

Safe Routes to School

Quincy Elementary School – USD 501

Final Report



2014

School Background:

Quincy Elementary School is located north of the Kansas River in Topeka, encompassing a variety of area including residential, commercial, and farm land. During the 2014-2015 school year 267 students in Kindergarten through fifth grade attended Quincy Elementary, which is part of USD 501-Topeka Public Schools.

Working with USD 501, Quincy Elementary was selected as the ideal school for this project for a number of reasons including; neighborhood development, high traffic areas, make-up of the boundary areas, Body Mass Index (BMI) rates of students and overall academic performance of the school.

In the 2012-2013 school profile for Quincy Elementary it was identified that Quincy Elementary is a high need school in both reading and math.

Almost 94 percent of all students at Quincy Elementary were on lunch support. Students in kindergarten through second grade get 200 minutes of physical activity through recess and physical education class a week, third grade through fifth grade students get 235 minutes a week. We also know that 40 percent of the students at Quincy Elementary are either at risk (85th-94th percentile) or overweight (95th percentile or greater) on their BMI screenings.

Due to poor academic performance, Quincy Elementary is currently a target Priority School for USD 501 for academic attention. While most of this report pertains to environmental and system changes it is important to note some of the other challenges this particular school faces and the parallels to academic performance and regularly active students.

Research conducted by the Robert Wood Johnson Foundation shows that children who are more physically active tend to perform better in school. The same study found that children who perform better on physical fitness tests are more likely to earn higher reading and math scores.¹

Rationale:

Trends in Kansas mirror national trends towards increased levels of inactivity and obesity among children. Today, more than 23 million children and adolescents in the United States – nearly one in three – are either overweight or obese, putting them at higher risk for serious, even life-threatening health problems.² In Kansas 30.1 percent of children and adolescents are either overweight or obese. The obesity rate today remains more than four times higher among children ages 6 to 11 than it was a generation ago.³ As it is now research indicates that today's youth could potentially be the first generation to die before their parents. Only one-third of children are getting the U.S. Department of Health and Human Services recommended level of 60 minutes of moderate-to-vigorous physical activity per day.



Quincy Elementary School main entrance

Many factors related to physical activity and nutrition have facilitated the enormous increase in childhood obesity, including the vast decline in school-aged children and adolescents walking and bicycling to school. In 2009, 13 percent⁵ of children walked or bicycled to school and 48 percent⁶ of those lived within live within 1 mile of school. A majority of communities often lack safe and effective infrastructure like sidewalks, multi-use pathways, and even crosswalks for pedestrians and bicyclists. Many parents are also concerned about traffic dangers and personal safety. Data collected shows Quincy Elementary parents fall into this category, leading them to limit unsupervised activities outdoors as well as walking and bicycling to and from school.⁷

Initiatives to reverse the childhood obesity epidemic plaguing today's youth must be comprehensive and Safe Routes to School (SRTS) plans are critical to the success of these initiatives. Evidence shows that SRTS programs make the trip to and from school safer, increase the number of children who get to school by walking and bicycling, and promote the health of children in their communities.⁸

The National Prevention Strategy's annual report released in July 2014 highlights SRTS as an active living strategy: "...programs in local communities that encourage children to walk and bicycle to school. They also help create safer streets around schools, resulting in a safer commute for all students. As a result, these programs help make bicycling and walking to school a safer and more appealing transportation choice, thus encouraging a healthy and active lifestyle from an early age".⁹

The above recommendations clearly show that SRTS initiatives are well-accepted strategies for increasing physical activity among children and adolescents. Policy changes, current initiatives, and collaboration between local agencies and USD 501 make SRTS a realistic and highly effective tool to combat childhood obesity in Topeka.

Safe Routes to School (SRTS) is an evidence-based strategy that can help reverse the epidemic of childhood obesity. Some relevant findings are cited below:

- SRTS programs can increase walking and bicycling by 20% to 200%.
- Children traveling through pedestrian-friendly environments are more likely to walk or bicycle to and from school.
- Children who walk to school are significantly more physically active throughout the day as compared to children who travel to school by car.
- A 5% increase in neighborhood walkability – which looks at the completeness of the sidewalk network, safety of street crossings, directness of routes and other measures – was associated with 32.1% more minutes devoted to physically active travel.
- Children who walk or bicycle to school have better cardiovascular fitness compared with children who do not actively commute to school.

(Safe Routes to School Statewide Network Project: 2011)

Data Collection:

School Site Audit, Safety Observations, and Traffic Counts:

Audits of the school property were conducted to help determine walking and bicycling conditions on and directly adjacent to school property. The audit conducted at Quincy Elementary School helped to



Cars parked along NE Paramore St. dropping off students directly south of the school and an overgrown brick sidewalk

discover potential areas for design improvements and increased safety. School site audits were conducted twice, once during the school's drop-off time before school and once during pick-up immediately following the final bell. Safety observations were conducted for the purpose of determining how safely students can cross the street to and from school. Examples of the forms used for these observations can be found in Appendix-1.

Observers stood at the Northeast corner of the Quincy St. and Paramore St. intersection to monitor the drop-off before school and stood at the Northwest corner of the Quincy St. and Monroe St. intersection to monitor the pick-up after school.

Observers conducted traffic counts at these times to determine traffic congestion issues. Observers recorded 60 cars showed up to drop off students in a 40 minute span from 8:00 to 8:40am, those 60 cars dropped off 87 students, a ratio of 1.45 students per car.

There were some issues noticed during the drop-off observation times. One issue observed during the drop-off period was a school bus had to wait at the stop sign at the Quincy-Paramore intersection for 5 minutes because cars were parked and unloading in the bus unloading zone. Which in turn led to a five cars being backed up behind the bus. Further inspection found that the bus loading/unloading zone was not properly marked along Quincy St., directly west of the school. Another issue was that there are no crossing guards in the morning. One student stood at the Quincy-Paramore intersection waiting to cross for 3 minutes until one of the observers told her it was safe to cross because cars were not waiting at the stop sign for her, instead they would come to a stop and then continue through the intersection immediately after. Furthermore the speed of traffic along Paramore was noticeably faster than it should be; this creates a



Stretch of NW Paramore St. from NW Central St. to N Kansas Ave. with no sidewalks, one of the main walking routes to and from school

number of hazards for both drivers and pedestrians. There are currently no speed controls or traffic calming measures in place besides school zone signs to slow the flow of traffic.

During the pick-up time, from 3:30 to 3:55pm, observers recorded 63 cars showed up to pick up 87 students, a ratio of 1.38 students per car. Observers did notice that the pick-up time was much more organized than the drop-off before school. All students who rode the bus exited the building on the west side, all students who were walking/bicycling exited on the south side, and all students who were being picked up by a vehicle exited on the east side. Parents who are picking up their children with a vehicle are directed to circle around the school and line up along Monroe St. where teachers and administrators wait with the students and help them get into the correct car. Signs are posted at the Quincy-Monroe intersection indicating that it is a one-way street during pick-up times. Observers also noticed that some parents would also park their cars a block away and walk to the school to meet their children rather than wait in the line along Monroe St. An administrator also served as a crossing guard at the Quincy-Paramore intersection during this time helping students across the street. The only observed issue during pick-up



Abandoned house (1503 NE Quincy) directly across from the Quincy Elementary School main entrance



Overgrown weeds covering sidewalk on NW Harrison St., N of Paramore St.

was again the speed of traffic was noticeably faster than it should have been.

The school site assessment also pinpointed some potential barriers that would potentially keep parents from allowing their children to walk or bicycle to and from school. Traffic does not seem to move freely without congestion and back up, and cars routinely would pull into driveways and back up into traffic to turn around after dropping off their children. The sidewalks do not appear to be well lit; branches cover the sidewalks and do not allow the lights to penetrate through. It was also difficult to see posted school zone signs because they were also being blocked by branches or brush. Observers also noticed an abandoned house directly across from the school and along a main route students must walk on their way to school. The school does however have three racks for bicycle parking that would accommodate up to 24 bicycles. The

intersections adjacent to the school had accessible ramps for wheel chair access and half of the ramps have either tactile warning strips or textured concrete. Furthermore, “No Parking” signs are posted in

various locations surrounding the school; however, several cars were still parked in the no parking zones.

Neighborhood Walkability Audits:

Walkability audits are a process where community volunteers, school staff, and parents walk the adjacent neighborhoods to assess the barriers to safe walking and bicycling. Audits typically focus on routes currently used by students to travel to and from school. However, there was no consensus on what those routes were and it was decided to do an audit of the entire Quincy Elementary school attendance boundary.

The Quincy Elementary School attendance boundary was split up into 10 separate sectors for the audits. The walkability audits were completed over the span of 2 days with the help of 28 community volunteers and Shawnee County Health Agency staff. Community volunteers were split into 10 teams, one team for every sector, and given a map with the sector outlined, an audit form, and a list of common barriers to look for while conducting the audit. Having volunteers on foot gave the team a firsthand look at the barriers keeping children walking to and from school.

These walking audits provided an abundance of useful data. The most common barriers found during the audits are listed below:

- Missing or overgrown sidewalks
- Vacant and abandoned buildings
- Stray dogs on the loose
- Raised or damaged sidewalks

A compilation of maps with all the issues found in every sector can be found in Appendix-3.

Student Surveys:

For this project a modified version of the Student Tally form developed by the National Center for SRTS was used. This is the standardized tally form being used by SRTS programs across the United States. A sample of the form can be found in Appendix-2. Teachers were asked to use this form to record specific information about how children traveled to and from school on Tuesday, Wednesday, and/or Thursday of a normal school week. Teachers were asked to tally at least two days of that week in the classroom. Students were directed to raise their hands in response to how they arrived and planned to leave school on that given day.

Teachers administered these surveys on two different occasions during this project. Surveys were conducted once in April of the 2013-2014 school year and once in September of the 2014-2015. The goal was to get data from two different sets of students. For the April surveys 72 percent of the student



Lack of access ramps at SE corner of NW Jackson St. and NW Grant St. with overgrown sidewalks

population was surveyed, 79 percent of students were surveyed during the September surveys. The following tables detail results from both surveys:

April 22nd & 24th

| | Walk | Bicycle | School Bus | Car |
|----------|------|---------|------------|-----|
| Tues AM | 34 | 3 | 69 | 85 |
| Tues PM | 38 | 3 | 68 | 82 |
| Thurs AM | 29 | 2 | 70 | 86 |
| Thurs PM | 33 | 2 | 70 | 82 |

September 16th & 18th

| | Walk | Bicycle | School Bus | Car |
|----------|------|---------|------------|-----|
| Tues AM | 31 | 5 | 74 | 99 |
| Tues PM | 32 | 4 | 74 | 99 |
| Thurs AM | 26 | 1 | 72 | 108 |
| Thurs PM | 24 | 1 | 72 | 110 |

Numbers are listed as total number of students

Parent Surveys:

For this project the Parent Survey form developed by the National Center for SRTS was used. This is the standardized parent survey being used by SRTS programs across the United States. This short two-page survey asks for information about travel mode to school, what factors affect whether parents allow their children to walk or bicycle to school, the presence of key safety-related conditions along routes to school, and related background information. Surveys were sent home with students as well as conducted in person at Quincy Elementary Schools Parent Night and Book Fair in order to reach a majority of parents; the surveys were made available in both English and Spanish.

Of the 267 surveys sent home with students, only 36 were returned. During the Parent Night only 8 parents who had not already submitted a survey agreed to fill out surveys. Some surveys were only partially completed. Overall the return rate for surveys was 16 percent, this number does not however account for parents who had multiple children enrolled at Quincy Elementary School.



End of sidewalk before railroad crossing at NW Tyler St. and NW Morse St. forcing pedestrians to cross in the street

Some of the most surprising and prudent data/comments collected are listed below:

- 27 percent of students already walk to school
- 62 percent of students live within 1 mile of school, yet distance from the school was the top indicator for parents not allowing their children to walk/bicycle to school (59 percent)
- 52.4 percent of parents would not feel comfortable letting their child walk/bicycle to school without an adult at any age
- 76.2 percent of parents recognized that walking/bicycling to school was healthy for their children
- “Need new sidewalks”
- “No child should walk to school if over one block, it’s just not safe anymore”

A complete listing of all data collected and samples of the survey forms can be found in Appendix-4 and 2 respectively.

Lessons Learned:

Communication is Key:

Connect with groups in the community who are working on the same or similar issues. Communicate with these groups early on and often to prevent unnecessary work that duplicates what other have already completed. Furthermore, plan to reach the broadest audience possible by using a variety of methods, such as but not limited to school and Neighborhood Improvement Association newsletters, electronic communication, school and community presentations, regular updates to governing body, and community wide mailings.

School Agendas and Requirements:

Schools have specific requirements they need to meet, and their currently established priorities may or may not work extremely well with the project’s agenda. For a SRTS program to work most effectively with a school, it is a necessity to find out the school’s current agenda and work the program to fit within the agenda.

Timelines:

Everything takes longer than you think! Getting a diverse group of individuals together with different schedules and agendas takes times, as does getting them to plan, promote, and assist with programs or presentations. Engage partners as soon as possible to allow enough time for completion of an assigned task and make sure to allot for the different operating speeds of partnering organizations.



Meeting of community volunteers before conducting neighborhood walking audits

Involvement of Critical Players:

Certain entities need to be involved in these types of projects from the very beginning (school districts, public safety, local health departments, city planning/engineering, etc.). These partners must be invited to participate in the project from the initial grant-writing stage in order to help shape the vision and to understand the commitment of the project.

Recommendations:

It is important to understand that any successful SRTS initiative acknowledges that safer walking and biking routes are best accomplished through a combination of infrastructure and noninfrastructure projects and programs. These cornerstones of a SRTS initiative are collectively referred to as the “5 E’s” and include Education, Encouragement, Engineering, Enforcement, and Evaluation. The following recommendations will tie into these cornerstones. There are many potential funding opportunities available to break ground on SRTS initiatives. The SRTS-Phase II application through the Kansas Department of Transportation (KDOT) is a great next step to work on correcting the barriers found during the data collection process. Again this report should be used as a platform for making decisions, however, specific actions and funding need to be discussed with USD 501 and associated stakeholders.

Immediate Actionable Items:

There were several items that can be addressed immediately without further funding. Code compliance and enforcement issues were some of the top indicators found by community volunteers conducting the



An abandoned house (807 NW Gordon St.) where stray dogs were coming in and out of the structure

neighborhood walkability audits as barriers to walking and bicycling. Most notably was the vast number of vacant and abandoned structures, both residential and commercial, found throughout Quincy Elementary school’s attendance boundary. Another code compliance issue was the buildup of weeds and plant materials on or over sidewalks. A large portion of brick sidewalks were partially or completely overgrown and some sidewalks were completely blocked by weeds that had been left to grow in excess. A partnership

with the Property Maintenance Code Unit of the City of Topeka would be beneficial to address these code compliance issues. Loose dogs was another indicator that volunteers noticed in abundance, there were 14 instances of loose dogs marked during the walkability audits. A partnership with the Animal Control Office of the City of Topeka would be beneficial to help address the issue of dogs on the loose.

Another barrier noted by observers was the large amount of congestion during the drop-off period before school. One of the main reasons for this congestion stemmed from not having a separate unloading zone for both buses and personal vehicles. As mentioned earlier in this report there was a moment when a bus had to wait 5 minutes at the stop sign before the space in front of the school was clear enough for it to proceed. There are multiple different ways to fix this issue such as designating the space directly in front and west of the school as a bus loading and unloading zone only with signage, curb striping, and other pavement markings, to properly enforce the no parking/loading signs around the school, or to even implement a temporary street closure of NE Quincy St. such as the one used during the pick-up period on NE Monroe St. However, another recommendation would be to follow-up and partner with the Shawnee County Parks and Recreation at Garfield Park and Family Aquatic Center to utilize the parking lot adjacent to Quincy Elementary School as a drop-off location. This location would not only serve as a safe place away from other vehicles but also would allow kids another way to get some physical activity by having them walk a half block to the school. This location has sidewalks already in place to and from the school and is easily accessible by both bus and by foot.

There is currently an initiative called “We the People” in place where students from Quincy Elementary School walk to the North Topeka (NOTO) arts district for art classes. This initiative is using art students at Quincy Elementary School to design banners that would designate a safe route to and from the NOTO arts district. The plan calls for the purchase of 15 banner poles that would mark the designated route from Quincy Elementary School (corner of NE Quincy St. and NE Paramore St.) west down NE Paramore St. to N Kansas Ave, then turn South and continue down N Kansas Ave. to the NOTO arts district (N Kansas Ave. and NE Gordon St.). This is an opportunity for promoting and garnering continued support for a school wide SRTS initiative as well as bringing awareness of pedestrians to the North Topeka community.

Long Range Actionable Items:

A majority of the long range actionable items will need to be identified after an initial analysis of this report; however, recommendations in regards to some of the most glaring barriers and improvements are included in this section.

As mentioned earlier an application for SRTS-Phase II through KDOT would be beneficial to acquire funding for these recommendations and

other projects deemed necessary by USD 501 administration. Phase II funding is used for implementation of all or portions of a SRTS plan. Some of the work that can be completed with Phase II



Soldier Creek trail connector on NW Central St., one block north of NW Paramore St., does not connect to any sidewalks

funding include but are not limited to: sidewalk improvements, traffic calming and speed reduction improvements, traffic diversion improvements in the vicinity of schools, and pedestrian and bicycle crossing improvements. While Phase II funding is primarily used for engineering components, activities involving the other four “5 E’s” (Education, Encouragement, Enforcement, and Evaluation) must also be included in the SRTS plan. This funding could be used in partnership with both the Bikeways Advisory Council and the Historic North Topeka East NIA who are both currently in the implementation phase of their master plans and are focusing on areas within the 2 mile radius from Quincy Elementary that is



Crumbling and raised sidewalk along NE Monroe St., less than a block away from Quincy Elementary

required for engineering-related projects during Phase-II implementation.

The most highly traveled street to and from Quincy Elementary school is NW Paramore St., and from NW Central St. east to N Kansas Ave. there are no sidewalks on either side of the street for students to safely walk on. The first recommendation would be to construct sidewalks from NW Central St. along the north side of NW Paramore St. to N Kansas Ave. that would connect to current sidewalks already in place. Furthermore, it would then make sense to continue this sidewalk one block north along NW Central St. from NW Paramore St. in order to connect it to the Soldier Creek trail which currently has a connector to Central St. but the closest sidewalk is a block away and leads away from Quincy

Elementary School. The Soldier Creek trail crossing on NW Topeka Blvd. is currently one of the safest ways for students to cross NW Topeka Blvd. from the western part of the Quincy Elementary attendance boundary.

High traffic congestion and the speed of drivers on the streets directly adjacent to Quincy Elementary School is a high level of concern according to the data collected. However, several different types of traffic calming measures can be used to decrease speed, congestion, and increase safety. Potential traffic calming measures for this area include but are not limited to the following:

- Signage and curb striping of bus loading and unloading zones on NE Quincy St. directly west of the main entrance
- Temporary street closure of NE Quincy St. north of NE Paramore St. except for buses
- Raised crosswalks at the intersection of NE Quincy St. and NE Paramore St.
- Raised crosswalks at the intersection of NE Monroe St. and NE Paramore St.
- Restripe crosswalks adjacent to school property
- Implementing crossing-guard duty during morning drop-off times

Further analysis will need to be done to determine which types of traffic calming measures will be most appropriate for the area adjacent to Quincy Elementary School.

Program and Educational Opportunities:

As mentioned before, one of the main cornerstones of any SRTS project is education. Education programs are primarily aimed at helping children build their pedestrian, bicycling, traffic, and social skills but should also be made to include initiatives that educate parents and other motorists. The goal of these programs would be to foster lifelong habits, change the social environment at school, and to create opportunities for engagement. Often these programs can begin right away with approval from school administration. Recommended programs and educational opportunities are found in this section.

Classroom activities are a great way to raise awareness, encourage kids to walk and bicycle to school and to teach safe walking and bicycling behaviors. Many organizations such as American Automobile Association (AAA), Safe Kids, WalkSafe, and local police and fire departments have curricula designed for use in elementary school classrooms. In addition to safety lessons, classroom involvement can include activities such as mapping routes from a student's house to school as part of a geography lesson or writing letters to local transportation and elected officials about safety concerns as part of a language arts lesson.

Walking School Buses are adult supervised walks from a neighborhood to and from school. It can be as informal as multiple families taking turns walking their children to and from school or as a route



Students participating in a Walking School Bus at Inghram Elementary School, San Bernardino, CA (<http://www.saferoutesinfo.org/>)

sanctioned by the school with time sensitive meeting points and a regularly rotated number of trained volunteers, including parents, teachers, and administrators. As with the feedback received through the parent surveys for this initiative, parents often cite safety issues as one of the primary reasons they are reluctant to allow their children to walk or bicycle to school. Providing adult supervision may help reduce those worries for families who live within walking or bicycling distance of Quincy Elementary.

Safety Rodeos are typically events geared towards bicycling specifically, but can be modified to include pedestrian safety skills as well. These events can either be put together as after-school programs or presented

during school assemblies. Rodeos can be designed as large events with skills activities, exhibits and games or much smaller with just a handful of volunteers. The goal of these events is to teach kids the basic safety procedures while walking or bicycling such as proper hand signals while bicycling or where to cross the street if walking.

Encouragement campaigns are also great ways to get students involved and active. Examples include International Walk or Bike to School Days which are events that involve communities from all over the globe in October and May respectively and happen every year. Frequent Walker and Biker programs provide students with an incentive to walk or bicycle to school. When a student does walk or bicycle to

school, they can get a hole punched into a frequent user card or a sticker on a board in the classroom. Then once they have filled in their card or hit a certain milestone on the board they can trade in those points for a prize.

Conclusion:

It is no surprise that some parents are reluctant to let their children walk or bicycle to school. However, infrastructure and noninfrastructure projects can begin to reverse the current negative trends and make it safe and fun again for children to walk and bicycle to school. Community support for a SRTS initiative in North Topeka is excellent at this time, with many of the community partners excited to see work begin and ready to offer what support they can! The Shawnee County Health Agency staff was honored to have worked on a project that would help more children be fit and healthy, and create a more livable Topeka community.

Footnotes:

- 1 Active Education: Physical Education, Physical Activity and Academic Performance. Active Living Research, 2007. http://www.saferoutespartnership.org/sites/default/files/pdf/Lib_of_Res/5ed-Active_Ed.pdf (Accessed November 2014). (No authors given).
- 2 National Health and Nutrition Examination Survey, NHANES Response Rates and CPS Totals. Centers for Disease Control and Prevention, 2010. http://www.cdc.gov/nchs/nhanes/response_rates_CPS.htm (accessed November 2014). (No authors given.)
- 3 Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal KM. "Prevalence of high body mass index in US children and adolescents, 2007–2008." *Journal of the American Medical Association*, 303(3):242–9. <http://www.ncbi.nlm.nih.gov/pubmed/20071470> (accessed November 2014).
- 4 Trends in the Prevalence of Physical Activity, National YRBS 1991-2007. Atlanta: U.S. Centers for Disease Control and Prevention. (No authors given). www.brhpc.org/files/yrbs07_us_physical_activity_trend.pdf. (accessed November 2014).
- 5 Kids Walk-to-School: Then and Now—Barrier and Solutions. Atlanta: Centers for Disease Control and Prevention. (No authors given). www.cdc.gov/nccdphp/dnpa/kidswalk/then_and_now.htm (accessed November 2014).
- 6 Martin S, Lee S and Lowry R. "National Prevalence and Correlates of Walking and Bicycling to School." *American Journal of Preventive Medicine*, 33(2): 98–105, August 2007.
- 7 Martin S, Carlson S. "Barriers to children walking to and from school-United States, 2004," *MMWR Morb Mortal Wkly Rep*, 54(38):949-952, 2005.
- 8 Orenstein, Marla R., Gutierrez, Nicole, Rice, Thomas M., Cooper, Jill F. and Ragland, David R. "Safe Routes to School Safety and Mobility Analysis." UC Berkeley Traffic Safety Center. (April 1, 2007). Paper UCB-TSCRR-2007-1.
- 9 National Prevention Strategy, 2014, Washington, DC: National Prevention Council, U.S. Department of Health and Human Services, Office of the Surgeon General, 2014 (No Authors Given). <http://www.surgeongeneral.gov/initiatives/prevention/2014-npc-status-report.pdf>

Appendix-1
School Site Audit and Traffic Count Forms

SAFE ROUTES TO SCHOOL: TRAFFIC COUNT FORM

Road Name or Location _____

Date _____ Weather _____

Start Time _____ End Time _____

Name(s) of Counters & Recorders _____

| Count the Number of Cars | How Many Children in Each Car? | Count the Bicyclists (with helmets) | Count the Bicyclists (without helmets) | Count the Number of Children Walking |
|--------------------------|--------------------------------|-------------------------------------|--|--------------------------------------|
| | | | | |

SCHOOL SITE AUDIT

The following site audit should be conducted to help determine walking and bicycling conditions on/adjacent to school property. This audit will help the school to discover potential areas for design improvements and increased safety. Members of the School Traffic Safety Team and the Principal should fill out the following audit during prime school hours in order to see how students get to and from school. Please take a map of the school grounds with you on the audit for orientation and note taking. If a map is unavailable please construct one as you go to help you identify areas for improvements later on in the safe routes to school process.

Date: _____ Day: _____ Time: _____ Weather Conditions: _____

| 1. Student Drop-Off Areas | YES | NO | NA |
|--|--------------------------|--------------------------|--------------------------|
| a. Are they designed so that students exiting or entering cars are protected from other vehicles? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Do they have a continuous raised curb separating vehicles from pedestrians? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Are there accessible curb ramps for wheel chair access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Do the ramps have tactile warning strips or textured concrete? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Are there posted vehicular signs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Are there posted pedestrian signs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Is the area lighted? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Does traffic seem to move freely without congestion and backup? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Please describe additional problems within the student drop-off area in the space provided below: | | | |



Maryland Safe Routes to School Guidebook _____

| 2. Bus Loading Zones | YES | NO | NA |
|---|--------------------------|--------------------------|--------------------------|
| a. Are bus driveways physically separated from pedestrian and bicycling routes by raised curbs or bollards? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Are bus driveways physically separated from parent pick-up/drop-off areas? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. If the buses are "double-stacked" for drop-off/loading areas, are measures taken for safety of students needing to cross in front or behind the bus? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is traffic in the bus loading zone one-way? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Does the bus zone meet the minimum width of 24' for drop-off/pull-out lanes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Is there a continuous curb and sidewalk adjacent to the drop-off/loading area leading into the school site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Is the bus loading/unloading zone lighted? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Please describe additional problem areas regarding the bus loading zone in the space provided below. | | | |

| 3. Sidewalks and Bicycle Routes | YES | NO | NA |
|---|--------------------------|--------------------------|--------------------------|
| a. Are current pedestrian and bicycle routes separated from motor vehicles by the use of sidewalks or separated pathways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Are the bicycle routes designated by signage? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Are marked bicycle lanes present? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Are sidewalks and bicycle paths regularly maintained (free of debris, cracks and holes)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Are there accessible ramps for wheel chair access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Are the sidewalks continuous and without gaps? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Do the ramps have tactile warning strips or textured concrete? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Are the sidewalks lighted? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Are the sidewalks used regularly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Please describe additional problem areas regarding the school's sidewalk system and existing bicycle routes in the space provided below. | | | |



| 4. Adjacent Intersections (intersections near school property) | YES | NO | NA |
|--|--------------------------|--------------------------|--------------------------|
| a. Are there high volumes of automobile traffic? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Are there high volumes of pedestrian traffic? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Are there painted crosswalks for all crossing directions? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Are there curb ramps located at all adjacent intersections? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is there appropriate vehicle signage? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Is there traffic control, such as a stoplight or stop sign? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Are there pedestrian walk signals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Please describe additional problem areas regarding these intersections in the space provided below. | | | |

| 5. Sight Distance (clear views between motorists and pedestrians) | YES | NO | NA |
|---|--------------------------|--------------------------|--------------------------|
| a. Are desirable sight distances (visibility is free of obstructions) provided at all intersections within the walking zone? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Do cars park or wait blocking the vision of other motorists, bicyclists and pedestrians? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Have the placement of fences, walls, dumpsters and the location of parking areas for service vehicles been carefully considered in view of sight distance requirements on the school site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Are there any barriers present that block the viewing of pedestrians and bicyclists (i.e. dumpsters, utility boxes, landscaping, parking areas, ground mounted signage, building walls)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Please describe additional problem areas that have sight distance obstructions in the space provided below. | | | |



| 6. Traffic Signs, Speed Control, Signals and Pavement Markings | YES | NO | NA |
|---|--------------------------|--------------------------|--------------------------|
| a. Are there any School Advance signs, School Crossing signs, School Speed Limit signs, flashing beacons, and No Parking or No Standing signs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is there an effective school targeted program of traffic enforcement? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is there a designated school zone? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Are there any school pavement markings located on roadways adjacent to or in the vicinity of the school grounds? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Are there currently traffic/speed control measures used, such as different pavement surfaces, non-white paint, speed bumps, and speed tables? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Please describe additional information regarding adjacent traffic signs, speed control, signals and pavement markings in the space provided below. | | | |



Appendix-2
Student and Parent Surveys



Safe Routes to School Student Survey

Teacher Name: Grade:

Week: Students Enrolled:

- Please conduct this survey on at least two of the following three days Tuesday, Wednesday, and/or Thursday.
- Please read through all possible answer choices first so the students know their options.
- Please ask your students first "How did you arrive at school today?", and secondly "How do you plan to leave for home after school?"

| KEY | Weather | Students | Walk | Bicycle | School Bus | Family Vehicle | Carpool | Other |
|--------------|---|-------------------------------------|------|---------|------------|------------------------------|--|-------|
| | S=Sunny R=Rainy O=Overcast SN=Snow | Number in class when count was made | - | - | - | Only children in your family | Riding with children from other families | - |
| DAY 1: AM | | | | | | | | |
| DAY 1: PM | | | | | | | | |
| DAY 2: AM | | | | | | | | |
| DAY 2: PM | | | | | | | | |
| DAY 3: AM | | | | | | | | |
| DAY 3: PM | | | | | | | | |

Please write any comments below.
Thank you for your help!

+

+

8. Has your child asked you for permission to walk or bike to/from school in the last year? Yes No

9. At what grade would you allow your child to walk or bike to/from school without an adult?

(Select a grade between K,K,1,2,3...) grade (or) I would not feel comfortable at any grade

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)

11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)

- | | | | | |
|--|---|------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> Distance | <input type="checkbox"/> My child already walks or bikes to/from school | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure |
| <input type="checkbox"/> Convenience of driving | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Time | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Child's before or after-school activities | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Speed of traffic along route | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Amount of traffic along route | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Adults to walk or bike with | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Sidewalk or pathways | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Safety of intersections and crossings | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Crossing guards | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Violence or crime | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |
| <input type="checkbox"/> Weather or climate | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Sure | |

+

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

+

12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

- Strongly Encourages Encourages Neither Discourages Strongly Discourages

13. How much fun is walking or biking to/from school for your child?

- Very Fun Fun Neutral Boring Very Boring

14. How healthy is walking or biking to/from school for your child?

- Very Healthy Healthy Neutral Unhealthy Very Unhealthy

+

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

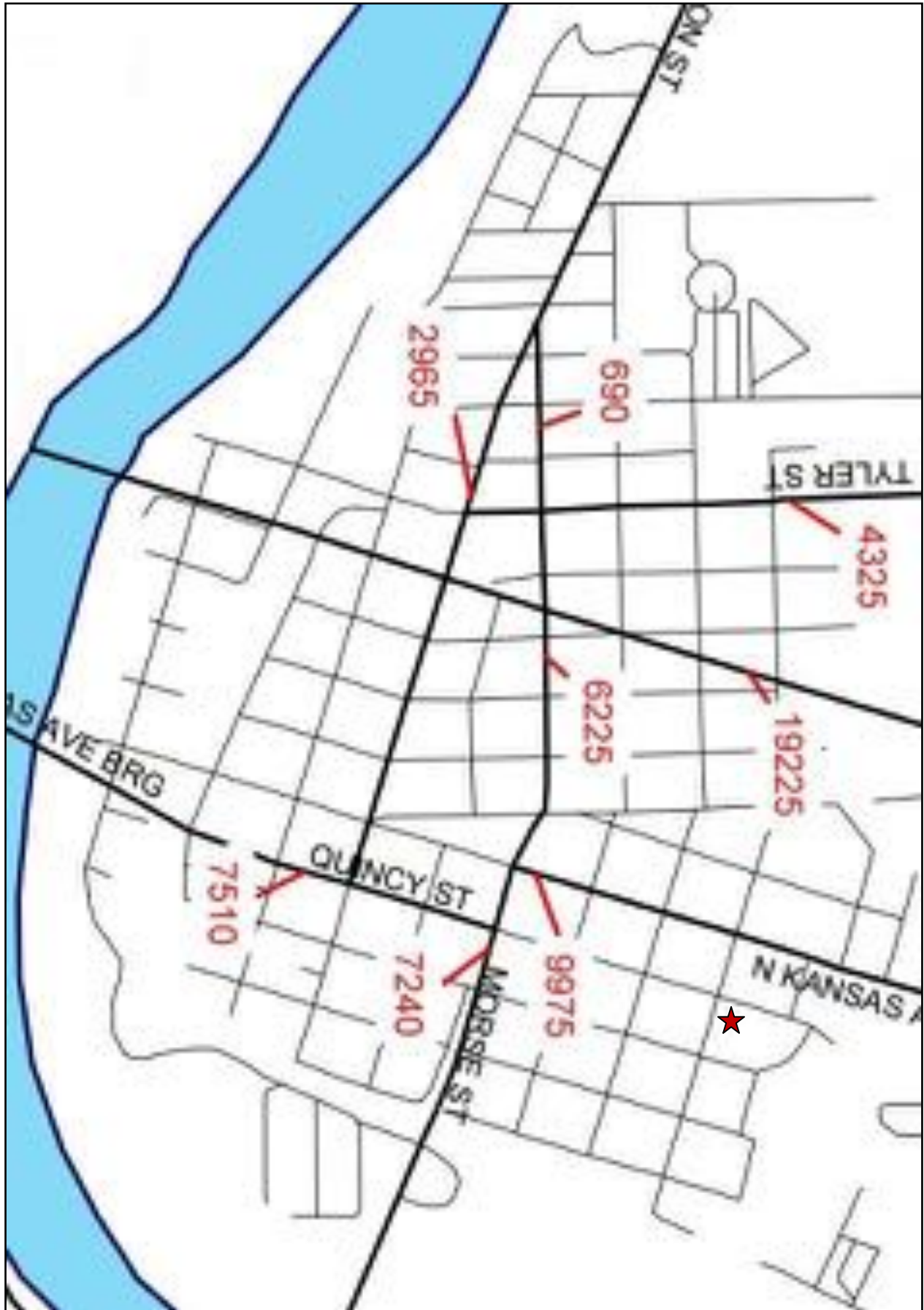
+

15. What is the highest grade or year of school you completed?

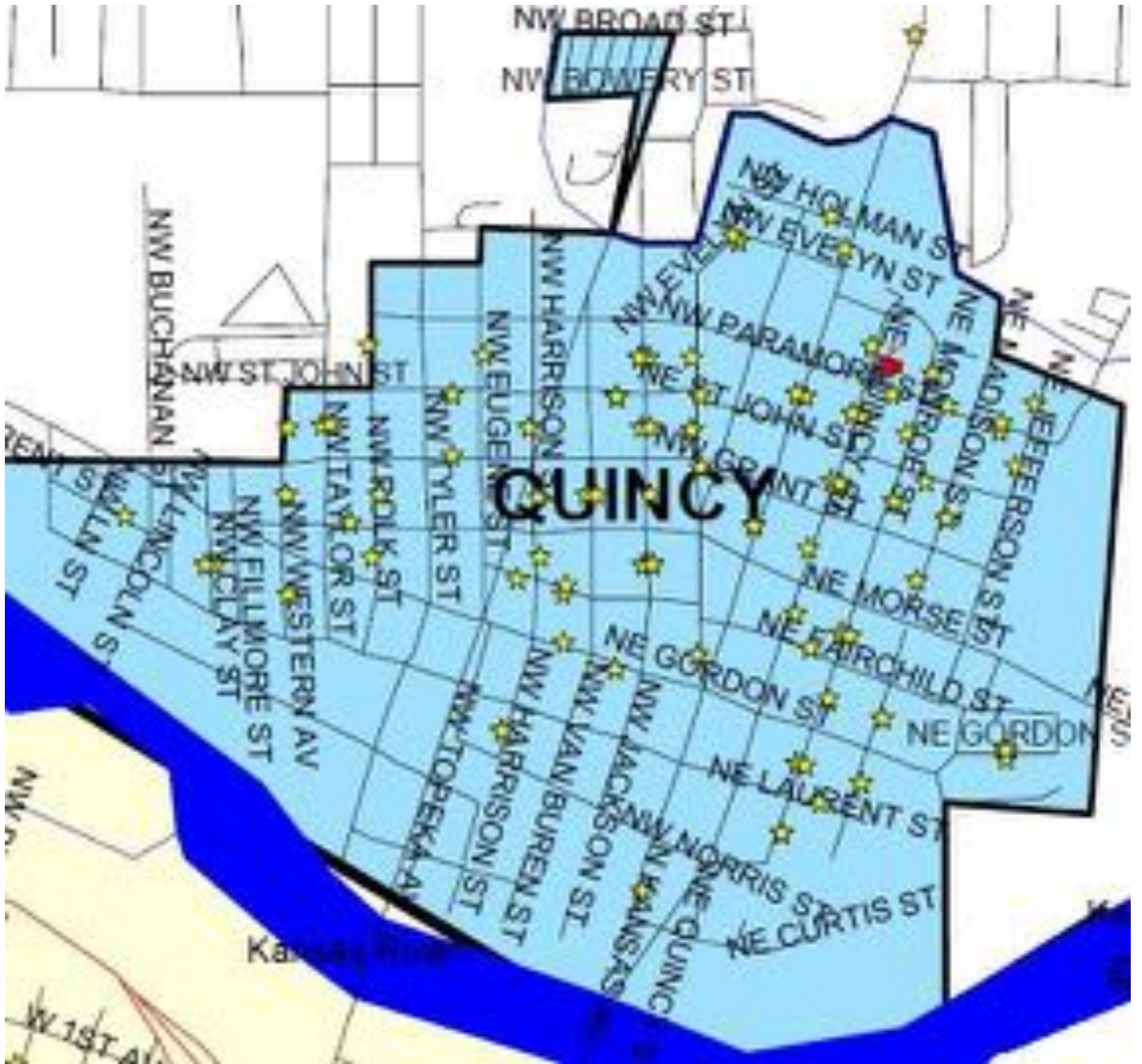
- | | |
|---|--|
| <input type="checkbox"/> Grades 1 through 8 (Elementary) | <input type="checkbox"/> College 1 to 3 years (Some college or technical school) |
| <input type="checkbox"/> Grades 9 through 11 (Some High school) | <input type="checkbox"/> College 4 years or more (College graduate) |
| <input type="checkbox"/> Grade 12 or GED (High school graduate) | <input type="checkbox"/> Prefer not to answer |

16. Please provide any additional comments below.

Appendix-3 Maps



Topeka Traffic Count Map courtesy of KDOT – March 2014



Quincy Elementary School Attendance Map (where students live) – courtesy of USD 501



Barriers map – All sectors with property lines

Legend**Path Indicators****Structure Type**

-  Single Family
-  Child Care Facility
-  Non-Connecting Home
-  Caregiver
-  Urban Sidewalk

Traffic Controls**Type**

-  Lighted Crosswalk
-  Stop Sign
-  Traffic Signal
-  Yield Sign

Records**Type**

-  Arrival
-  Collision
-  Hazard
-  Lack of Signage
-  Potholes
-  Sidewalk Crossing
-  Speeding at Intersection
-  Suspicious Activity
-  Vandal Building

Sidewalks**Type**

-  Asphalt
-  Single Path
-  Strip
-  Concrete
-  Covered Sidewalk
-  Crosswalk
-  Lack of Sidewalk
-  Not clearly visible Crosswalk



- Legend**
- Path Indicators**
- StructureType**
- Bicycle Rack
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unseen Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Curbcut
 - Hazard
 - Lack of Signage
 - Potholes
 - RFI Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Non-fully visible Crosswalk



Safe Route District Map: 2

- Legend**
- Path Indicators**
- Walkway Type**
 - Bicycle Paths
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unseen Sidewalk
- Stalls, Controls**
- Type**
 - ▲ Lighted Cross Walk
 - ▲ One Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
 - Animal
 - Curbcut
 - Driveway
 - Lack of Signage
 - Potholes
 - RFI Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vandal Building
- Sidewalks**
- Type**
 - ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Non-continuously visible Crosswalk



- Legend**
- Path Indicators**
- Structure Type**
- Bicycle Paths
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overpass
 - Unpaved Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Collision
 - Hazard
 - Lack of Signage
 - Pedestrian
 - RT Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Non-continuously visible Crosswalk



Safe Route District Map: 4

- Legend**
- Path Indicators**
- Structure Type**
- Bicycle Racks
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unseen Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Collision
 - Hazard
 - Lack of Signage
 - Potholes
 - RTI Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Not clearly visible Crosswalk



- Legend**
- Path Indicators**
- Marker Type**
- Bicycle Route
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unpaved Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ One Way
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Collision
 - Hazard
 - Lack of Signage
 - Pedestrian
 - RT Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Non-fully visible Crosswalk



Safe Route District Map: 6

- Legend**
- Path Indicators**
- Bicycle Route
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unseen Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- ◆ Animal
 - ◆ Collision
 - ◆ Hazard
 - ◆ Lack of Signage
 - ◆ Pedestrian
 - ◆ RFI Crossing
 - ◆ Speeding at Intersection
 - ◆ Suspicious Activity
 - ◆ Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Not clearly visible Crosswalk



Safe Route District Map: 7

- Legend**
- Path Indicators**
- StructureType**
- Bicycle Rack
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overwalk
 - Unseen Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Collision
 - Hazard
 - Lack of Signage
 - Pedestrian
 - RFI Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vandal Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Not clearly visible Crosswalk



Safe Route District Map: 8

- Legend**
- Path Indicators**
- Structure Type**
- Bicycle Paths
 - Curb (No Ramp)
 - Non-Connecting Ramp
 - Overgrowth
 - Unseen Sidewalk
- Traffic Controls**
- Type**
- ▲ Lighted Cross Walk
 - ▲ Stop Sign
 - ▲ Traffic Signal
 - ▲ Yield Sign
- Hazards**
- Type**
- Animal
 - Collision
 - Hazard
 - Lack of Signage
 - Pedestrian
 - RR Crossing
 - Speeding at Intersection
 - Suspicious Activity
 - Vacant Building
- Sidewalks**
- Type**
- ~ Asphalt
 - ~ Bicycle Path
 - ~ Brick
 - ~ Concrete
 - ~ Covered Brick
 - ~ Crosswalk
 - ~ Lack of Sidewalk
 - ~ Non-fully visible Crosswalk



Safe Route District Map: 9

Legend

Path Indicators

Structure Type

- Bicycle Rack
- Curb (No Ramp)
- Non-Connecting Ramp
- Overgrowth
- Opened Sidewalk

Traffic Controls

Type

- ▲ Lighted Cross Walk
- ▲ Stop Sign
- ▲ Traffic Signal
- ▲ Yield Sign

Hazards

Type

- ◆ Animal
- ◆ Collision
- ◆ Hazard
- ◆ Lack of Signage
- ◆ Potholes
- ◆ RR Crossing
- ◆ Speeding at Intersection
- ◆ Suspicious Activity
- ◆ Vandal Building

Sidewalks

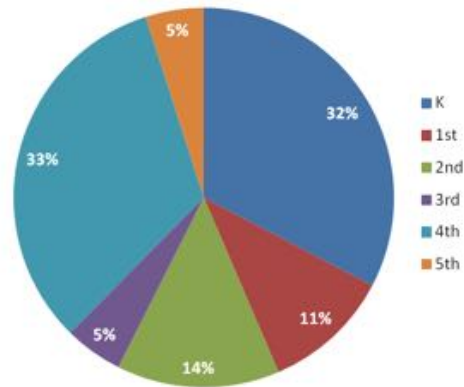
Type

- ~ Asphalt
- ~ Bicycle Path
- ~ Brick
- ~ Concrete
- ~ Covered Brick
- ~ Crosswalk
- ~ Lack of Sidewalk
- ~ Not clearly visible Crosswalk

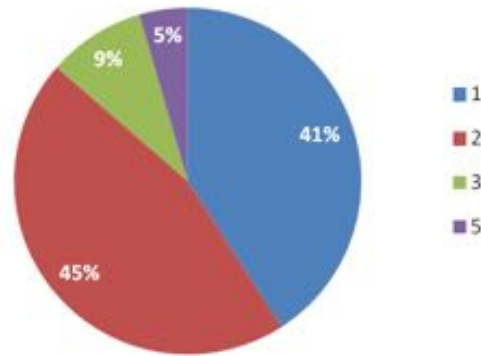


Appendix-4
Parent Survey Data Graphs

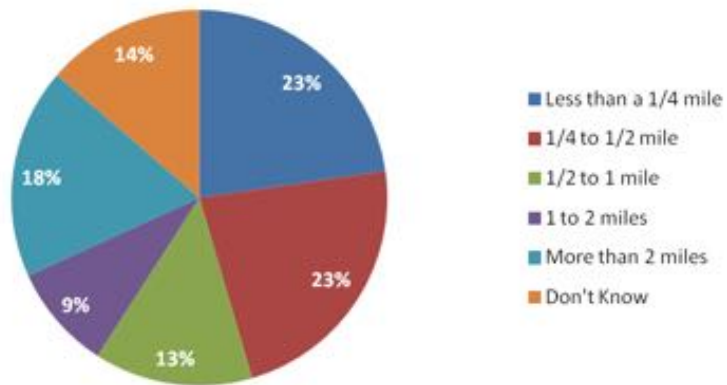
What is the grade of the child who brought home this survey?



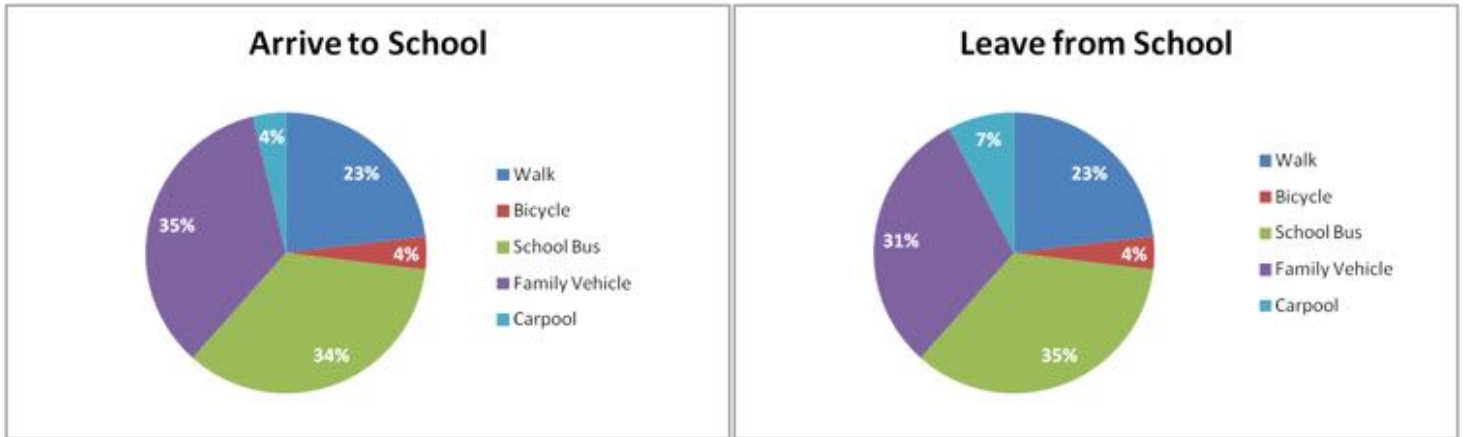
How many children do you have Kindergarten through 8th?



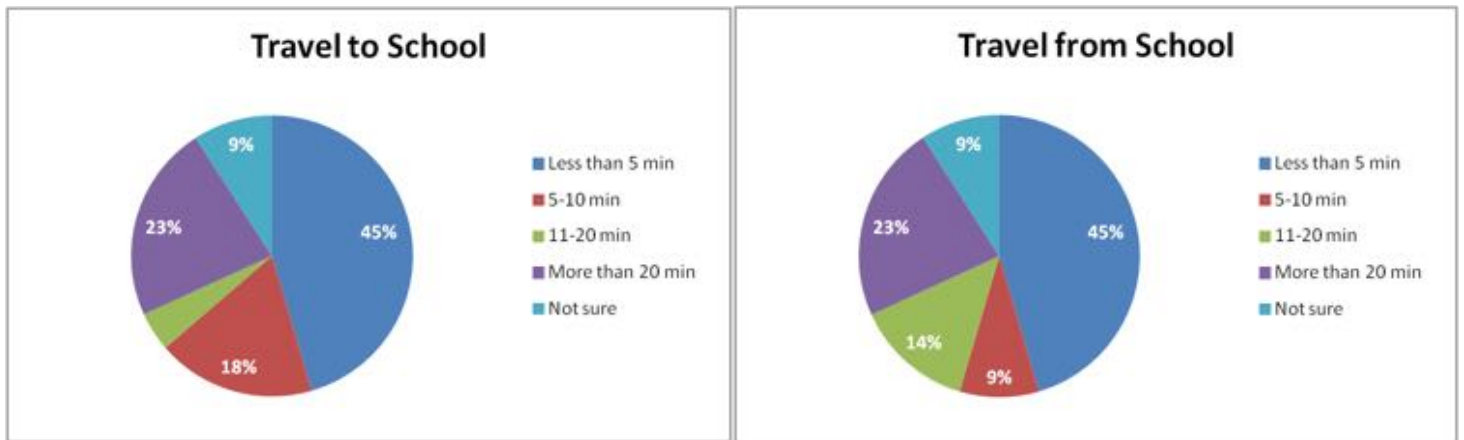
How far does your child live from school?



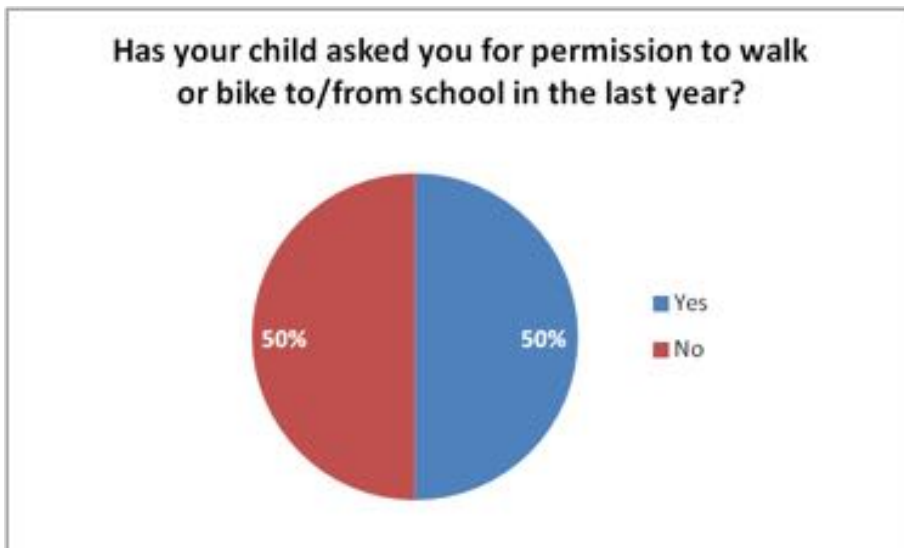
On most days, how does your child arrive and leave for school?



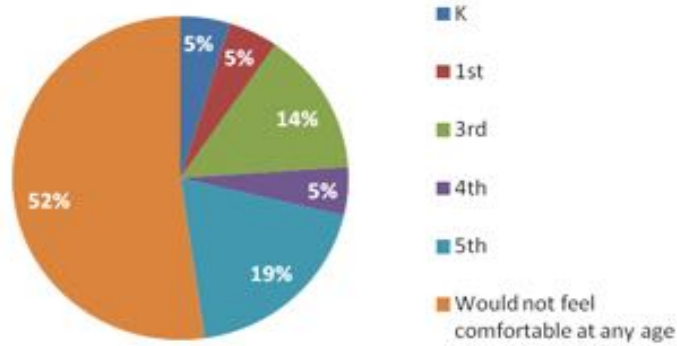
How long does it normally take your child to get to/from school?



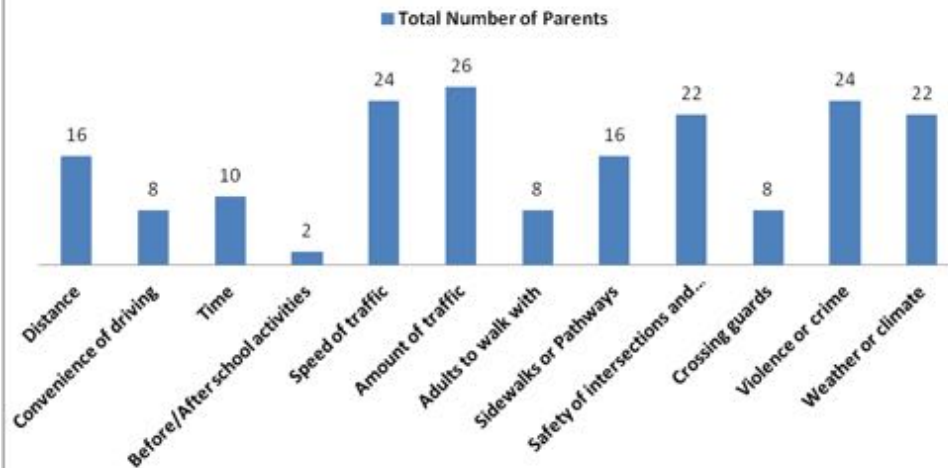
Has your child asked you for permission to walk or bike to/from school in the last year?



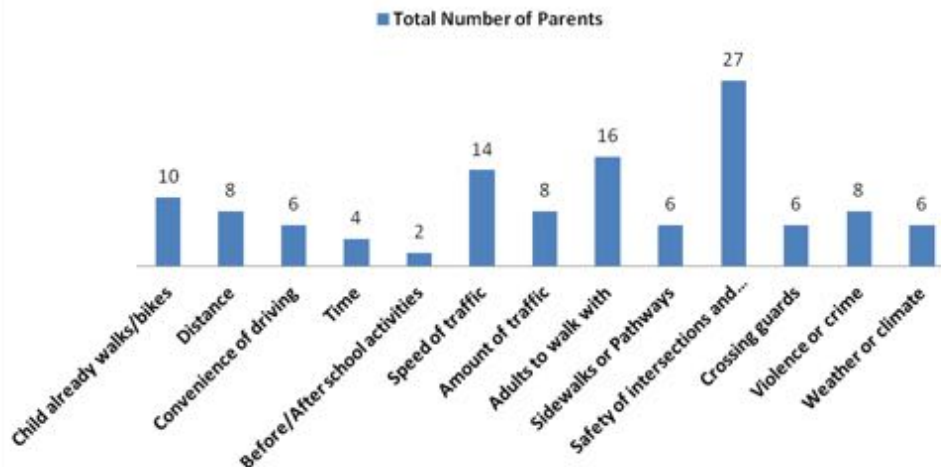
At what grade would you allow your child to walk or bike to/from school?



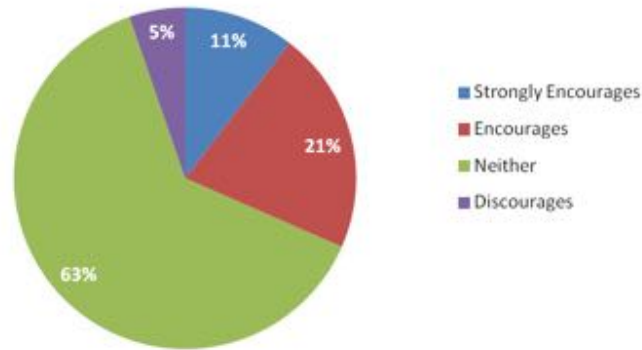
What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school?



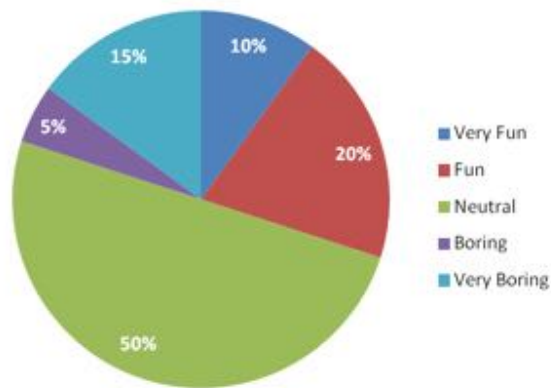
Would you let your child walk or bike to/from school if this problem were changed or improved?



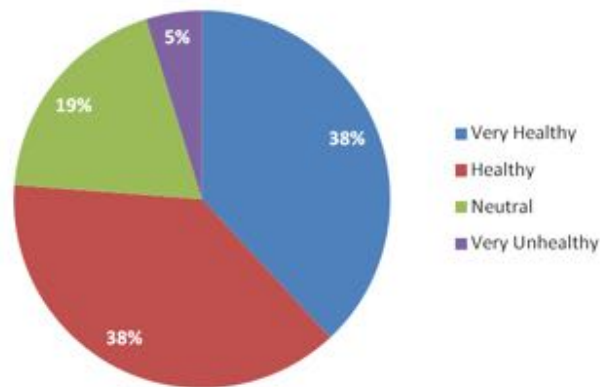
In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?



How much fun is walking or biking to/from school for your child?



How healthy is walking or biking to/from school for your child?



Acknowledgements:

This report was prepared by Craig Barnes, Health Promotion Coordinator at the Shawnee County Health Agency. For any questions regarding this report please contact him at 785-251-2030 or craig.barnes@snco.us.

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