and offering more resources like a maps that identify where there are bike racks and streets with bike lanes would increase the number of people walking or biking to school. More walking and biking education and resources would make students feel more confident and make it easier to choose a walking or biking route.

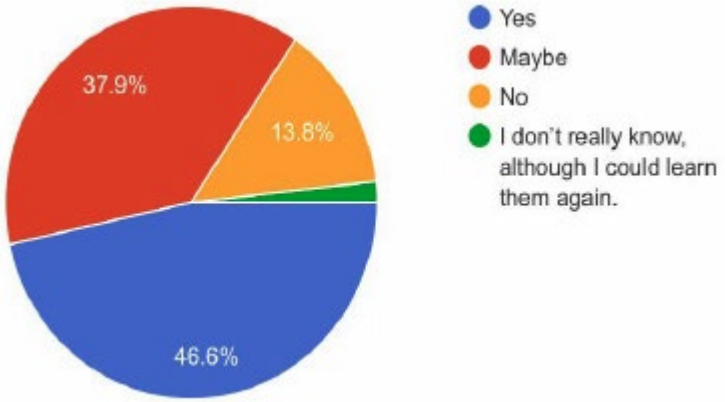


Figure created by 7th graders for the questions "Do you know the safety rules for walking and biking to school?"

BARRIERS

Students reported that the top barriers to walking and biking to school is living too far away or having to traverse construction on the way to school that would make walking and biking challenging. Some students also said that they feel unsafe walking or biking in their neighborhood or that they don't own a bike. Busy roads, a lack of bike lanes, unsafe crossings, and too many hills were also reasons students said they do not walk or bike.

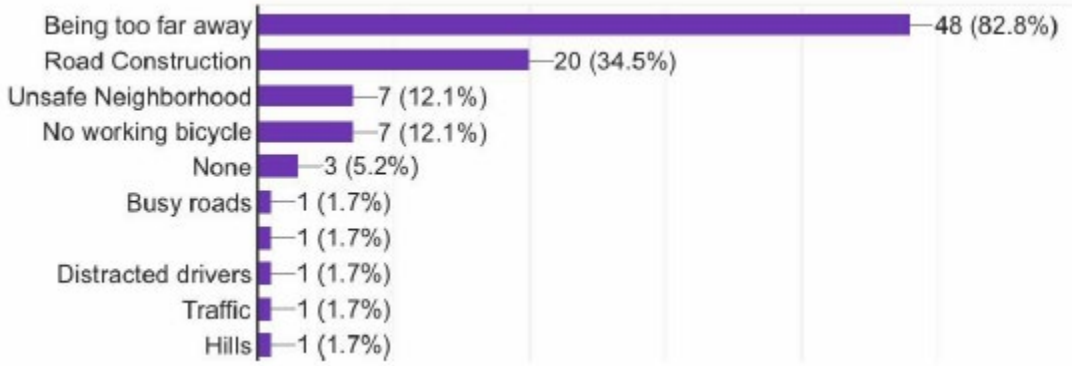


Figure created by 7th graders for the question "If you were to walk of bike to school, what obstacles would you face?"

PROGRAMS

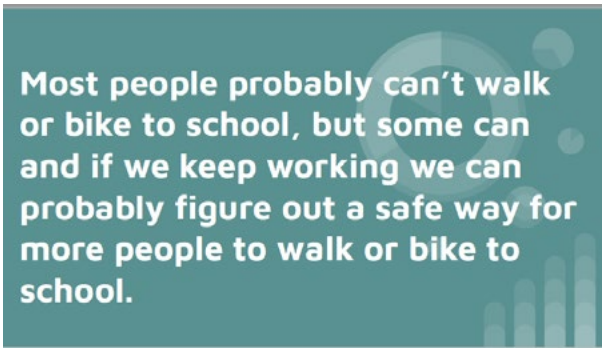
Walk and Bike to School Route Map: Students suggested showing bike racks, bike lanes, marked crosswalks, and landmarks/destinations on a map around the school to help students identify a safe route to take to school.

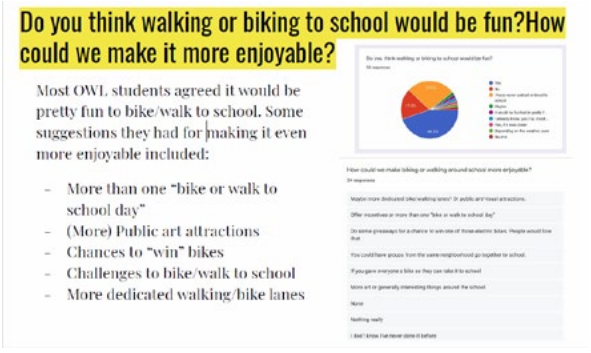
In-School Pedestrian/Bicycle Safety Education: Students suggested bicycle and pedestrian safety training in school curriculum to teach traffic laws and safety rules for walking and biking.

Ongoing Walk and Bike to School Days: Survey participants suggested organizing walk and bike to school days throughout the school year to encourage students to walk or bike.

Walking or Biking Groups: Students suggested creating walking or biking groups that could travel to or from school to improve safety and make walking and biking more fun.

Contests and Incentives: Students suggested incentivizing walking and biking to school with a contest or raffle to win prizes for students who walk or bike to school. Some suggested bike giveaways to encourage more biking to school.





Key findings slides from student survey presentations

INFRASTRUCTURE & CONSTRUCTION

Some students said more bike lanes and safer crosswalks would encourage them to walk or bike more; however, no specific locations were provided. Many students said that construction on Robert Street makes it unsafe to walk or bike, so better temporary facilities or marked detour routes for pedestrians and bicyclists in construction zones could help more people feel safer walking or biking.

Some students identified better lighting and more places to lock their bikes near school as other improvements that would help make walking and biking more comfortable and convenient for OWL students. A couple of students suggested more public art around school and in the neighborhoods would make walking or biking more exciting.

Appendix G. Infrastructure Toolbox

This infrastructure toolbox provides an overview of different infrastructure projects, separated by pedestrian facilities/enhancements, bike facilities, and street transformations. 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.

PEDESTRIAN FACILITIES/ENHANCEMENTS

TRAINED 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: 52-54
- MnDOT Minnesota SRTS: 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: 11-14
- 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 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 – Page: 11, and included throughout
- 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.

PEDESTRIAN HYBRID BEACON SYSTEMS (PHB OR HAWK)

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: 46-48
- 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, biking, and rolling 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: 4-7
- 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: 28-30
- 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: 8-10
- 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: 18-21
- 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

RECTANGULAR RAPID FLASHING BEACON (RRFB)

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: 49-51
- 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

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: 65-66
- 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

BIKE FACILITIES

BICYCLE BOULEVARDS

Description

A bicycle boulevard is a local street or series of connected local street segments that has been designated for use by bicycles and modified to provide priority treatment for bicyclists, while discouraging the use of these facilities by through traffic. Bicycle boulevards are intended to create conditions favored by bicyclists by taking advantage of bicycle-friendly characteristics that are typically found on local/residential streets—low traffic volumes and low vehicle operating speeds.

A bicycle boulevard can be tested through a demonstration project with paint, traffic tape, and bollards.

Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 76-78
- AASHTO Guide for the Development of Bicycle Facilities

Estimated Costs[I]

- The most likely revisions would involve moving STOP signs and adding guide signs, both of which could be done at very low cost. Other improvements involving crossing arterials would be $15,000 to $30,000 for adding median pedestrian refuge islands, $5,000 to $10,000 for curb extensions, and $10,000 to $120,000 for pedestrian, traffic control, such as rectangular rapid flash beacons or traffic signals

BUFFERED BIKE LANES

Description

Buffered bike lanes are conventional bicycle lanes paired with a designated, painted buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

Buffered bike lanes can be tested through a demonstration project with the use of paint and/or marking tape.

Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 70-72
- MnDOT Bikeway Facility Design Manual – Pages: 123-168
- AASHTO Guide for the Development of Bicycle Facilities – Chapter 5
- NACTO Urban Bikeway Design Guide
- MnDOT Demonstration Project Implementation Guide Page – 24

Estimated Costs[J]

- $2 per linear foot, bike lane with diagonal line striping (accounting for $0.69 per lane foot)

SEPARATED BIKE LANES

Description

Separated bike lanes (also known as protected bike lanes or cycletracks) are bike lanes that are physically separated from vehicle and pedestrian traffic.

Separated bike lanes are known to be safer for people walking, biking, and driving. They are more attractive and comfortable to a wider range of people than traditional painted bike lanes because they provide physical separation from motor vehicles. Separated bike lanes are typically implemented as one-way facilities on either side of the roadway. In some cases, a two-way separated bikeway may be used.

Separated bike lanes can be tested through a demonstration project with the use of paint, marking tape, stencils, and flexible posts or other solid objects that physically separate the bike lane from moving traffic.

Estimated Costs[G]

- Average $133,170 per mile

Resources

- FHWA-SA-18-077: Bikeway Selection Guide
- FHWA-HEP-15-025: Separated Bike Lane Planning and Design Guide
- FHWA-HEP-16-005: Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts
- MnDOT Bicycle Facility Design Manual
- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 83-85
- MnDOT Demonstration Project Implementation Guide Page – 24

SHARED USE PATH

Description

Shared-use paths provide off-road connections for people walking, biking, and rolling. 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 comfortable for users of all ages and abilities.

Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 79-82
- 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

STREET TRANSFORMATIONS

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.

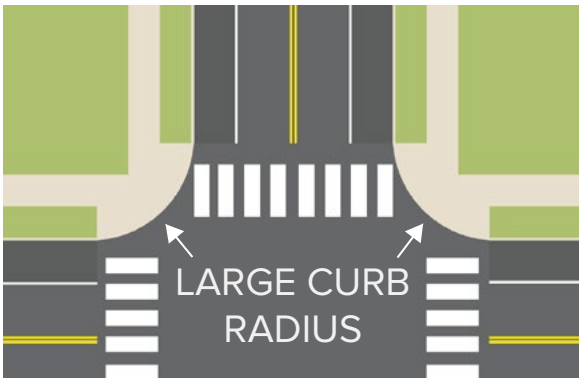
Estimated Costs[A,E]

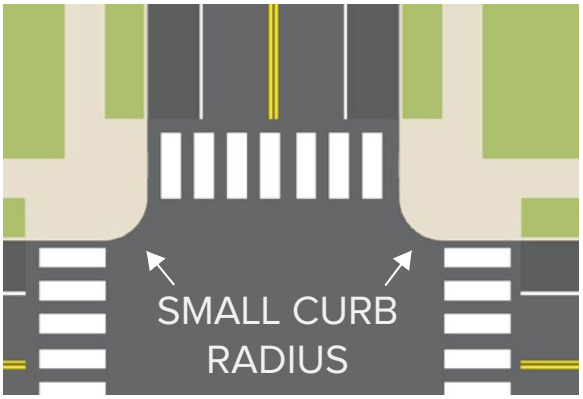
- $8.50 per linear foot; $85 for a ten foot travel lane

Resources

- Reducing Conflicts Between Motor Vehicles and Pedestrians: The Separate and Combined Effects of Pavement Markings and a Sign Prompt
- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 7
- 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

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

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: 62-64
- 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 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

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: 37-39
- 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.trafficsign.us/signcost.html
D: https://www.bls.gov/oes/current/oes339091.htm
E: http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf
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/pdffiles/LTAPFS11-Mid-Block.pdf
I: https://www.lrrb.org/pdf/201322.pdf
J: https://activelivingresearch.org/sites/activelivingresearch.org/files/Dill_Bicycle_Facility_Cost_June2013.pdf

Appendix H. 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!

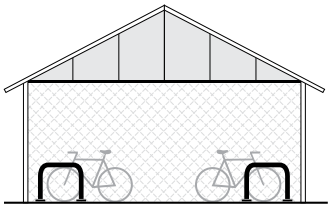
WHERE SHOULD PARKING BE LOCATED?

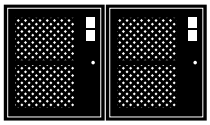
Well-located bike parking will be:

- 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 caregivers to conveniently pick up their children on their bikes

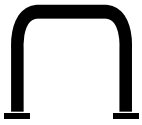
CAN MY SCHOOL PROVIDE ADDITIONAL AMENITIES?

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

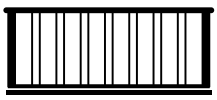
POST & RING

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!

WHEELWELL SECURE

WHICH RACKS ARE NOT RECOMMENDED?

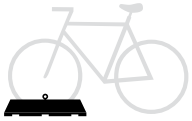
WAVE



COMB

SPIRAL

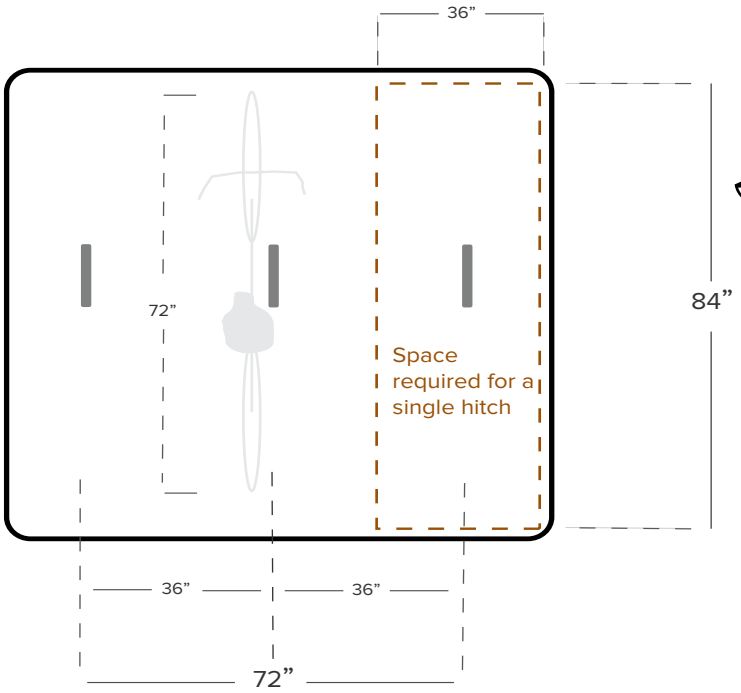
These racks do not provide support at two places on the bike, can damage the wheel, do not provide adequate security, and are not intuitive to use!



WHEELWELL

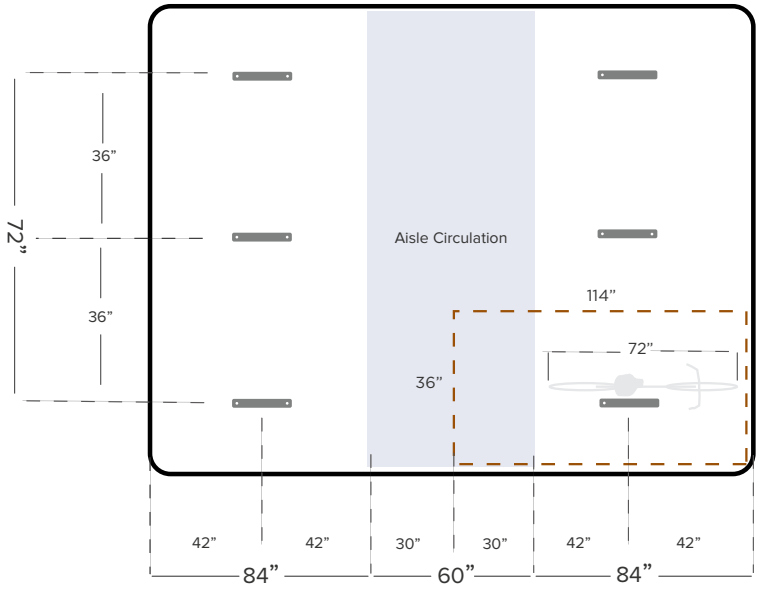
Graphics courtesy of Association of Pedestrian and Bicycle Professionals Essentials of Bike Parking report (2015).

SPACE REQUIREMENTS



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

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



Space required for a single hitch

RESOURCES FOR EQUIPMENT

Dero
Sportworks
Urban Racks

MORE INFORMATION

APBP Essentials of Bike Parking
Bike Shelter Development Guide -Portland Public Schools

Appendix I. Equity in SRTS Planning

When planning and implementing your SRTS programming, it is essential to design events and activities that are inclusive of students of all backgrounds and abilities. This appendix identifies potential obstacles to student participation and suggests creative outreach strategies, low-cost solutions, and flexible program additions that aim to:

- Reduce language and/or cultural barriers
- Engage students with disabilities
- Address personal safety concerns related to hate, harassment, and discrimination based on identity (race, ethnicity, language use, gender identity, sexual orientation, and other characteristics)
- Limit barriers related to school distance
- Mitigate the impact of any other unique challenges limiting a students ability to take part in a SRTS program

LANGUAGE AND/OR CULTURAL BARRIERS

To encourage families that do not speak English, are learning English, or are more comfortable conversing in another language to participate in Safe Routes to School programs, it is important to address any concerns and communicate how the program can benefit families. Hiring multilingual staff is the best way to communicate and form relationships with a diverse community.

Provide Materials in Multiple Languages

Some concepts change meaning unintentionally when translated literally, resulting in confusion. Also, words may have different meanings depending on different regional dialects.

- Ask families with native speakers to help communicate SRTS messages to others.
- Use images to supplement words so that handouts are easy to understand for all.

Use a Variety of Media

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

- Use a variety of mechanisms to communicate the benefits of walking and bicycling to caregivers.
- Have students perform to their caregivers, such as through a school play.
- Encourage youth-produced PSAs to educate caregivers on why walking, biking, and rolling are fun and healthy ways to get around.
- Provide emails, print materials, etc., in multiple languages.
- Use phone call/text trees, PTA meetings, or school events to reach caregivers.
- Work with staff members who speaks multiple languages to speak with caregivers at events.
- Employ staff from similar ethnic backgrounds to families at the school.
- Families increasingly use texting more than emails. Find out how families at the school communicate with each other and incorporate the methods they use in your messaging.

Meet People Where They Are

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

- Build partnerships with community groups, such as places of worship, food banks, public/affordable housing communities, and other groups, to reach those who might not be part of PTA 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.).

Host Caregiver Workshops

All caregivers want their children to be successful when it comes to school. Caregiver workshops are a good opportunity to work through any barriers and articulate how SRTS services and programs can help them be successful.

- Create simple ways for caregivers to get involved with SRTS and help put on events and activities with their children, who can often help navigate the situation.
- Hold a "Caregiver University," or workshops where concerns with SRTS programming can be voiced.
- Listen to and act on concerns and suggestions to build trust in the community.
- 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 caregivers who would like to volunteer may not be able to pass background checks.

Oftentimes, working adults have limited time to volunteer with their student's schools. The hours and benefits associated with many jobs can make it challenging 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 and Environmental Benefits

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

- Publicize to caregivers that walking, biking, and rolling to school provides great exercise and that it is fun, like an additional recess for students.
- Encourage caregivers to attend health fairs that highlight walking, biking, and rolling 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.

Address Clothing Choices

Some families might not have the resources to provide their student(s) with the proper clothing, outerwear, or footwear to make the walk or bike ride to school comfortable. There also may be a learning curve for knowing how to dress appropriately for different weather scenarios when a family moves from a different climate.

- Host a clothing drive or partner with local organizations that could provide necessary SRTS outfitting for those in need. This is especially important in winter—ensuring all students participating in SRTS have the necessary outerwear to stay warm in the colder months.
- Work with students who wear traditional cultural dress, religious head coverings, or select hairstyles who want to bike to school to make sure their bike is set up in a way that will not interfere with their clothing and that larger helmets or proper helmet fittings are provided.
- Include recommended layering strategies in SRTS communications and events to help students and families learn how to dress to be most comfortable, especially during the winter months.
- In the darker months, include education about the value of wearing bright clothing made with reflective materials or carrying reflective objects that make students walking or biking to/from school visible. Look for funding or groups willing to donate reflective pins for backpacks or coats, and/or bike reflectors. Safe Routes Utah provides some additional recommendations for dressing appropriately in winter months: https://saferoutes.utah.gov/winter-wear-for-walking-to-school/

STUDENTS WITH DISABILITIES

Some students may not be able to walk or bike to school, or for longer distances, because of mobility, auditory, physical-visual, cognitive-neurodiversity, or emotional behavior disabilities, but they still need to be included, welcomed, and accommodated in SRTS programs.

Look at Route and Program Improvements

- Invite students with disabilities to participate in school infrastructure audits to learn how to improve school access for all.
- Host focus groups or meetings with families that have a student or students with disabilities to gather feedback on how to make the SRTS routes or programs more inclusive of their specific disability.
- 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 caregivers of disabled students in the planning and implementation of these programs to better determine the needs of students with disabilities.

Normalize All Students Having Access to SRTS Programs

- 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.
- Talk about the differences in access to SRTS programs between students with and without disabilities to normalize the different ways that students can be considered pedestrians or bicyclists. There is no “one size fits all” definition.
- Work with local bike programs/shops to access adaptive bikes for students with disabilities that inhibit their mobility to make sure any student can bike to school if they would like to.

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, or an individual’s ability to go about their everyday life free from the threat or fear of psychological, emotional, or physical harm from others, can feel limited by concerns about hate and harassment, resulting in a significant barrier to walking and bicycling. These attacks on personal safety are often a result of differences in identity, including race, ethnicity, language use, gender identity, sexual orientation, and other identity characteristics.

Concerns about other criminal activity in the area, such as violence, dogs, drug use, and other deterrents can take precedence over SRTS activities in some communities. Higher-crime neighborhoods may also lack spaces like sidewalks or other facilities that offer highly visible, safe access for walking, biking, and rolling to school. This is a further deterrent for walking or biking to school.

Creating Safer Routes

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 caregivers to voice concerns to start the conversation about making improvements. Listen to their concerns, help caregivers prioritize, and connect them with the responsible agency to address the concerns.
- Encourage staff or caregiver 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 caregiver 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, cultural events, 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 caregivers confidence that their issues can be addressed.

Neighborhood Watch Programs

Establishing community-led safety efforts, safety ambassadors, and safety zones can involve the community in addressing personal safety concerns as supervision reduces the risk of bullying, crime, and other unsafe behavior. It is important to remember that while police officers have historically been involved in these roles, increased police presence does not invoke the same feeling of safety for all communities, and may actually deter walking, biking, and rolling.

- Set up safety ambassadors (recruited and paid caregivers, youth, or community members) to roam areas of concern. Make sure these ambassadors match the diversity of students at the school so students have leaders that are similar to themselves to look up to. Safe Passages or Corner Greeter programs station caregiver 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 ambassadors.
- Provide walkie-talkies to allow caregivers to radio for help if they are confronting a situation they are not able to resolve.
- Work to identify "safe places" like a home along the route where children can go to in 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 associated with 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 https://sparetheairyouth.org/. More information about organizing a Walking School Bus or Bike Train is available online at https://sparetheairyouth.org/program-resources/events/walking-school-buses-bike-trains.

Sponsor Neighborhood Beautification Projects

Work with community members to identify what they want their neighborhood to look like, and determine what types of identity-building beautification projects could benefit them. Sustaining clean, community-maintained neighborhoods 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 safety issues that might be present on the route to school. Caregivers may not want students to walk or bike if they are not confident in their child's ability to handle certain difficult situations.

Safety Information for Students

- Use time at school, such as during recess, PE, or no-cost after school programs, to teach students how to bike and walk safely.
- Utilize either existing curricula or bring in volunteer instructors from local advocacy groups and non-profit organizations.
- Teach students what to do in the event of an emergency and where to report suspicious activity or bullying. Look to community responders that do not get the police involved immediately to avoid escalating situations that could be handled with the right people/groups stepping in. https://dontcallthepolice.com/minneapolis/ provides a list of non-police emergency response groups in Minnesota that can be utilized for different types of emergencies.

- Providing 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 for teaching new skills in the street.

Safety Information for Caregivers

- 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. Create a series of maps in multiple languages and a map that uses primarily colors and symbols to provide legibility for students or family members who are unable to read. These maps could also incorporate tips for getting to school safely, share what to do in emergency situations, and mark safe places to go along the route should an emergency situation arise.
- Identify informal shortcuts and cut-throughs 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 city planners and local property owners to improve the route.
- Provide flyers for caregivers about how to find other families or groups to commute with or what to do in the event of an emergency to educate themselves and their children. Reference https://dontcallthepolice.com/minneapolis/ for a list of non-police emergency response groups that can be contacted for different types of emergencies.
- Offer pedestrian safety training walks. Make these fun and interactive and address caregivers' 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 or experience housing instability that leads to consistently changing routes, making walking or biking to school seem impossible. 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 caregivers 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 points and walk with students at a designated time to ensure they arrive to school safely and on time.
- Remote drop-off sites can be places such as underutilized parking lots at churches or grocery stores that give permission for their property to be used for this program.
- Identify potential remote drop-off 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 in groups to walk to a centrally located bus stop, which may translate into fewer needed bus stops since more students will be boarding at each stop.

Frequent Walker Programs

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

Appendix J. 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 walking routes should be evaluated annually and repainted every other year or more often as needed.

SEASONAL PLANNING AND MAINTENANCE

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

In the winter, snow removal and maintenance of school routes should be prioritized since clear pathways are 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 often 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.

While it is important to prioritize maintenance, additional planning should be employed to create new opportunities to encourage students to spend more time outside 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, proper lighting, and providing infrastructure that supports desired winter activities.

Lighting is important year-round, but becomes increasingly important in the darker months of winter for creating more inviting winterscapes for pedestrians and bicyclists. Lighting can induce 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

Safe Routes Partnership - Let It Snow: Ways to Help Walking in the Winter Months
https://www.saferoutespartnership.org/blog/let-it-snow-ways-help-walking-winter-months

Winter Design Guidelines: Transforming Edmonton into a Great Winter City
https://www.edmonton.ca/city_government/documents/PDF/WinterCityDesignGuidelines_draft.pdf