Efficacy of 20 is Plenty East Washington Ave Speeds



Transportation Planning and Policy Board October 4, 2021



City of Madison / Transportation / Initiatives / Vision Zero / Vision Zero Projects / 20 is Plenty

20 is Plenty

20 is Plenty is a program centered on the idea that a speed limit of 20 mph is appropriate for local, residential streets. The purpose of the program is to increase the safety of pedestrians, bicyclists, and motor vehicles on local streets. The 20 is Plenty program is specifically focused on reducing speeds on local streets in neighborhoods and not larger streets that carry higher volumes of traffic.



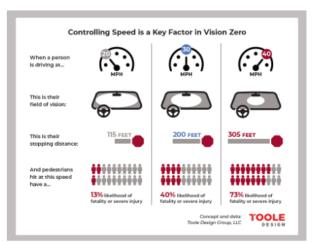
Initiatives

Bus Rapid Transit

Complete Green Streets

Let's Talk Streets

Dangers of Speeding



Understanding the dangers of speeding is critical to the 20 is Plenty program. Traveling at a high rate of speed increases the distance it takes for a vehicle to come to a stop for two different reasons. The first is a driver's reaction time. If there were to be a change in the roadway, like a child's basketball rolling into the street, then a vehicle would travel a certain distance before the driver could react to the change in the environment and their foot hits the brake. They would travel a given distance before they even begin to slow down.

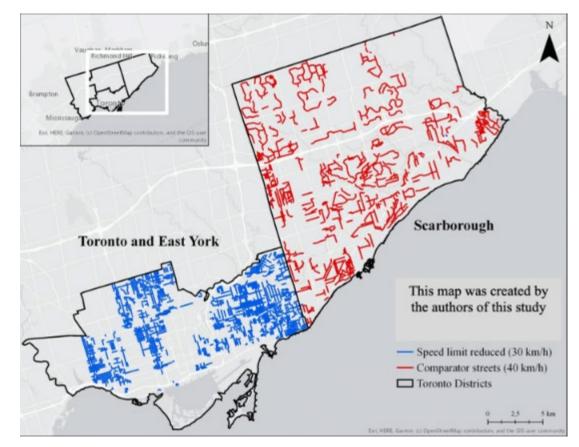
MetroForward>>	+
Transportation Demand Management	+
Vehicle Registration Fee	
Vision Zero	-
Partners and Stakeholders	
Resources	
Safety Data	
Vision Zero Projects	-
20 is Plenty	

Additionally, once the vehicle begins to

Toronto Canada – BMC Public Health

Toronto observed a 28% decrease in pedestrian motor vehicle collisions and a 67% decrease in severe injuries and fatalities within areas where the posted speed limit was reduced to 30 km/hr (= 18.6 mph). Not significantly significant.

"A major strength of this study is the controlled pre-post design, which compared PMVC rates on the same streets where speed limits were decreased from 40 km/h to 30 km/h to the PMVC rates on comparator streets. The large magnitude of the effect on treated streets (28%) compared with the small, not statistically significant decrease in pedestrian collisions on comparator streets (7%) suggests that the effect is likely due to the intervention."





Effect of Residential Street Speed Limit Reduction from 25 to 20 mi/hr on Driving Speeds in Portland, Oregon

"The largest difference in the before and after periods was observed for the proportion of speeds exceeding 30 mi/hr which decreased by 1.66% (from 6.49% to 4.83%). "

SE 116th Ave, North of Boise St. (38)	43		
NE Alberta St., West of 80th Ave (24)	1.84%		
NE Fremont St., East of 148th Ave (25)	1.80%		
N Campbell Ave, South of N Simpson St. (2)	1.53%		
SE 114th Ave, North of Boise St. (37)	1 .52%		
SE Cora St., East of 138th Ave (46)	1.32%		
SE 125th Ave, North of Clinton Ct. (39)	0.72%		
NE 37th Ave, North of Broadway (14)	0.47%		
SE Alder St., West of 115th Ave (44)	0.46%		
SE 113th Ave, North of Pine St. (36)	0.45%		
N Midway Ave, South of Mears St. (5)	0.43%		
NE 62nd Ave, South of Hancock St. (16)	0.32%		
SE 71st Ave, North of Reedway St. (34)	0.25%		
SE Franklin St., East of 26th Ave (48)	0.22%		
SE Morrison St., West of 36th Ave (40)	0.22%		
NE Hancock St., West of 15th Ave (30)			
	0.14%		
NE 74th Ave, North of Fremont St. (17)	0.08%		
SW Twombly Ave, West of Hamilton St. (59)	0.05%		
NE 14th Ave, South of Fremont St. (12)	0.00%		
SE 48th Ave, South of Hawthorne Blvd. (33)	-0.04%		
NW Kearney St., West of 22nd Ave (29)	-0.06%		
NE 80th Ave, South of Clackamas St. (18)	-0.07%		
SE Maple Ave, South of Hawthorne Blvd. (49)	-0.09%		
NE 13th Ave, North of Failing St. (11)	-0.26%		
SE Alder St., East of 82nd Ave (43)	-0.30%		
NE Rosa Parks Way, East of 17th Ave (28)	-0.31%		
N Kellog St. North of St. Louis Ave (4)	-0.32%		
N Edison St., West of N Charleston Ave (3)	0.38%		
NE 52nd Ave, North of Hassalo St. (15)	-0.22%		
SE 25th Ave, North of Harrison St. (31)	-0.61%		
SE Reynolds St., East of 12th Ave (52)	-0.65%		
NE Graham St., West of Rodney Are (26)	-0.68%		
N Bowdoin Ave, East of Westann, Ave (1)	-0.73%		
SE Brooklyn St., East of 21, Ave (45)	-0.75%		
NE 109th Ave, North of Has alo St. (19)	-0.81%		
N Oregonian Ave, South of Mears St. (7)	-0.88%		
SW Kingston Ave, South of SW7 chner Dr. (56)	-0.86%		
NE 9th Ave, North of Th mpson St. (10)	-0.90%		
SE 80th Ave, South of Taylor Ct. (35)	-0.97%		
SE 168th Ave, South of Alder St. (42)	-0.98%		
N Schofield St., West of Denver Ave (8)	-1.10%		
SE Pine St., East of 12th Ave (51)	-1.40%		
SE 23rd Ave, South C Reedway St. (30)			
SW Davenport St., East of Ribins Crest Dr. (55)	-1.50%		
	-1.72%		
NE 114th Ave, South of Schuyler St. (20) SE Francis St., East of 33rd Ave (47)	-1.80%		
	-1.81%		
NE 117th Ave, North of Eugene St. (21)	-2.08%		
SWTroy St., East of 27th Ave (58)	-2.33%		
SE 141st Ave, North of Voodward St. (41)	-3.19%		
SE Yamhill St., Wet of 90th Ave (53)	-3.75%		
SW Ridge Dr., South of Evelyn St. (57)	-4.11%		
N Minnesota Ave, South of Simpson St. (6)	-6.00%		
N Willamette Blvd., West of Challeston Ave (9)	-6.09%		
SE 135th Ave, South of Shaman St. (40)	-8.43%		
SE 34th Ave, South of Jora St. (32)	-11.12%		
SE 39th Dr., South of Lie St. (54)	-21.28%		

Percent change in vehicles going over 30 mph

Site

Seattle Department of Transportation SPEED LIMIT CASE STUDIES

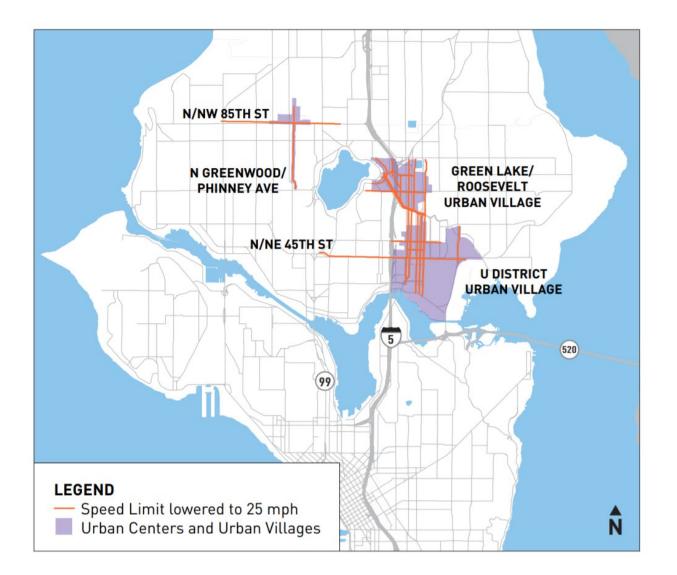




When SDOT signed streets for 25 mph, the data showed total crashes decline, injury crashes decline, 50th percentile speeds decline, 85th percentile speeds decline, and highend speeding decline for every location reviewed.

SDOT has found lowering speed limits and increasing sign density alone - absent any marketing campaigns, additional enforcement, retimed signal progressions, or engineering changes to the street geometry – resulted in <u>lower speeds</u> and fewer crashes.

July 2020



Crashes	All Crashes	Injury Crashes
Before	517	193
After	403	158
% Change	-22%	-18%

*Source: Seattle GIS Collisions (http://data-seattlecitygis. opendata.arcgis.com/)

Speeds	50th Percentile	85th Percentile	40+ MPH Speeders
Before	25.6 MPH	31.2 MPH	1119
After	23.1 MPH	29.0 MPH	513
% Change	-9.9%	-7.1%	-54.1%

East Washington Speeds



Governors Highway Safety Association The States' Voice on Highway Safety

Home State Highway Safety Office Resources news releases GHSA

Pedestrian Deaths Soar in 2020 Despite Precipitous Drop in Driving During Pandemic

Resource Type News Releases FOR IMMEDIATE RELEASE May 20, 2021

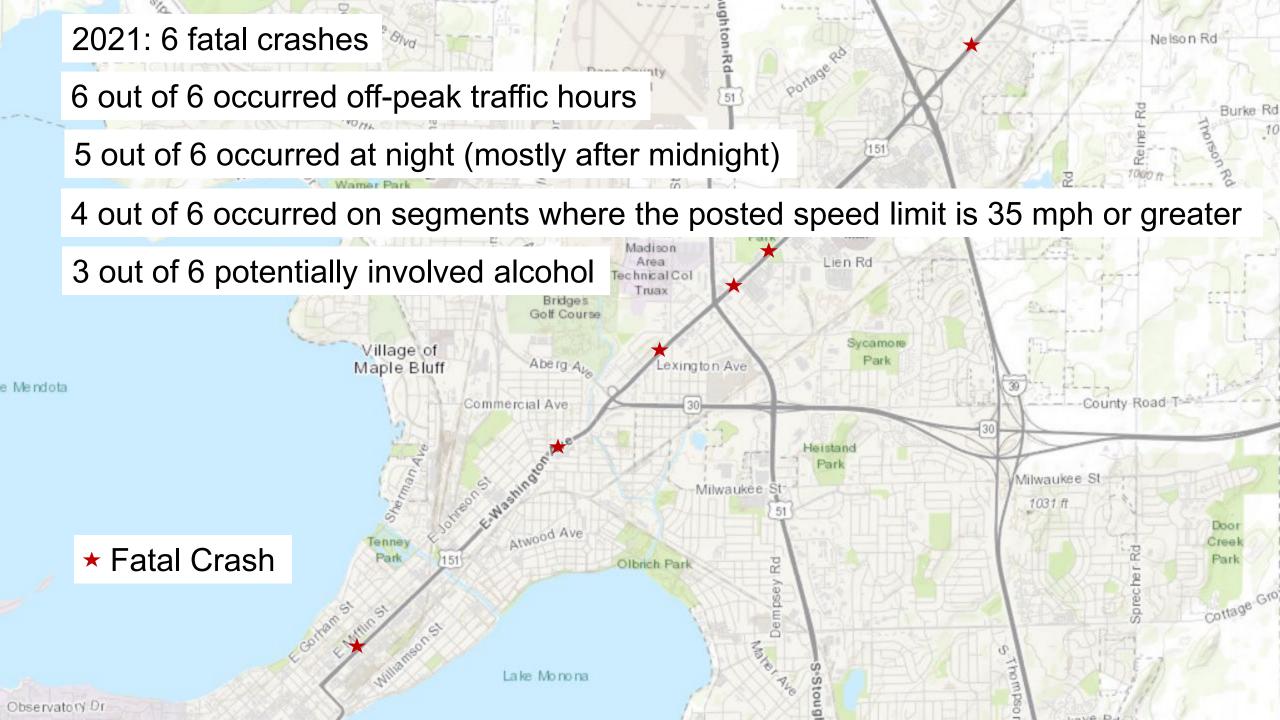
CONTACT: Adam Snider, 202-580-7930 202-365-8971 (after hours) Projected fatality rate for people walking spiked 21% for largest ever year over year increase

Projected fatality rate for people walking spiked 21% for largest ever year-over-year increase as dangerous driving and traffic violence plagued U.S. roads

WASHINGTON, D.C. – New data from the Governors Highway Safety Association (GHSA) projects that 2020 had the largest ever annual increase in the rate at which drivers struck and killed people on foot. What drove this surge? The likely culprits are dangerous driving like speeding, drunk and drugged driving, and distraction, which were rampant on U.S. roads during the COVID-19 pandemic, combined with infrastructure issues that have prioritized the movement of motor vehicles over walking and bicycling for many years.

In March, GHSA offered a preview of state and national pedestrian traffic deaths for the first six months of 2020 based on preliminary data reported by the State Highway Safety Offices (SHSOs) in all 50 states and the District of Columbia (D.C.). The report warned that while there were fewer drivers on the road, pedestrians remained at increased risk of being struck and killed by a vehicle. The new *Pedestrian Traffic Fatalities by State: 2020 Preliminary Data Addendum*, released today, provides the first look at projected pedestrian fatalities for the full year using additional preliminary data provided by the SHSOs.

GHSA projects there were 6,721 pedestrian deaths in 2020 – a 4.8% increase from the 6,412 fatalities reported by SHSOs the year before. Factoring in a 13.2% decrease in vehicle miles traveled (VMT) in 2020, the pedestrian fatality rate was 2.3 per billion VMT, a shocking and unprecedented 21% increase from 1.9 in 2019. This projection is the largest ever annual increase in the pedestrian death rate since the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) was established in 1975.



Interim High Injury Network

Acoherson St

2 K

0

Schlimgen Av

Commercial Ave

Anderson S

berg Ave (E

Commercial A

Par

Sth 30 (Wb) Sth 30 (Eb)

Dennett Dr

ahRoa

Lien R

Sycamore Ave

Milwaukee St

RdlUsh

J.

Rd

S

Rd (SI

Starker Ave

N Thomos

Cottage Grove Rd

- About 2/3 of all fatalities occur
- on 10% of streets e n

е

About 3/4 of all • severe injuries occur on 10% of streets

Vision Zero and Other Funding Improvements on E Washington Ave

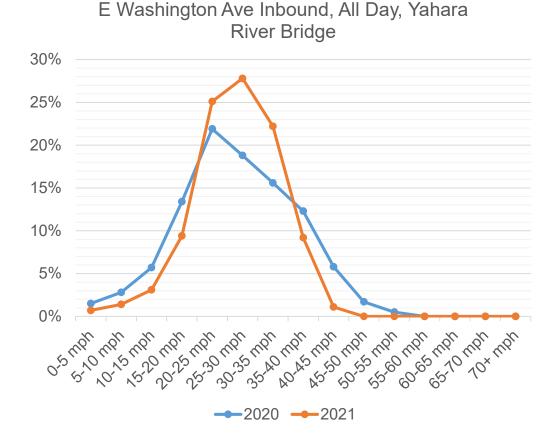
- Continental crosswalks & improved lighting at East Washington & Marquette
- RRFB at E Washington & Butler
- RRFB at E Washington & Rethke
- RRFB at E Washington & Blount
- RRFB at E Washington & 2nd
- Ped crossing signs at E Washington & Lexington
- Continental crosswalks & ped crossing signs at East Washington & Schmedemen

- Upgraded all crosswalks from Pinckney to Baldwin to continental crosswalks
- Installing bollards on median at E Washington/Livingston (should be done in 2 weeks)
- Reduced speed limit from Pinckney to Baldwin to 25 mph
- Reduced speed limit from Baldwin to Marquette to 30 mph
- Retimed traffic lights to promote reduced speed

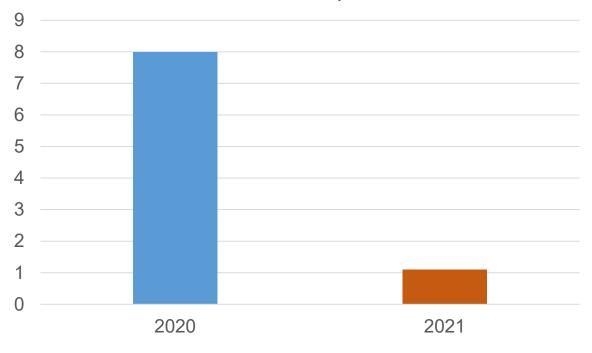
Additional Interim Measures So Far

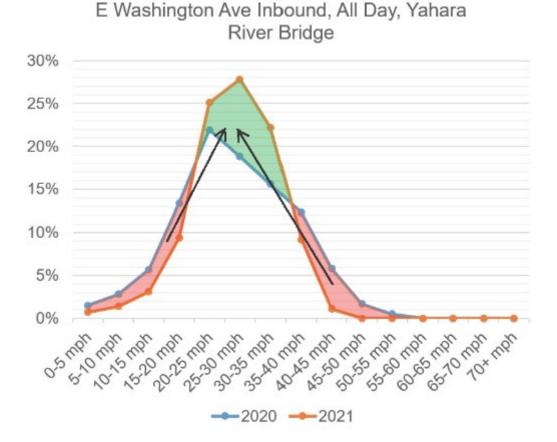
- Reducing capacity on weekends through barrels
- Improved lighting/tree trimming
- Signal timing adjustments
- Message boards
- Speed boards
- Experiment with creative messaging
- Increased enforcement: over 2,500 warnings and citations issued



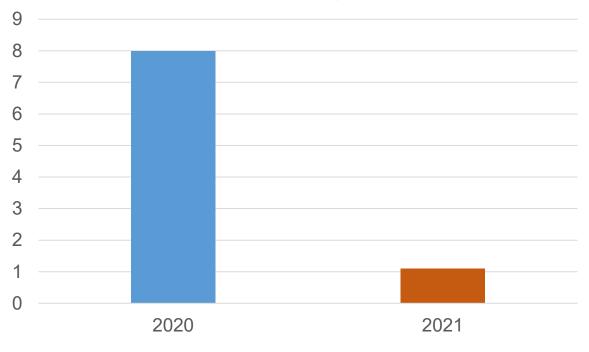


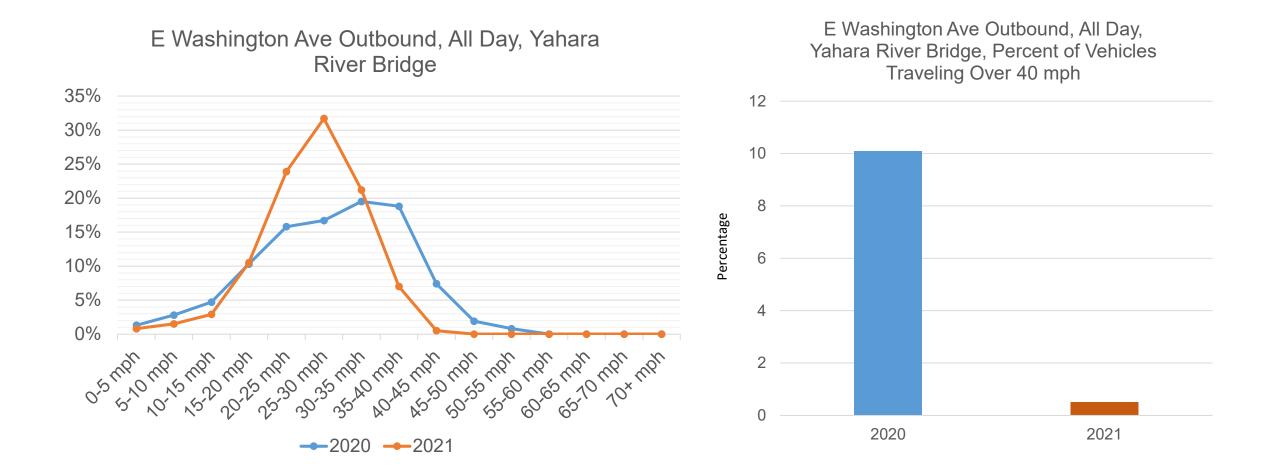
E Washington Ave Inbound, All Day, Yahara River Bridge, Percent of Vehicles Traveling over 40 mph

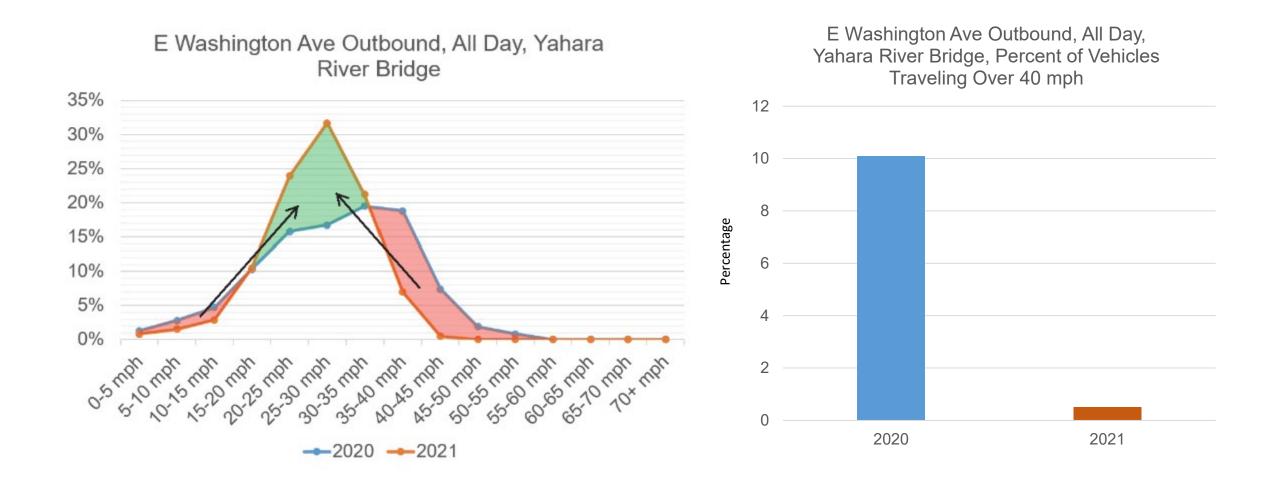


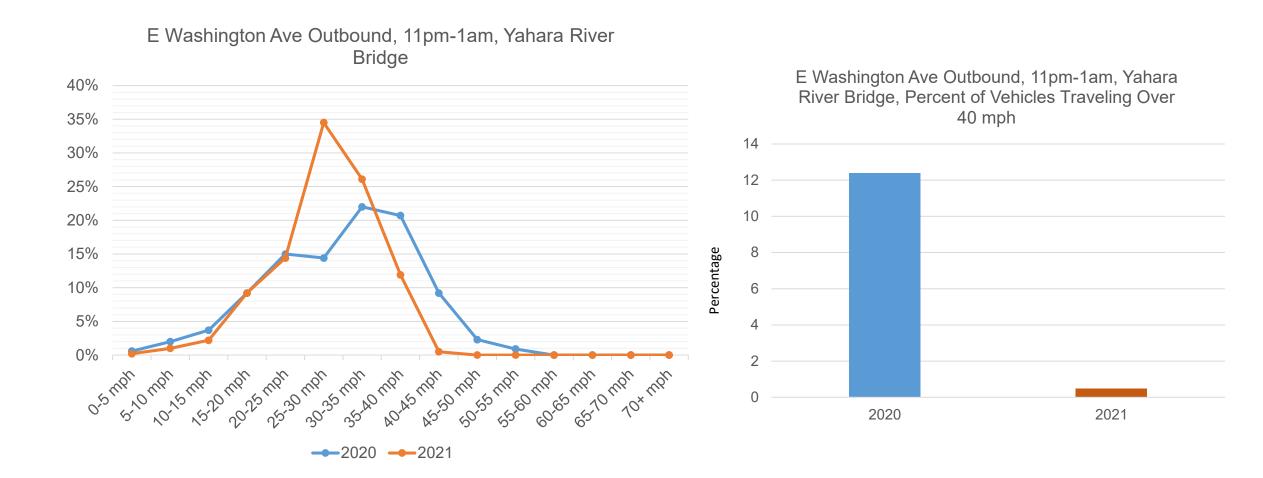


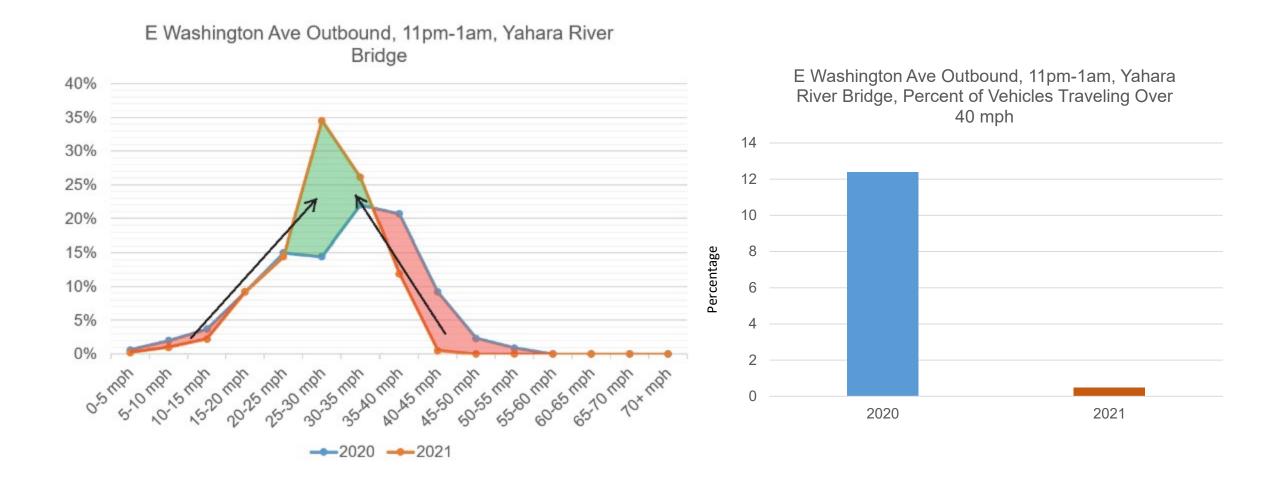
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Upcoming Measures: Creative Messaging



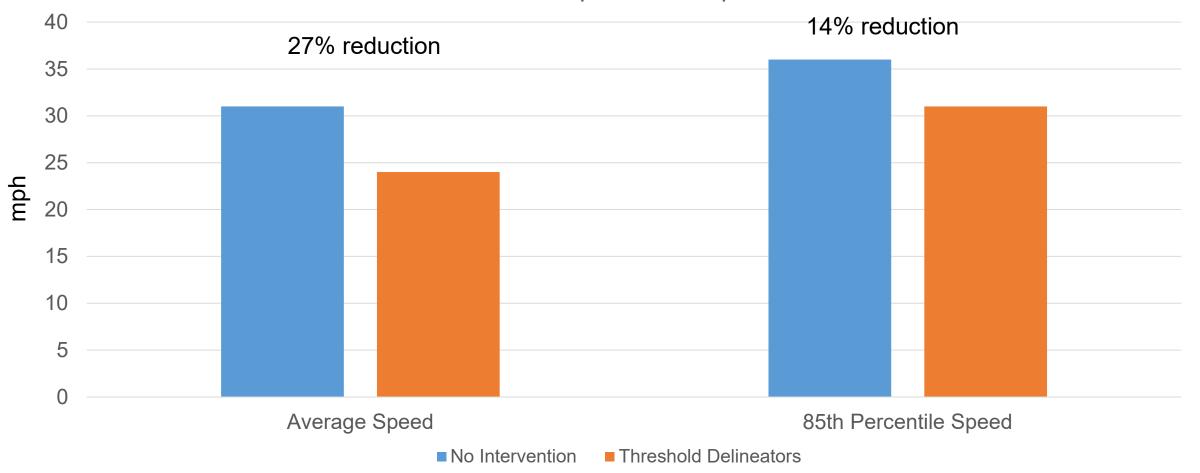


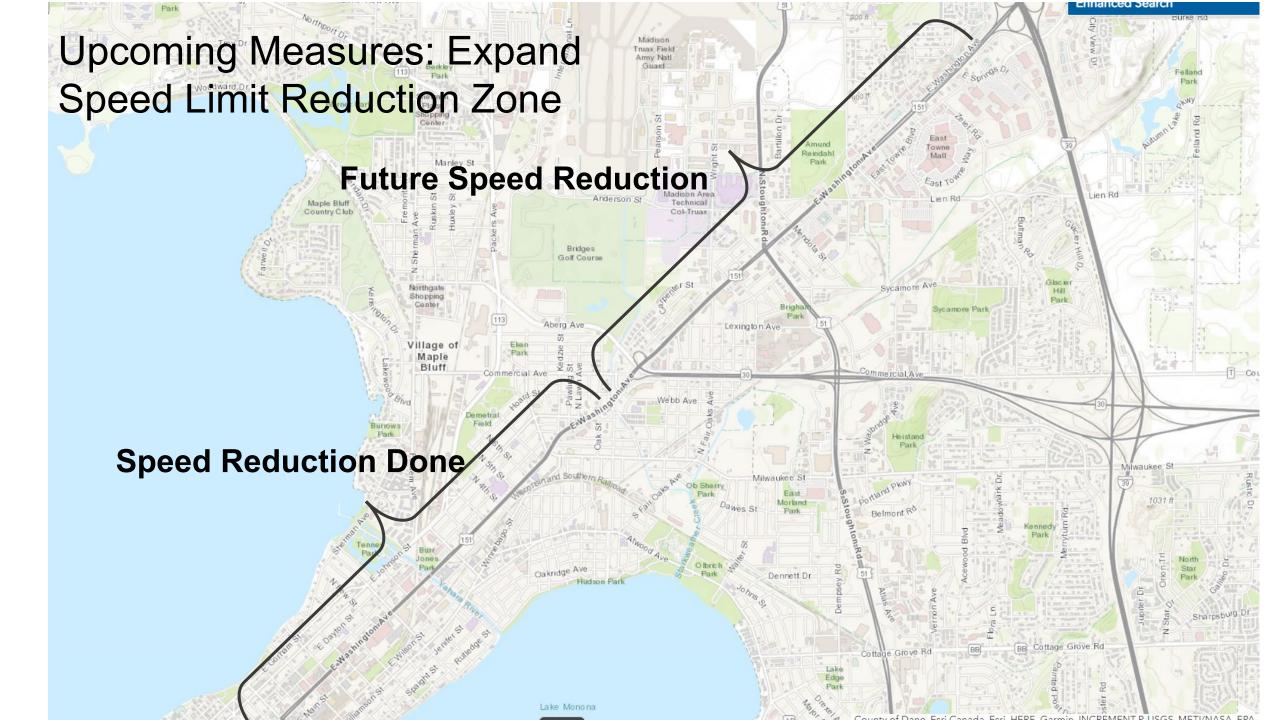
Upcoming Measures: Experimenting with gateway lane narrowing using delineators



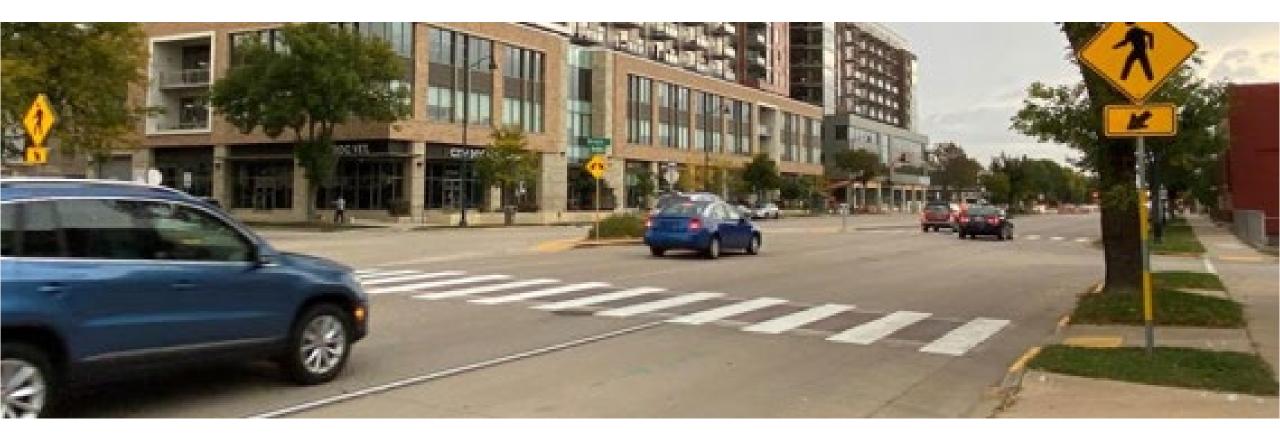
Efficacy of Threshold Treatment

10 am to 2 pm Weds Sept 14





Upcoming Measures: Expand Crosswalk Treatments



Longer Term Improvements

- More fundamental redesign
- Aggressive TDM (Transportation Demand Management)
- Modal shift from single occupancy vehicles to transit, bike and walk
- Reduction in VMT (Vehicle Miles Traveled)
- Automatic enforcement
- Socio-economic & culture

