<p>The University of Wisconsin-Madison Urban and Regional Planning Workshop Course conducted a survey of parents whose children attended one or more school in Monona. The survey identified the commute behavior of students in Monona to and back from school such as time, distance, and mode of transportation. Most importantly, the survey aims to find out why or why not the parents letting their children to walk or bike to and back from school. The result also reveals roads or intersection where parents expressed concerns for the safety of their children. Ultimately, the survey aims to shed some light on potential improvement to ensure safe route to school for the children in the City of Monona. Over the period of Nov 14, 2016 to Dec 1, 2016, the survey successfully collected a total of <span class="text-muted">287</span>responses from the parents of the students from the following school: </p>

November 14 2016 to December 1 2016, we received a total of 287 responses from the parents from the following school. 265 out of 287 parents (92.33% response rate) responded about the schools their children are attending.

Distance:

Time to

Time from

Transport to: 264 (91.19 % response rate)

Transport from:

The response rate to this question is 91.64%. Out of the 263 responder, 16% lives less than ¼ mile from school, 14% lives between 1/4 to ½ mile from school, 19% lives between 1 to 2 miles from school, and 25% lives over 2 miles from school. In other words, a

Figure 2 shows traveling distance to school. The response rate to this question is 91.64%. Out of the 263 responder. Assuming walking speed for children is about 3 miles per hour(mph), 59% of the students who live less than 1 mile can walk to school in 20 minutes. In addition, assuming biking speed is 8 mph, students who live less than 2 miles (82%) can easily bike to school in 15 minutes.

Figure 3 shows traveling time to school with a response rate of 91.29% (262 responses). The 59% of children of responders spent less than 10 minutes traveling to school, 31% spent 10 to 20 minutes traveling to school and 10% spent over 20 minutes traveling to school.

Figure 4 shows traveling time from school with a response rate of 92.33% (265 responses). The 54% of children of responders spent less than 10 minutes traveling back from school, 29% spent 10 to 20 minutes traveling back from school and 17% spent over 20 minutes traveling to school.

Figure 5 shows the mode of transportation to school. The response rate to the question is 92.33% (265 responses). Figure 6 shows that only 22.6% bike, walk, or use others as the mode of transportation to school. 77.4% go to school by school bus, family vehicle, carpool, or city bus.

Figure 7 shows the mode of transportation coming back from school. The response rate to the question is 92.33% (265 responses). Figure 8 shows that bike, walk, others category increased by 5.7% when children going back from school. 71.7% back from school by school bus, family vehicle, carpool, or city bus.

Figure 9 shows mode of transportation to school categorized by school. The response rate of Figure 9 is 91.98% (264 responses). For WES, only 21.05% of children of responders go to school by walk, bike, or others. For MGHS, lesser student (13.40%) go to school by walk, bike, or others. 45.45% of the children who go to IHoMCS bike, walk, or others to school. NHCS and MG21 have more children bike and walk to school than go to school by school bus, family vehicle, carpool, or city bus.

Figure 10 shows mode of transportation back from school categorized by school. The response rate of Figure 10 is 91.98% (264 responses). For WES, 2.25% more children coming back from school by walk, bike, or others compared to going to school. For MGHS, 11.34% more children going back from school by walk, bike, or others compared to going to school. 4.55% more children who go to IHoMCS bike, walk, or others back from school compared to going school. NHCS and MG21 have more children bike and walk to school than go to school by school bus, family vehicle, carpool, or city bus. NMCS and MG21 have the same mode of transportation going to and coming back from school.

Both the mode of transportation to and from school show general trend where the shorter the distance from home to school, more children choose to bike, walk, or other to and from school(see Figure 11 and Figure 12).

For children who bike or walk to school, 80.36% of the parents feel the route to school is somewhat safe or very safe, and 19.65% of the parents feel the route to school is not at all safe or somewhat unsafe (see Figure 15).

Distance from home to school, speed of traffic along the route, amount of traffic along route, weather, sidewalk or pathways are the top five topics that received the highest votes from parents as somewhat important and very important issues (see Figure 15).

Distance from home to school, speed of traffic along the route, amount of traffic along route, weather, sidewalk or pathways are the top five topics that received the highest votes from parents as somewhat important and very important issues (see Figure 16).

Amount of traffic along route, speed of traffic along route, sidewalk or pathways, weather, child’s age are the top five topics that received the highest votes from parents as somewhat important and very important issues (see Figure 17).

Speed and amount of traffic along route, sidewalks or pathways, crossing guards, and adults to walk or bike with are the top five topics which the parents would allow their children to walk or bike to and from school if those areas are improved (see Figure 17).

Methods

This survey is adopted from the <a href=<http://www.saferoutesinfo.org/sites/default/files/resources/Parent_Survey_English.pdf>>Parent Survey about Walking and Biking to School</a> by the <a href=” http://www.saferoutesinfo.org”>National Center for Safe Routes to School </a> for both English and Spanish version. This survey is distributed to five participating schools in the City of Monona using  <a href=” https://survey.wisc.edu/”>UW-Madison Qualtrics Survey Hosting Service</a>. The survey result is analyzed and displayed through this website.

Resource:

Parent survey for biking and walking to school (modified): <http://tinyurl.com/zx4qomt>

About

This survey is carried out by the graduate students from <a href=“https://www.urpl.wisc.edu/”>Department of Urban and Regional Planning</a> at the <a href=“https://www.wisc.edu/”>University of Wisconsin-Madison</a>. The survey is one of the tasks in PL 912: Planning Workshop under <a href=” <https://univercity.wisc.edu/>”> UniverCity Year</a> project, a year-long partnership between UW-Madison and the City of Monona. Under the supervision of faculty, students collaborate with City of Monona to work on issues in housing and transportation.

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Conclusion

The survey reveals large discrepancy between potential numbers of children who can walk or bike to school and number of children who actually work or bike to school. There are close to 50% less children who actually walk or bike to school than the expected number based on their traveling distance to school. It is important to understand reasons that deter children from walking or biking to school.

Parents who let their children walk or bike to school largely feel optimistic about the safety of the route to school. On the contrary, the majority of parents who do not allow their children to walk or bike feel the route to school is not at all safe or somewhat unsafe. When they are asked to identify why or why not letting their children to walk or bike to school, speed of traffic, and amount of traffic, sidewalk, and weather are the important factors cited by both sides. For children who do not walk or bike to school, parents would allowed the children to walk or bike if sidewalk, speed of traffic, and amount of traffic are improved.

The parents also indentify roads and intersection that have safety concerns. In particular, Winnequah Road and Monona Drive are the most mentioned roads where parents have safety concerns for their children.

In short, the parent survey reveals important information about

the children who live less than 1 mile (48.7%) can walk to school in 20 minutes at a walking speed of 3 miles per hour(mph). In addition, the students who live less than 2 miles (71.90%) can bike to school in 15 minutes at a 8mph biking speed

If you have 1000 piles of water and one of them is poisoned. You have to find the poisoned water out by using pig to test the water. If the water is poisoned, the pig will die in 15 minutes after drinking the water. You have only 60 minutes to find the poisoned water. What is the minimum number of pig you need to find the poisoned water? Explain.