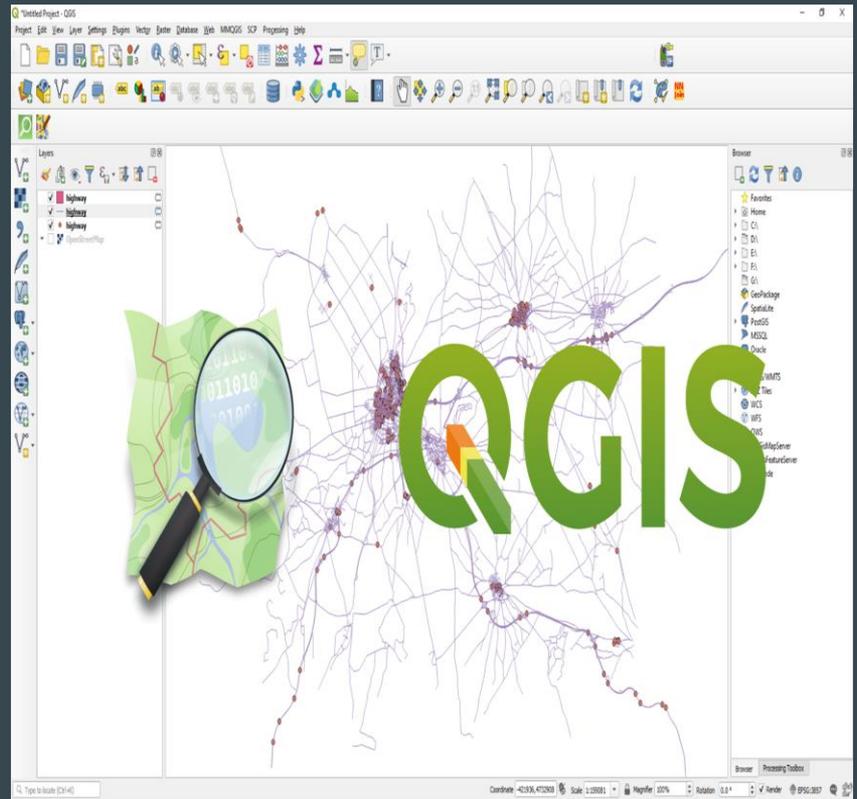
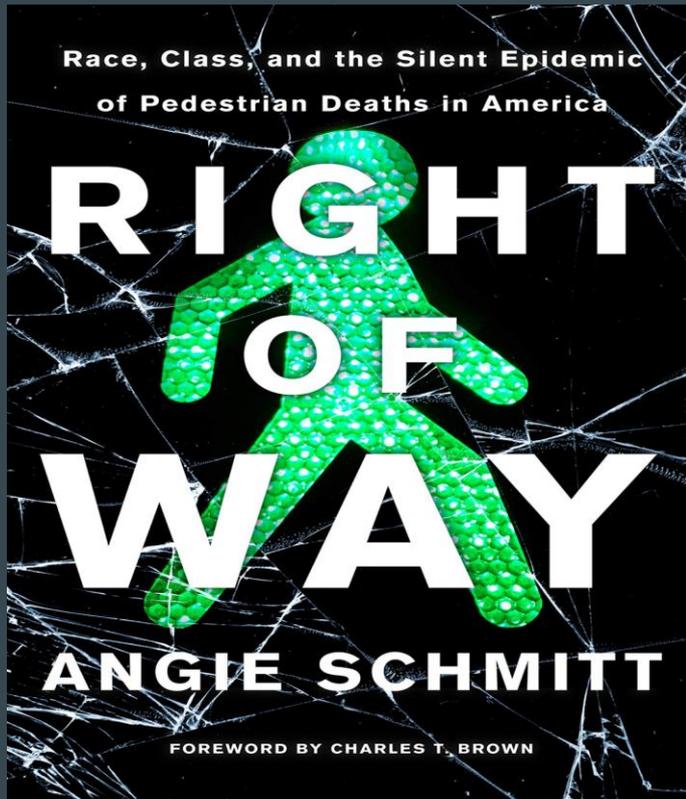


Pedestrian Safety Research



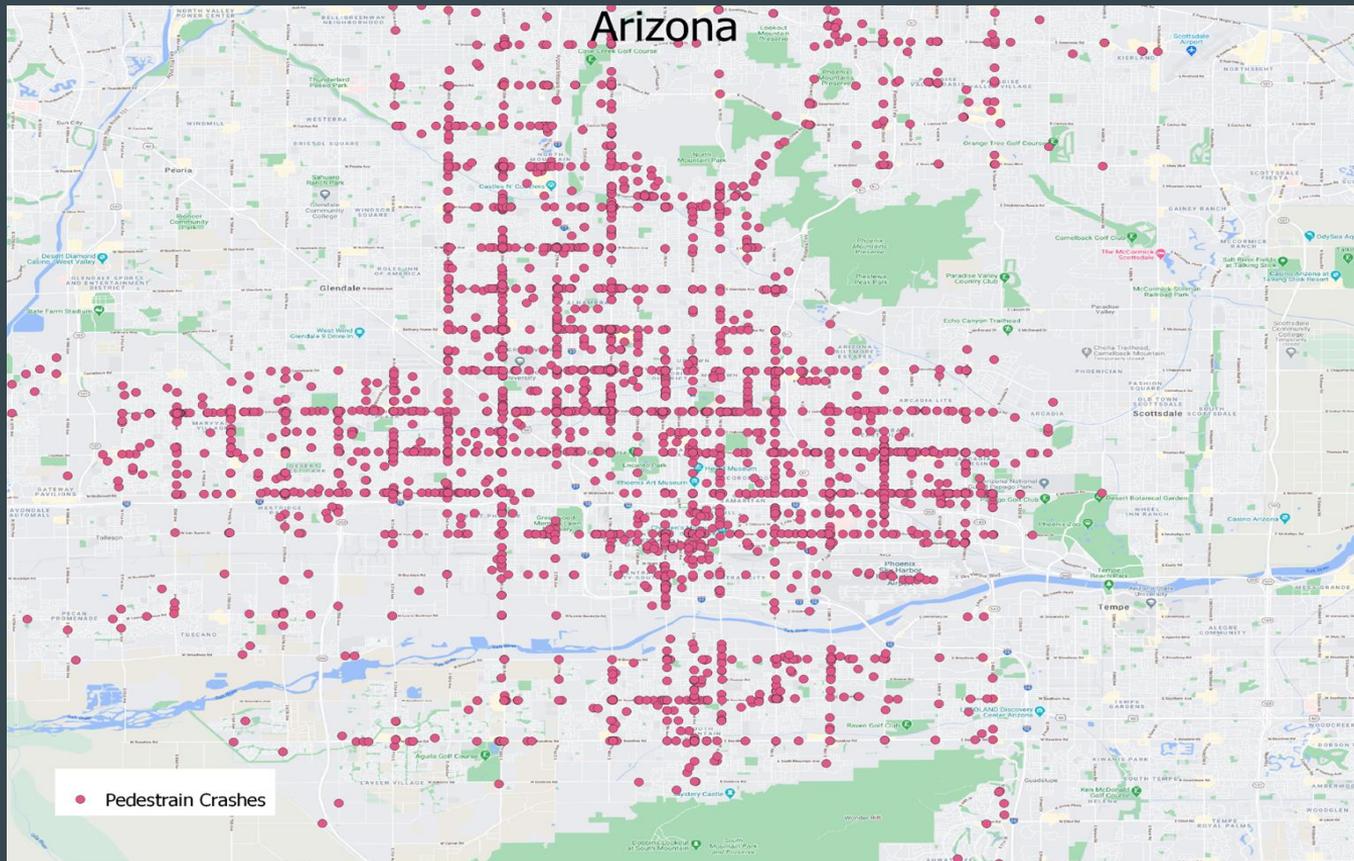
By: Adam Costello, Alyson Hulet, & Chelsey Aubol Srnsky



How we got started

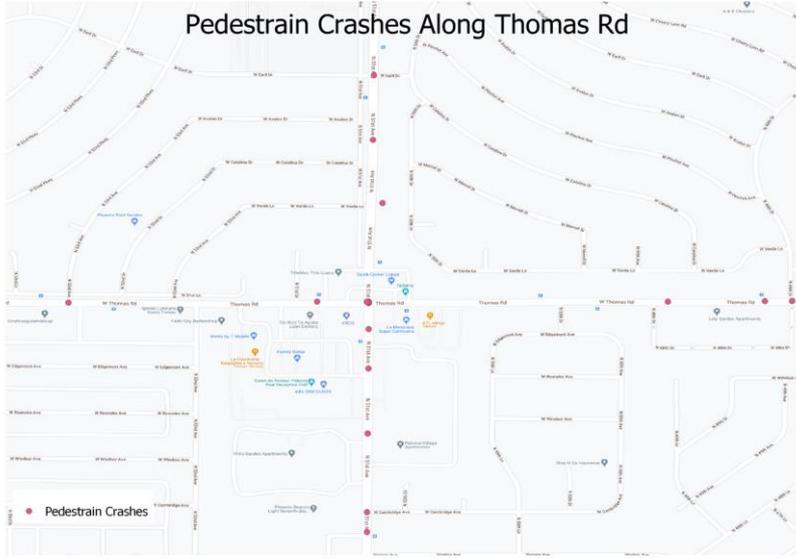
Currently, the amount of severe pedestrian crashes in Phoenix are increasing at an alarming rate. This can have far-reaching effects on the capacity of the city to ensure the mobility, safety, and equity of its residents.

- “In the United States, about 50 % more people die while walking or using a mobility device today than a decade ago.” (Angie Schmidt, *Right of Way: Race, Class, and the Silent Epidemic of Pedestrian Deaths in America*)
- Over that same period the city of Phoenix has undergone a 91% rise in pedestrian fatalities. (City of Phoenix, Office of Pedestrian Safety)
- “Pedestrian deaths are not just random acts of God or bad luck, nor are they the result of individual decision-making or laziness. Pedestrian deaths are part of a systemic problem with systemic causes.” (Angie Schmidt, *Right of Way: Race, Class, and the Silent Epidemic of Pedestrian Deaths in America*)



Phoenix Pedestrian Crashes Data

Pedestrian Crashes Along Thomas Rd

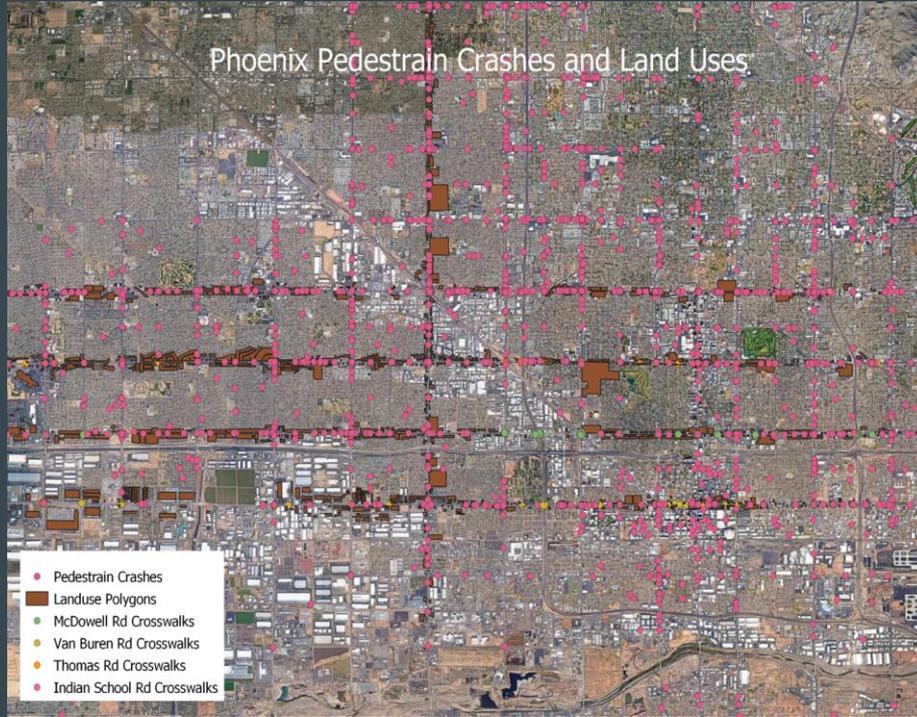


Pedestrian Crashes Along Thomas Road

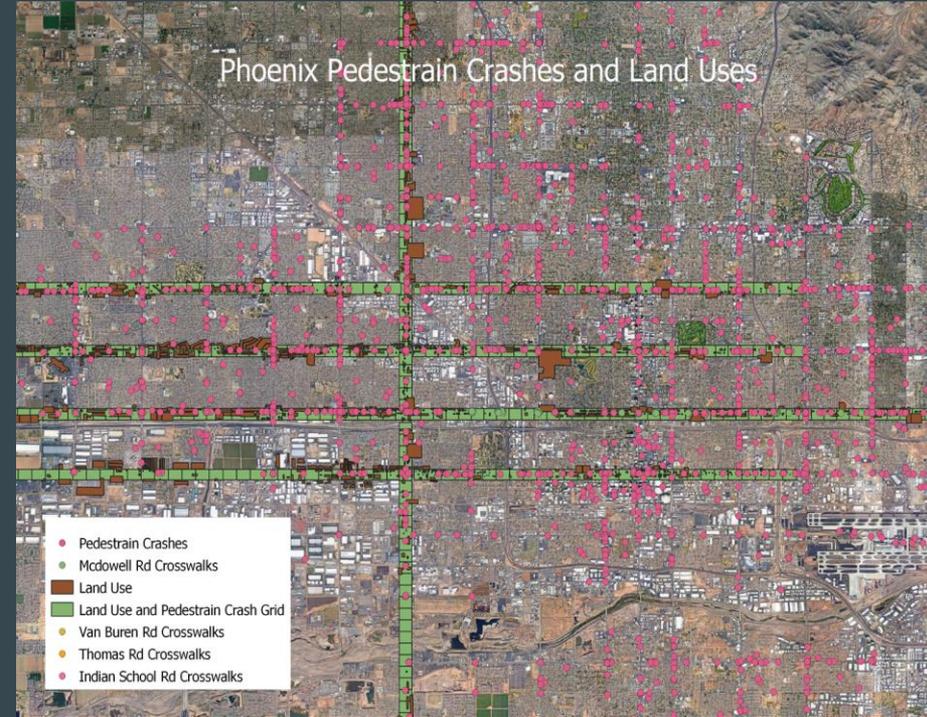


How we collected our data

Phoenix Pedestrian Crashes and Land Uses



Phoenix Pedestrian Crashes and Land Uses

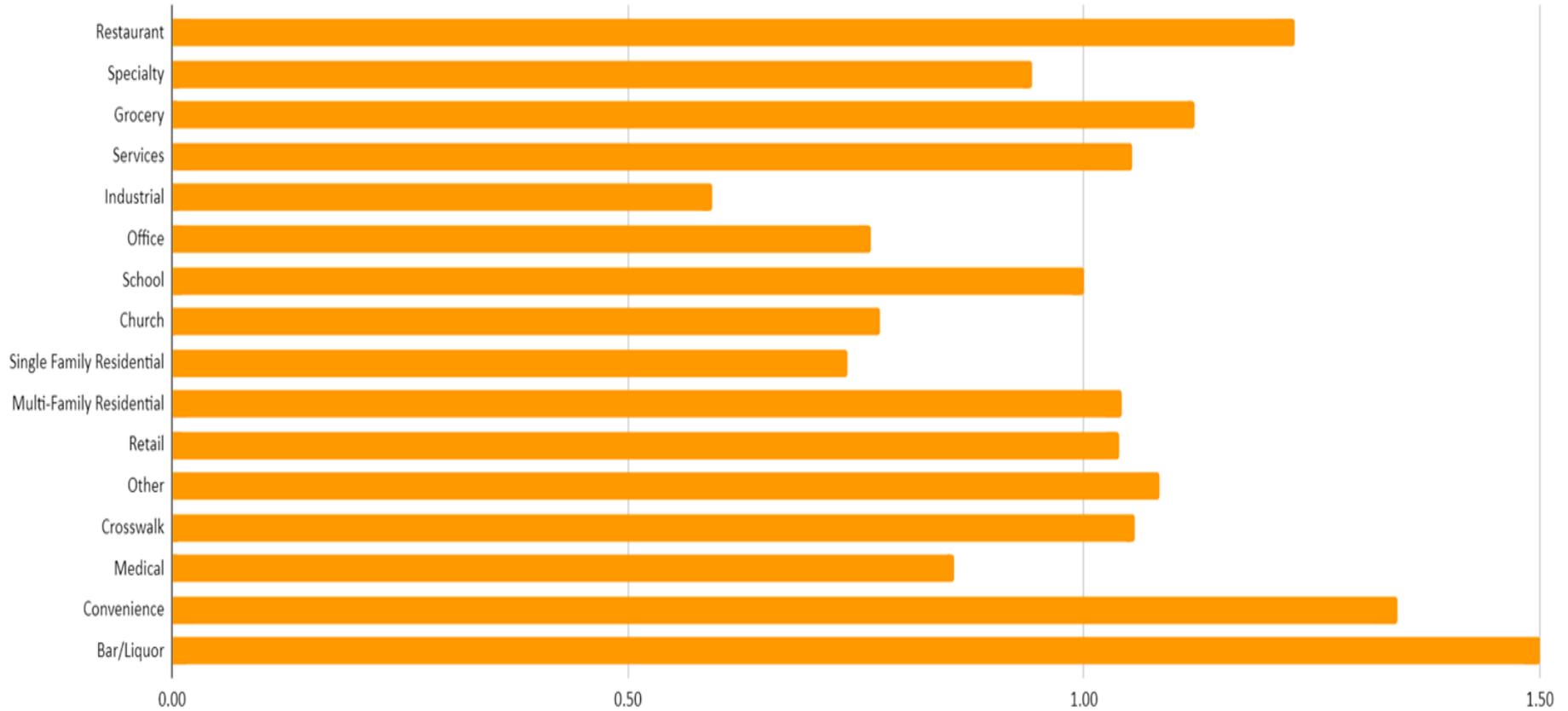


How we collected our data

	Restaurant	Specialty	Grocery	Services	Industrial	Office	Church	School	Retail	Other	Medical	Convenience	Bar/Liquor	Single Family Resid.	Multi Family Resid.
% of grids w/use	44	22	15	52	14	15	19	18	46	9	2	25	7	56	30
% of this use w/ severe crash	56	53	50	55	31	40	95	48	52	44	57	61	54	38	49
% of severe crashes in grid w/use	71	27	22	72	11	15	20	24	63	13	2	44	13	54	41

Severe Crashes

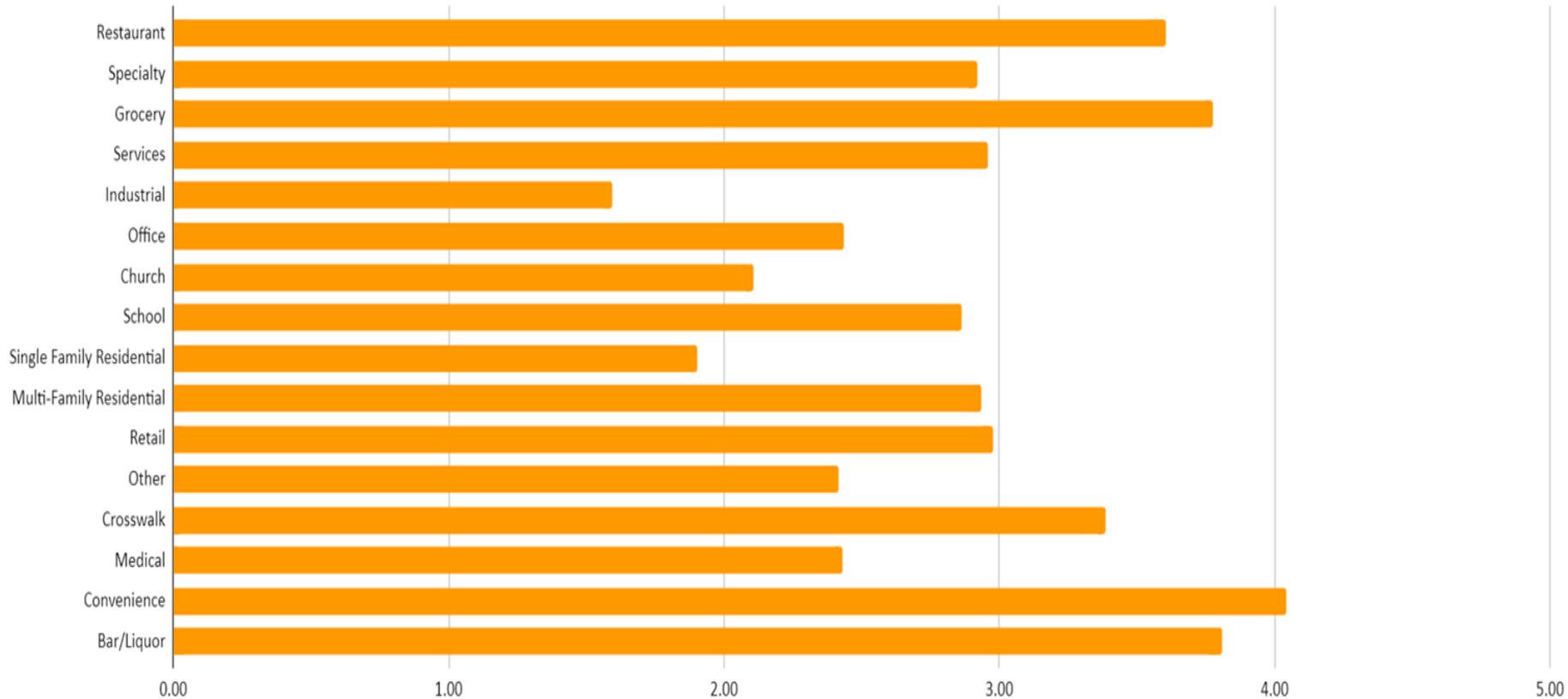
Severe Crashes Per 1000 Arterial Feet With Use



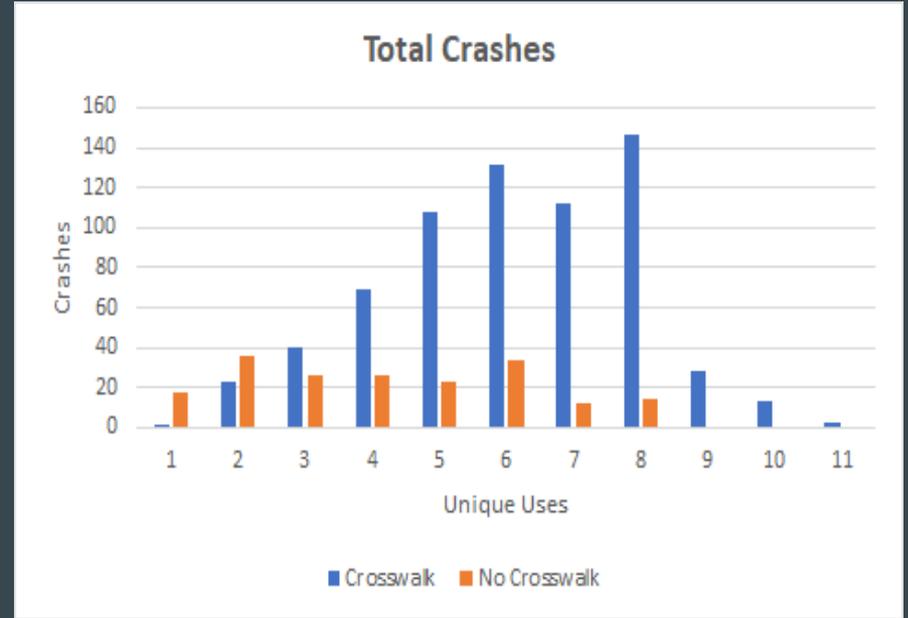
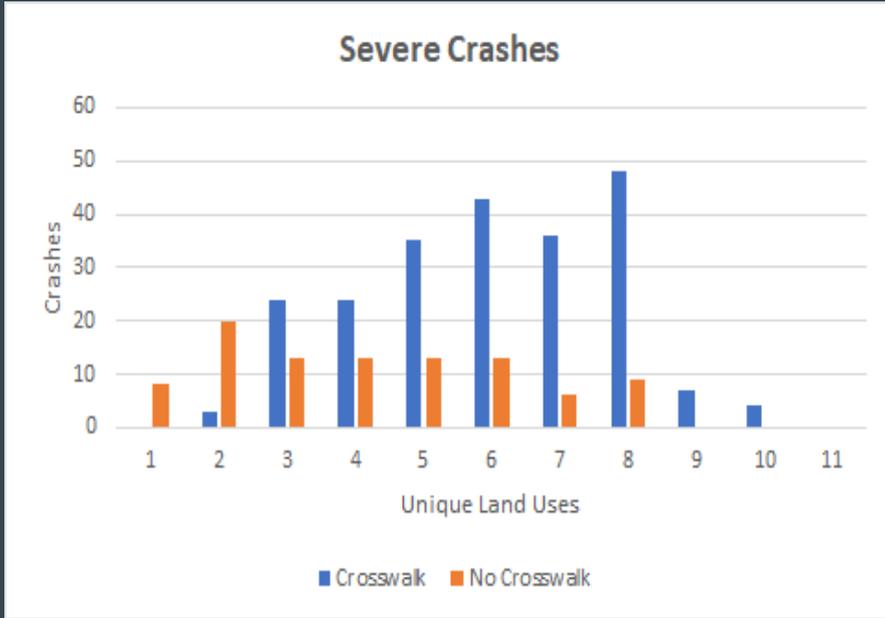
	Restaurant	Specialty	Grocery	Services	Industrial	Office	Church	School	Retail	Other	Medical	Convenience	Bar/Liquor	Single Family Resid.	Multi Family Resid.
% of grids w/use	44	22	15	52	14	15	19	18	46	9	2	25	7	56	30
% of this use w/ crash	79	77	71	72	76	46	67	71	75	72	71	86	92	63	74
% of crashes in grid w/use	72	30	25	71	10	17	19	24	63	10	2	46	11	49	41

Total Crashes

Crashes Per 1000 Arterial Feet With Use



Approximately 50% of Grid Cells surveyed contained at least 1 Crosswalk



Crosswalk Effects on Crashes in Study

- There is a correlation between land use and presence of pedestrian crashes
- Design and implementation of road infrastructure can also determine the location of pedestrian collisions.
- Significant implications for how we can zone & design layouts for the cities to prioritize pedestrian safety.
- Work in progress

Conclusion

- Establishing a concise universal system for mapping out land uses.
- Incorporate other methodologies for analyzing data.
- Identifying other aspects of the built environment to include in the study.

Things we would change moving forward