

Introduction & Problem

Pedestrian safety has a larger influence on those who commute by foot each day, but pedestrian safety affects everyone at some point. Pedestrian safety is especially important for students, since they are among the most vulnerable road users. College campuses are heavily trafficked areas by both pedestrians and vehicles. Ensuring pedestrian safety for students can help to prevent injuries/deaths, and promote public health by encouraging students to incorporate walking into their daily routine. Car accidents are the leading cause of death (not including health related deaths). That being said, cars are the biggest threat to pedestrians.

- The CDC estimates that there were 104,000 emergency room visits by pedestrians for non-fatal crash related injuries.
- According to Sally Morin Law, "the most common cause of serious pedestrian injuries occur when drivers fail to stop at low-visibility stop signs or traffic lights"
- Drivers under the age of 25 are statically the most likely age group to be involved in an accident (Hawkins,2022).

Research Design & Conceptual Framework

My capstone study consisted of three parts.

1. A literature review on previous pedestrian safety studies.
2. An observational study to understand students walking habits.
3. I passed out a survey to evaluate students perceived habits.

Literature Review

I conducted a literature review on the effects safety infrastructure has on driver's and pedestrians and found that:

- The rate of pedestrian crossings increased when pedestrian crossing safety systems were implemented. This increase comes from an increase in pedestrian confidence.
- Cars were more likely to stop and give right-of-way at highly visible cross walks. Highly visible cross walks decrease waiting times for pedestrians, in turn decreasing preemptive crossings.
- Pedestrian safety infrastructure at crosswalks create safe drivers. Vehicles mean speed decreased by nearly 20% at high-visibility crosswalk compared to low-visibility.

Research Question

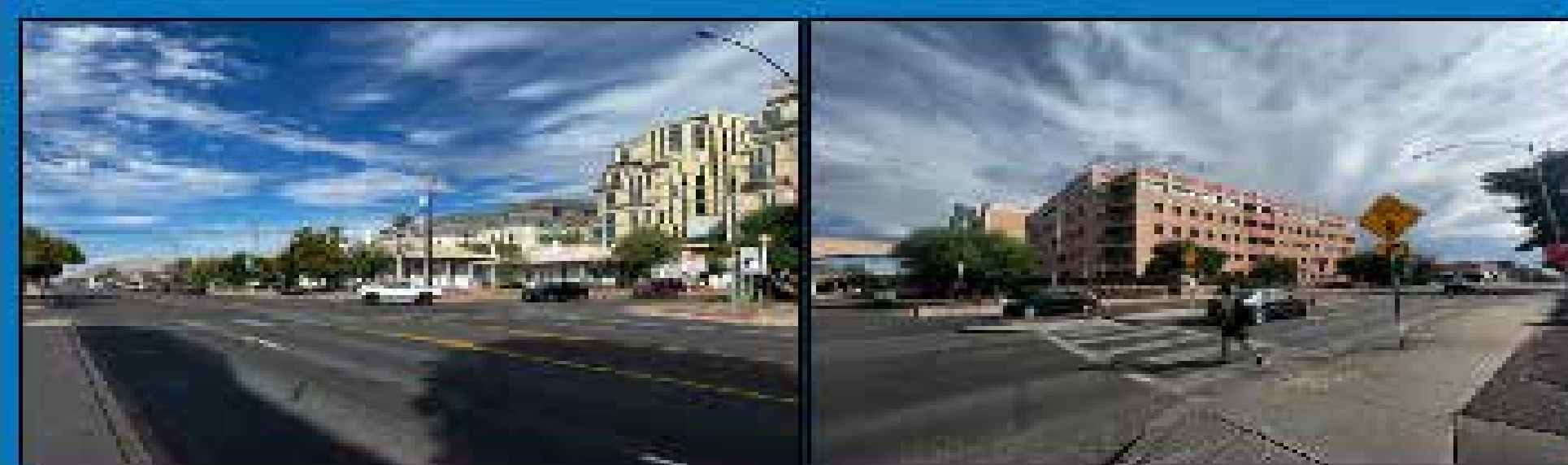
Do college students intentionally utilize safer crosswalks when traveling as pedestrians?

Understanding student's pedestrian habits can encourage the city to implement pedestrian infrastructure in more places around the University. Understanding student's perception of pedestrian infrastructure will help the city cater to their needs and promote a safe, walkable area surrounding the campus.

Observational Results: Crossing N. Euclid Ave Map of Study Area



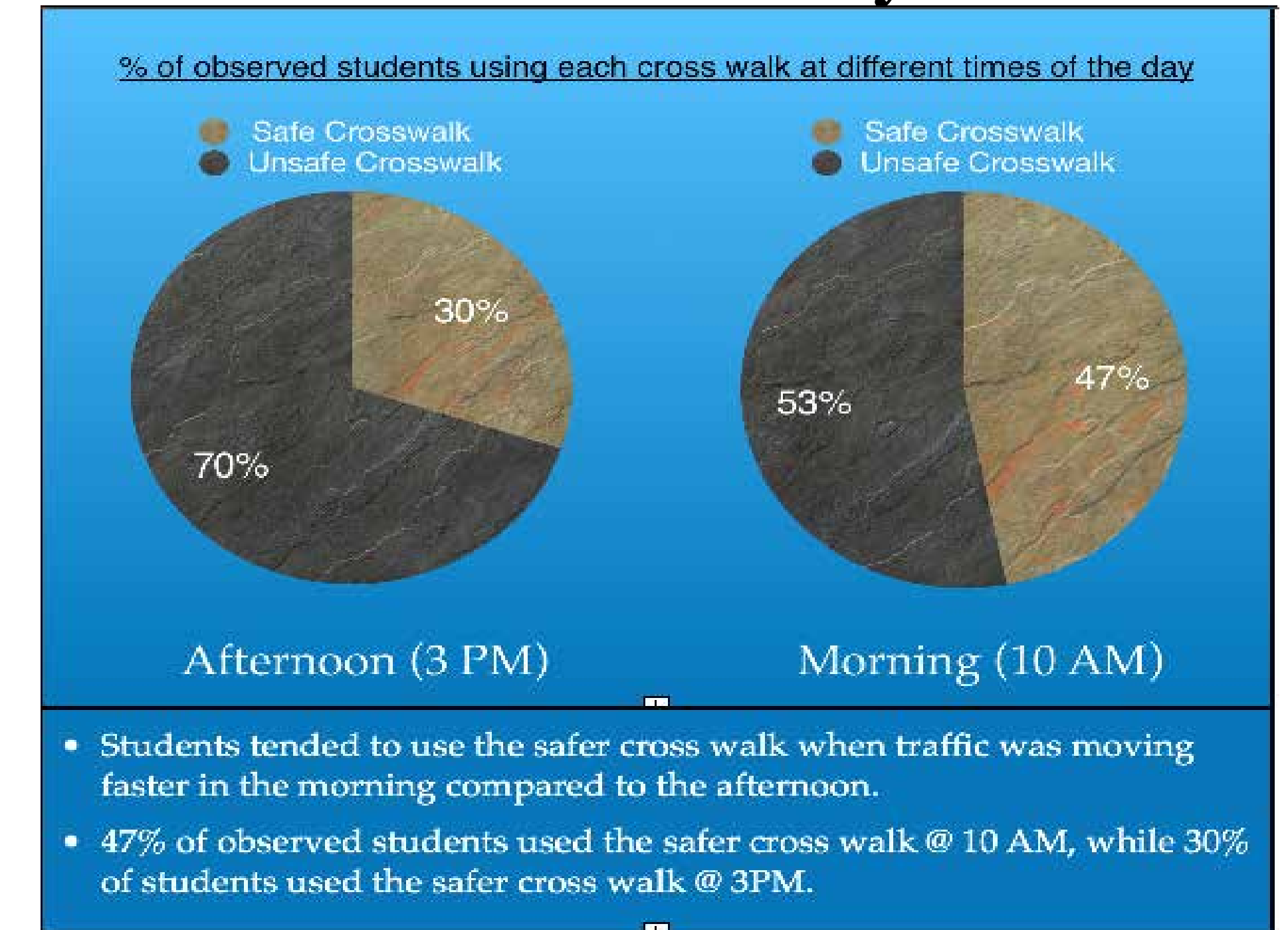
Unsafe (E 1st street crossing N. Euclid) Safe (E 2nd street crossing N. Euclid Ave.)



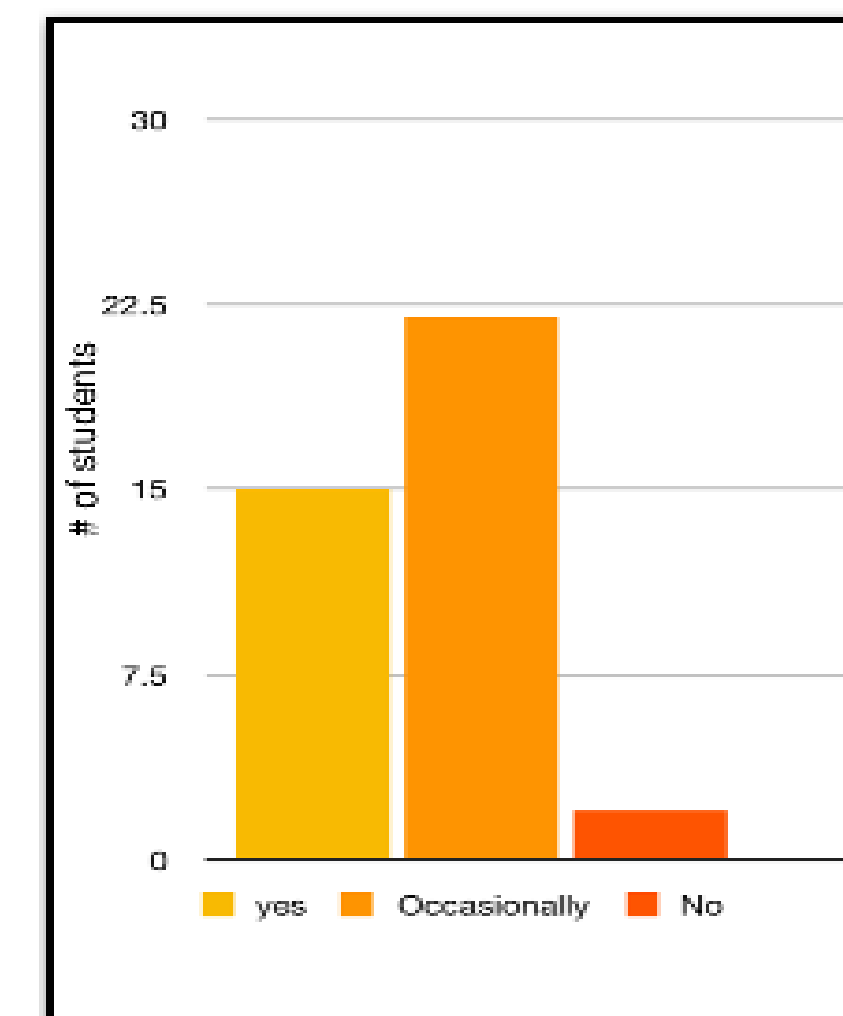
Observations and Survey

I observed and surveyed students crossing N Euclid Ave, across the street from campus. I counted how many students crossed each crosswalk. I observed two crosswalks, one on E First Street and the other on E Second Street. I observed from 9:30-10:30 and from 2:40 to 3:40 in hope of observing students going to and from class.

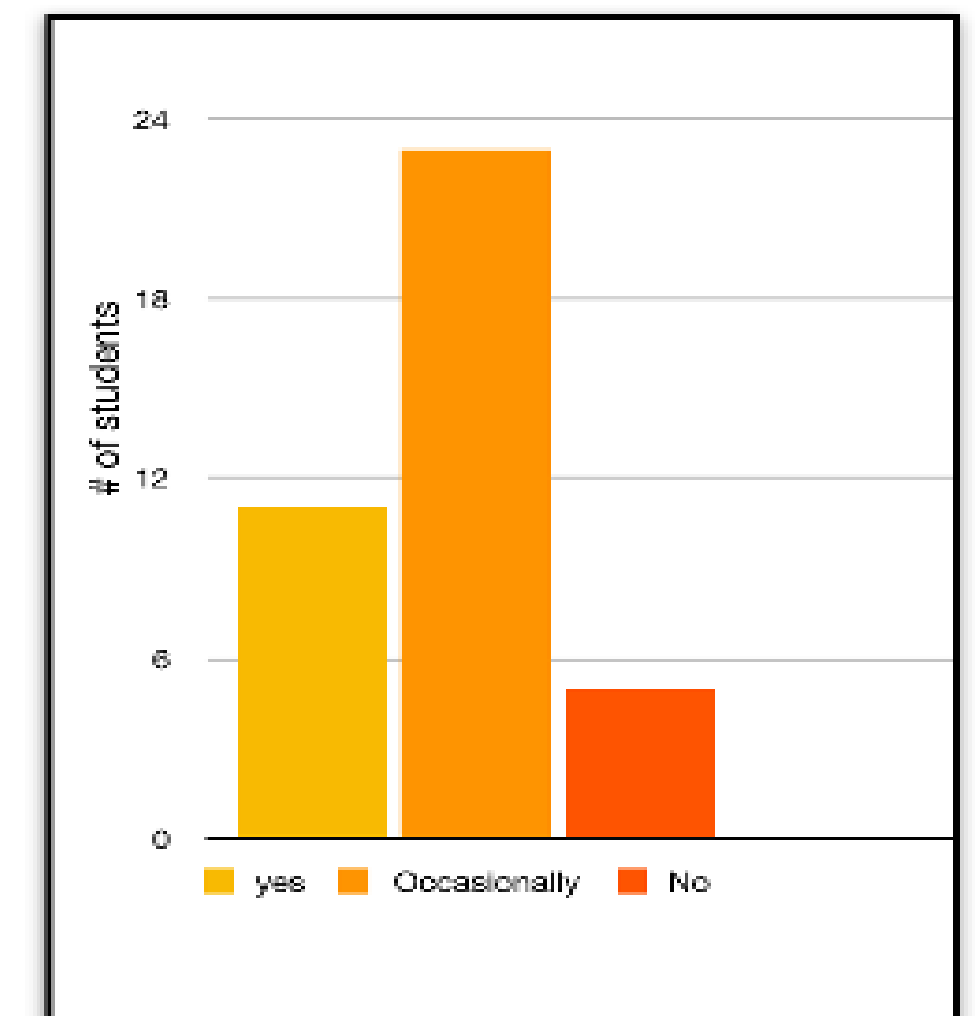
Observational & Survey Results



Responses of surveyed students: Do you intentionally use cross-walks with pedestrian safety infrastructure?



Responses of surveyed students: Do you go out of your way to use cross-walks which feel safer or that have pedestrian safety infrastructure?



- Surveyed students said that they do intentionally use safer cross walks, but observed students did not intentionally use the safer cross walk.
- 80% of students surveyed said they do, or occasionally do, intentionally use safer cross walks. 38.5% of the time observed students used the safer cross walk.

Conclusion

When implementing cross walks around college campuses, there should be high-visibility safety infrastructure at each cross walk. Students are not willing to go out of their way to use high-visibility crosswalks, unless there are more dangerous conditions (traffic speeds). Students know when traffic looks like it's moving fast and unsafe, so they more frequently chose the high visibility crosswalk. The survey results found that students perceived that they had safe walking habits while the observation found otherwise.