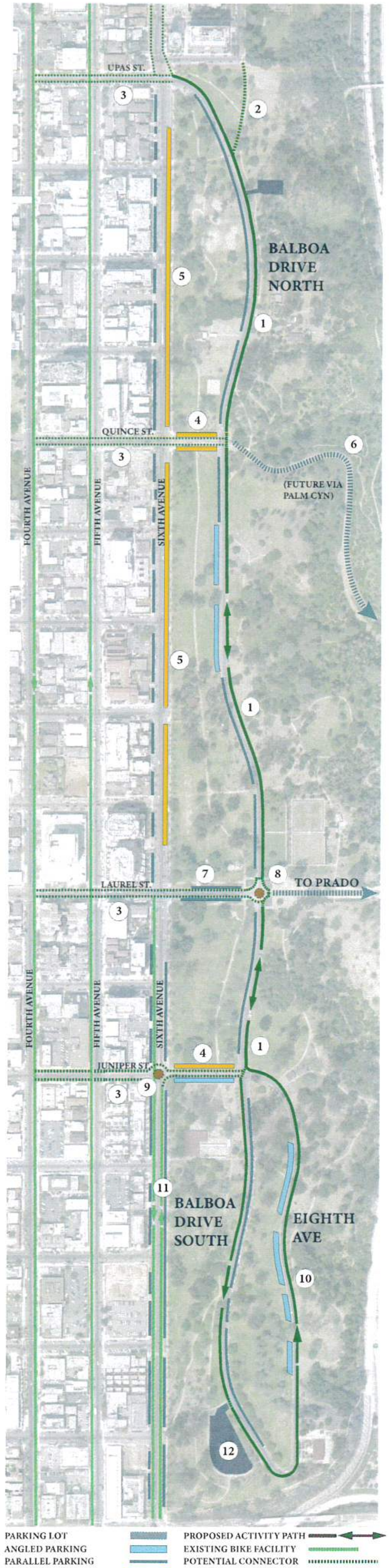
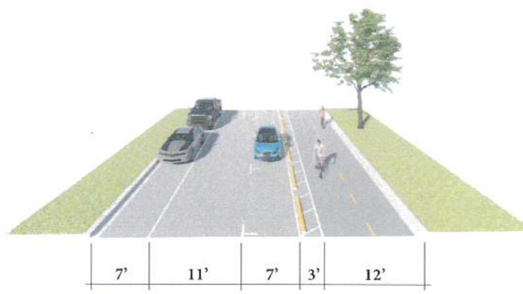


BALBOA DRIVE BIKE/ACTIVITY PATH

KEYNOTES

1. Proposed Balboa Drive Activity Track: 12' wide Class IV two-way separated cycle track begins at Upas St. and continues the length of Balboa Drive. Travelling to the Eighth Ave. loop and back would be 2.3 miles.
2. Optional cycle track connector to Marston House
3. Potential Class II side street connections to Uptown Bikeways increase active connections to Balboa Drive.
4. Potential new angled parking at park inlet roads. Could includes racks and service stand for bicycles.
5. Reverse angle parking along Sixth Ave could reduce demand for parking inside the park. A reduction in the width of Sixth Ave, combined with improved pedestrian crossings, would improve safety and access for all park users.
6. Quince Street Offramp: Conceptual closure of this offramp could provide new pedestrian trail through the canyon, over SR-163, and connecting to Palm Canyon/Plaza de Panama.
7. Ride share pick-up/drop-off zones at Laurel Street entry into the park could encourage car free visitors wishing to walk across the Cabrillo Bridge when visiting the Olde Globe Theater.
8. Conceptual roundabout at Sefton Plaza (Laurel and Balboa Dr.) could improve safety for bikeway users while providing a turnaround for Interpark shuttle. Coupled with Rideshare drop-off zone the West Mesa could become the primary access point for tourists visiting the park without a car.
9. Roundabout at Juniper and Sixth: Planned traffic circle would provide an excellent connection to Uptown Bikeways at the south end.
10. Balboa Drive/Eighth Ave Loop: 6' wide One-Way cycle track. Much of this loop is already red curb.
11. Sixth Ave south of Juniper: Riders heading north on the Class II facility south of Juniper could use Balboa Drive cycle track to Upas.
12. Marston Point: under-utilized parking lot/lookout. Conceptual pedestrian plaza designed to view harbor and serve as a gathering place for Fourth of July firework watching.



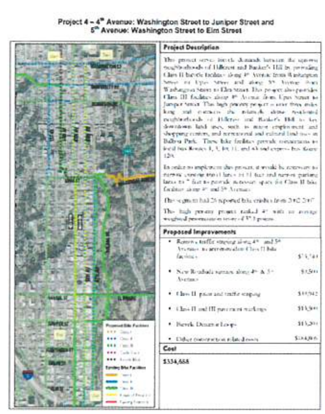
BALBOA DRIVE - 40' ROW

The Strand, Santa Monica

Golden Gate Park, San Francisco

Central Park, NYC

Griffith Park, L.A.



2009 HILLCREST MOBILITY PLAN

RE: Please Support Neighborhood Friendly Changes to Balboa Drive in Balboa Park

Dear Honorable Mayor Gloria and Councilmember Whitburn,

The recent Balboa Park Committee vote that endorsed additional parking over a multi-use trail along Balboa Drive is unacceptable; key Balboa Park stakeholders support making more space for people to walk, run, and roll inside our community park.

Uptown neighborhoods are fortunate to have Balboa Park as their closest neighbor. Its residents cherish its institutions and enjoy its open spaces possibly more than any other community. It is one of the few public parks accessible to Uptown residents since the community is deficient in public park lands. As such residents make the most of its lawns, trails, and roads for recreation.

Unlike some communities in San Diego, stakeholder groups surrounding the park have been strong allies of the City of San Diego as they work to meet their transportation and climate action commitments. Community members came out en masse at the January meeting of the Balboa Park Committee asking for a climate and park friendly solution for Balboa Drive. Therefore, it is ironic that in this instance city staff chose to strongly recommend and move forward with a design that ignores the community's stated preferences in favor of a less safe and less accessible west mesa.

A truly community centered approach to Balboa Drive would serve the needs of all users regardless of how they choose to enjoy the west mesa. It would promote activities like walking, running, and biking while maximizing the park experience. Promoting these kinds of park-oriented activities should be the starting point for any discussion around changes of use, not a secondary set of considerations.

Neither climate action nor Vision Zero will be served by prioritizing parking spaces inside our park. We must not think only about our present needs, but also our future, and which solution most closely aligns with the community spaces that we wish to create. To us that solution is a more walkable, bikeable, and naturally beautiful park experience on the west mesa.

Thank you for all the ways you listen to and support the communities and stakeholders surrounding Balboa Park. The signers of this letter respectfully request your consideration for a more community oriented solution for Balboa Drive.

Sincerely,

Anar Salayev
Executive Director
BikeSD

Will Rhatigan
Advocacy Director
San Diego County
Bike Coalition

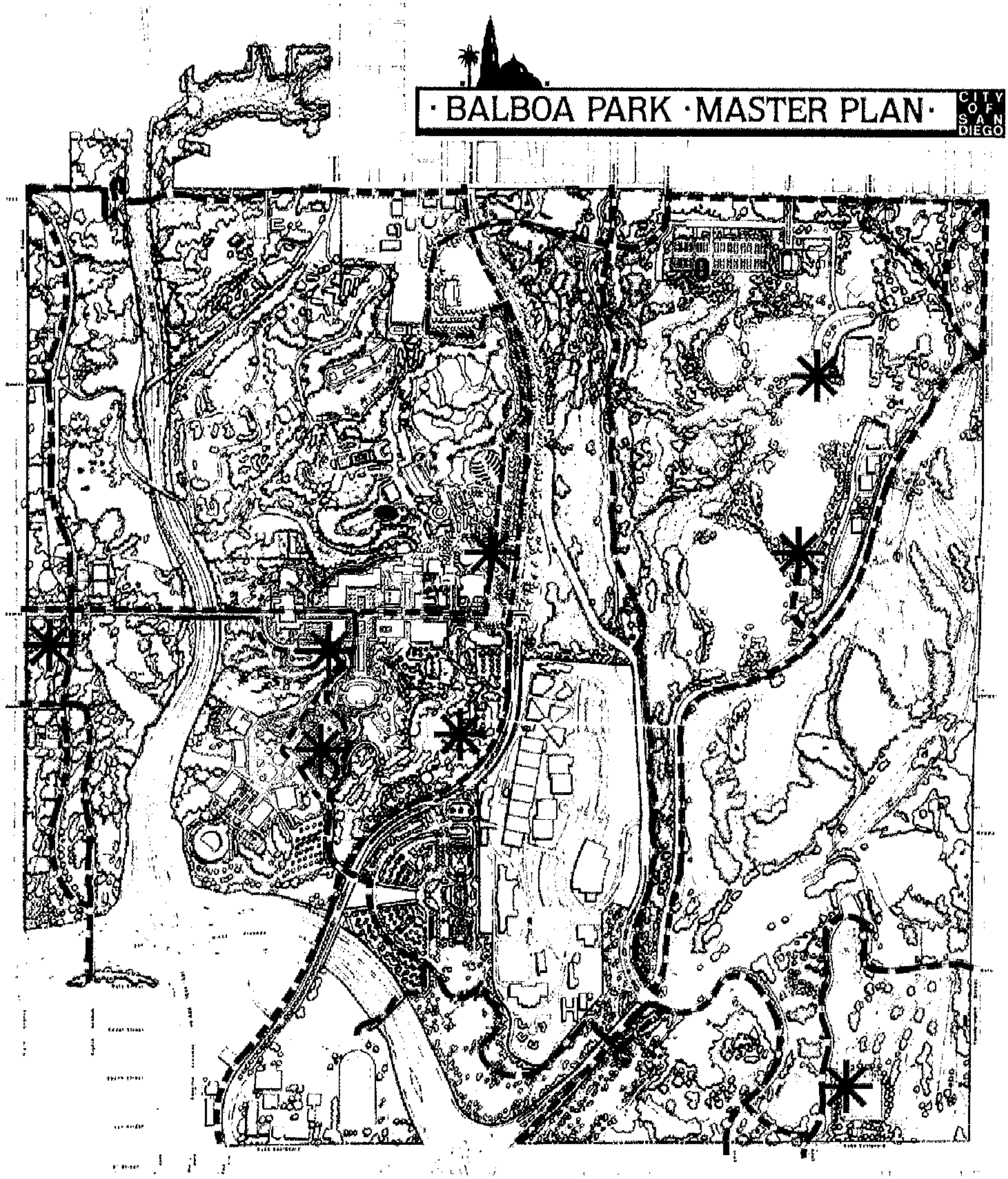
Zack Defazio Farrell
Advocate
RideSD

Mitch Silverstein
Policy Coordinator
Surfrider SD

Chloé Lauer & Manny Rodriguez
Co-Founders
Walk n Roll SD

John Percy
Chair
Bankers Hill
Design
Committee

Bee Miitermiller
Transportation Team
San Diego 350



LEGEND

PROPOSED BICYCLE TRAILS

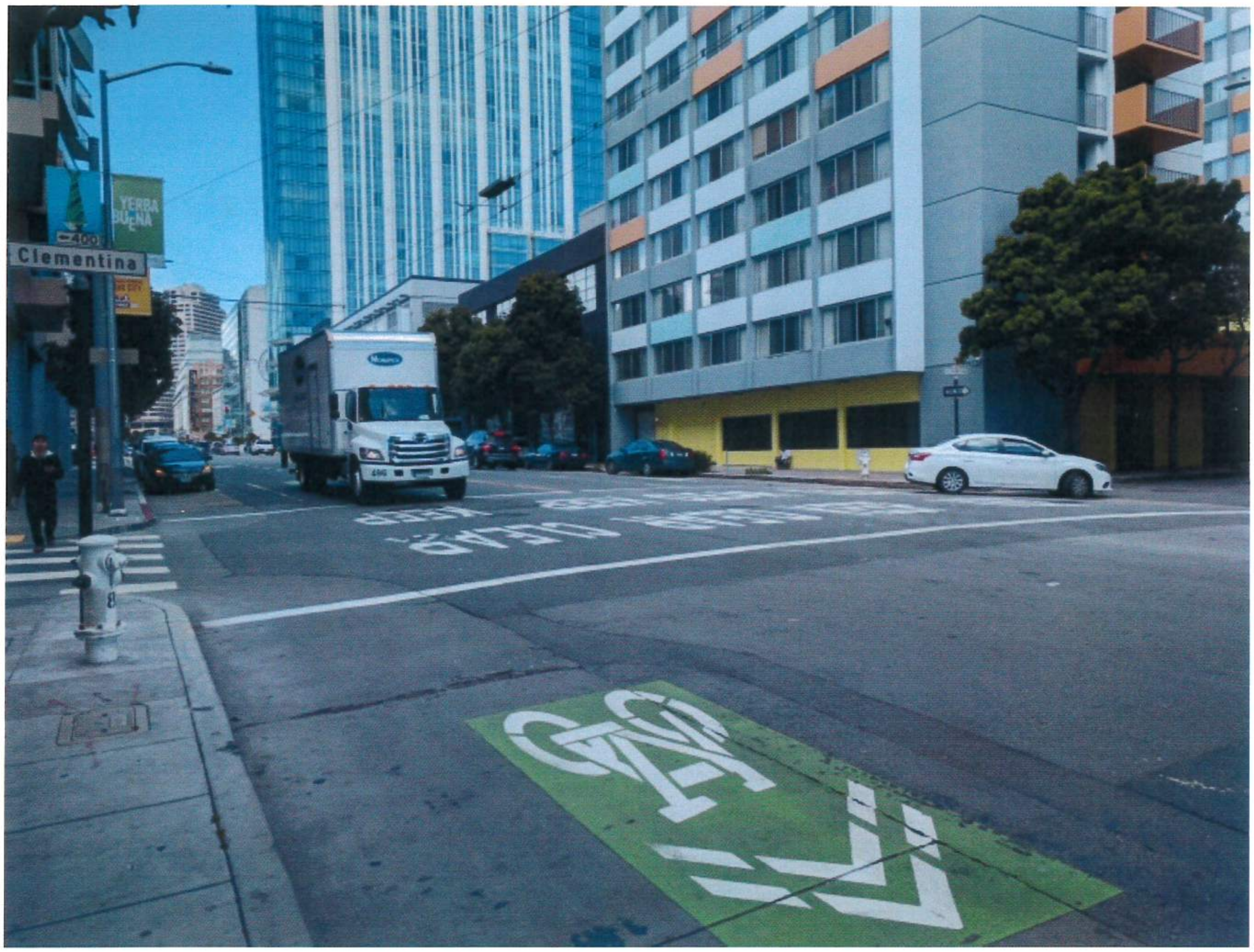
BICYCLE STORAGE LOCKERS

Figure 15

BICYCLE TRAIL SYSTEM

Big Admission: 'I Was Wrong About Sharrows'

By Dave Snyder Jan 24, 2023



Trucks and "sharrows." Photo: Streetsblog/Rudick

Note: GJEL Accident Attorneys regularly sponsors coverage on Streetsblog San Francisco and Streetsblog California. Unless noted in the story, GJEL Accident Attorneys is not consulted for the content or editorial direction of the sponsored content.

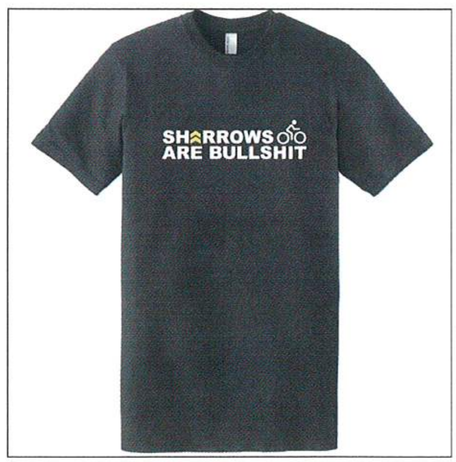
t was the late 1990s and I thought we were so clever. We had just convinced the San l

I I was the young executive director of the San Francisco Bicycle Coalition. We published a hard-hitting newsletter and organized leaders from businesses, churches, community organizations, youth groups, and more into a coalition that was giving unprecedented voice to the demands of San Franciscans for safer streets. Looking to those examples from Chicago, Paris, and Denver, we pushed to get an improved version of the sharrow design formally included in the city's bike plan and approved for use by the state of California. Mayor Willie Brown famously painted the first sharrow on Grove Street outside of City Hall, getting some green paint on his fancy suit and laughing it off in his inimitable style.

San Francisco went on to paint thousands of these symbols all over its bike network, and hundreds of cities followed suit. I thought the sharrow would educate bicyclists to stay out of the "door zone" and usher in a new era of safer streets, one where motorists would patiently wait behind bicyclists "taking the lane" because this painted symbol made it clear they had the right to do so. Where we couldn't get a bike lane, I hoped this symbol would effectively convert the mixed-traffic lane into an adhoc bike lane when bicyclists were present.

I was wrong.

It turns out that motorists really don't like to wait behind someone on a bike, regardless of the paint on the street. Even Oakland's experiment with the so-called "super sharrow," where the bicycle path of travel is painted solid green, isn't enough to get people on bikes to comfortably "take the lane." Sharrow or no sharrow, most people on bikes dangerously hug the edge of the roadway, squeezing themselves into the door zone to avoid blocking car traffic.



But you knew this.

Simply put, sharrows don't do what we hoped they would. Studies back up that claim.

Early research in San Francisco and Florida showed evidence that behaviors changed slightly on streets with sharrows. For example, some bicycle riders positioned themselves a few inches further from the curb or car doors. A 2010 evaluation of shared lane markings in three separate cities again showed that the markings had some positive impact on behavior. Looking closely at the results, however, it was clear the changes were too minor to make a difference. After Oakland's experiment with the super sharrow, the Federal Highway Administration announced it would not support future experiments, and Oakland does not plan to continue the treatment when it repaves the street.

PETER FLAX: WHY SHARROWS ARE BULLSHIT

San Francisco still uses sharrows, but for the most part, city officials know better than to expect them to do much for safety. Today, beautiful sharrows point bicyclists along the circuitous path of the "wiggle," where a right-left-right-left series of turns directs riders on a gentle grade between San Francisco's steep hills. They are great for navigation and, perhaps, concentrating riders on certain streets — that's about it.

It's been more than 20 years since I had high hopes for the sharrow as a tool for safety. Today, we know so much more about what it takes to make our streets safer for bicycling. We need separate bike paths; we need protected bike lanes on busy roads; and where the lanes are shared, we need *actual speeds*reduced to 20 mph or slower. Sharrows don't do any of that.

Even when the shared lane is painted green, cyclists tend to still ride in the "door zone." Photo: PeopleForBikes

Sharrows do, however, accomplish something pernicious which I did not anticipate. They allow officials to take credit for *doing something* for bicycle safety without impacting car traffic, even though that something is next to nothing. It's just pretending, and it's worse than being honest about priorities. It's insulting to the public to encourage bicycling by painting bike symbols on the street but doing nothing to actually make riding a bike any safer.

Yes, good bike infrastructure can require tradeoffs that are more politically challenging than simply painting a symbol on the street. Now, at PeopleForBikes, I'm part of a team that has successfully helped cities build networks of bikeways that actually get more people riding safely and joyfully. We help city leaders with communications, organizing, and political strategies to overcome the challenges they will surely face in building truly effective infrastructure.

We *never* suggest using sharrows to create a bikeway. We've learned our lessons. Now that we know better, it's time to do more.

Dave Snyder, currently the senior director for infrastructure at PeopleForBikes, is the former executive director of the California Bicycle Coalition and was a key player in the proliferation of shared lane markings. Twenty years later, he's disillusioned with them. This story was originally published on the PeopleForBikes website and is reprinted with permission.

Filed Under: Bicycle Infrastructure, Bicycling, Pedestrian Safety, SFMTA, GJEL

MOST RECENT

Larkspur Train/Ferry Connection FAIL

Everything You Ever Wanted to Know About Roadside Noise Cameras

Report: US Pedestrian Death Rate Increased 9x Faster Than Population During COVID

Findings

Anderson, Jason C, Christopher Monsere, and Sirisha Kothuri. 2022. "Effect of Residential Street Speed Limit Reduction on Driving Speeds in Portland, Oregon." *Findings*, January. https://doi.org/10.32866/001c.31956.

TRANSPORT FINDINGS

Effect of Residential Street Speed Limit Reduction on Driving Speeds in Portland, Oregon

Jason C Anderson[1], Christopher Monsere[1], Sirisha Kothuri[1]

[1] Civil and Environmental Engineering, Portland State University

Keywords: speed reduction, driver behavior, regression, logit model, vehicle speeds

https://doi.org/10.32866/001c.31956

Findings

This study analyzed the impacts on motor vehicle observed speeds following a residential speed limit reduction from 40.23 km/hr (25 mi/hr) to 32.19 km/hr (20 mi/hr) in Portland, OR that was accompanied by a public awareness and signage campaign. The study used before and after observations of vehicle speeds collected by pneumatic tube traffic counters. Overall, the analysis suggests that the reduction of posted speed limits to 32.19 km/h (20 mi/h) has resulted in lower observed vehicle speeds and fewer vehicles traveling at higher speeds. The reduction in the percentage of vehicles traveling above 48.28 km/h (30 mi/h) (-1.7%) and 56.33 km/h (35 mi/h) (-0.5%) are larger in magnitude than other speed metrics.

Questions

1. Was there a statistically significant change in mean speed, 85th percentile speed, and proportions of vehicles traveling greater than 40.23 km/hr (25 mi/hr), 48.28 km/hr (30 mi/hr), and 56.33 km/hr (35 mi/hr) after the residential speed limit reduction was implemented and the accompanying public awareness and signage campaign?
2. What is the estimated effect of the speed limit change on observed vehicle speeds?

Methods

The Portland City Council approved an ordinance reducing the speed limit on all residential streets to 32.19 km/hr (20 mi/hr) in January 2018. A residential street is a street that is in a residence district according to Oregon Law ORS 801.430 and has a statutory speed limit. Collector and arterial classifications are not included. The 32.19 km/hr (20 mi/hr) speed limit went into effect on April 1, 2018. The city installed new speed limit signs and updated existing signs over the period of February 2018 to May 2019. The final 32.19 km/hr (20 mi/hr) sign installation increased the number of residential speed limit signs from fewer than 1,000 signs to more than 2,000. An educational and awareness campaign "20 Is Plenty" was also conducted, as well as media campaigns. As part of the effort, nearly 7,000 yard signs were distributed to residents.

Data was collected by the Portland Bureau of Transportation at 58 locations on residential streets using pneumatic tubes placed perpendicular to the direction of traffic flow. Before data was collected between 2013 and 2018, while all after data was collected between February 2019 and July 2019. Both before and after data were collected during weekdays and a few weekends, with the duration varying between 24-97 hours at each location. Recorded speeds of 0 km/hr or greater than 160.93 km/hr (100 mi/hr) were removed from the data prior to analysis for quality control. The excluded data, as a percentage of total observations, was consistent across the two periods (approximately 8%). After cleaning, 131,452 before and 82,768 after observations were available for analysis. All analyses were conducted using the disaggregate, or raw, speed data.

Available controlling factors included time-of-day, day of the week, vehicle classification, and data extracted from Portland's GIS database on physical and operational aspects of the roadway (curb-to-curb pavement width, number of lanes, presence of sidewalks, curb height, presence of parking signs, and pavement condition). A summary of available controlling factors is given in Table 1.

Findings

Descriptive statistics for the pooled data (all sites) and each site were computed to assess changes in common speed measures. Mean speed increased from 34.76 km/hr (21.6 mi/hr) to 34.92 km/hr (21.7 mi/hr) (0.37% increase). This change was statistically significant due to the large sample size but is not a practically significant change. Median speed and 85th percentile speed remained the same. The percentage of vehicles traveling with speeds greater than 40.23 km/hr (25 mi/hr), 48.28 km/hr (30 mi/hr), and 56.33 km/hr (35 mi/hr) all decreased. The percentage of vehicles with speeds greater than:

- 40.23 km/hr (25 mi/hr) decreased by 0.5%
- 48.28 km/hr (30 mi/hr) decreased by 1.7%
- 56.33 km/hr (35 mi/hr) decreased by 0.5%

All differences were statistically significant with 95% confidence.

At the 58 individual sites, changes in speed measures vary by location. As shown in Figure 1, at 33 sites (56.9%) there was a decrease in mean speed, at 43 sites (74.1%) a decrease in median speeds, and at 50 sites (86.2%) a decrease in 85th percentile speed. Decreases were also observed for the percentage of vehicles traveling faster than 40.23 km/hr (25 mi/hr) (74.1%), 48.28 km/hr (30 mi/hr) (69.0%), and 56.33 km/hr (35 mi/hr) (72.4%). Spatial patterns were also investigated, but no apparent spatial patterns among speed changes were present.

Figure 2 shows mean speed changes using a bar plot, sorted by the magnitude of change. Changes in mean speed range from a decrease of 5.63 km/hr (3.5 mi/hr) to an increase of 3.86 km/hr (2.4 mi/hr). The average decrease was 2.25 km/hr (1.4 mi/hr) and the average increase 1.13 km/hr (0.7 mi/hr). Figure 3

Table 1. Summary of Potential Controlling Explanatory Variables

Variable	Frequency	Mean	St. Dev.	Minimum	Maximum
After Speed Reduction Indicator					
1 if after speed reduction, 0 if before	82,768	0.386	0.487	–	–
Speed Bins					
1 if greater than 40.23 km/hr (25 mi/hr), 0 otherwise	51,262	0.239	0.427	–	–
1 if greater than 48.28 km/hr (30 mi/hr), 0 otherwise	12,536	0.059	0.235	–	–
1 if greater than 56.33 km/hr (35 mi/hr), 0 otherwise	1,953	0.009	0.095	–	–
Time-of-Day Indicators					
1 if 6:00 a.m. to 10:00 a.m., 0 otherwise	69,259	0.323	0.468	–	–
1 if 10:00 a.m. to 4:00 p.m., 0 otherwise	47,821	0.223	0.416	–	–
1 if 4:00 p.m. to 8:00 p.m., 0 otherwise	3,752	0.018	0.131	–	–
1 if 8:00 p.m. to 6:00 a.m., 0 otherwise	93,388	0.436	0.496	–	–
Day-of-Week Indicators					
1 if Monday, 0 otherwise	21,219	0.099	0.299	–	–
1 if Tuesday, 0 otherwise	40,592	0.189	0.392	–	–
1 if Wednesday, 0 otherwise	49,528	0.231	0.422	–	–
1 if Thursday, 0 otherwise	57,468	0.268	0.443	–	–
1 if Friday, 0 otherwise	29,524	0.138	0.345	–	–
1 if Weekend, 0 otherwise	15,889	0.074	0.262	–	–
Vehicle Classification Indicators					
1 if motorcycle/bike, 0 otherwise	7,362	0.034	0.182	–	–
1 if passenger vehicle, 0 otherwise	166,130	0.776	0.417	–	–
1 if 2-axle long, 0 otherwise	29,655	0.138	0.345	–	–
1 if bus, 0 otherwise	6,737	0.031	0.175	–	–
Roadway Characteristics					
Surface width (m)	214,220	9.370	1.205	5.486	12.192
Pavement condition index	214,220	58.189	14.794	13	100
Curb height (cm)	214,220	10.391	4.039	0	17.780
Adjacent Signage					
1 if no parking sign, 0 otherwise	44,231	0.206	0.405	–	–
1 if stop sign, 0 otherwise	71,523	0.334	0.472	–	–
Pavement Type					
1 if composite pavement, 0 otherwise	13,867	0.065	0.246	–	–
1 if flexible pavement, 0 otherwise	182,398	0.851	0.356	–	–
1 if OILM[a] pavement, 0 otherwise	9,390	0.044	0.205	–	–
1 if rigid pavement, 0 otherwise	8,565	0.040	0.196	–	–

[a] OILM defined as Oil-Macadam Pavement Streets

shows the change in percentage of vehicles traveling faster than 48.28 km/hr (30 mi/hr). These changes range from a decrease of 29.5% to an increase of 4.4%. The average decrease was 3.8% and the average increase 0.8%.

A series of statistical models were developed to determine the effects of the speed limit reduction while controlling for other available factors. An indicator variable (1 if after reduction, 0 if before) was created to estimate the effects of the reduction.

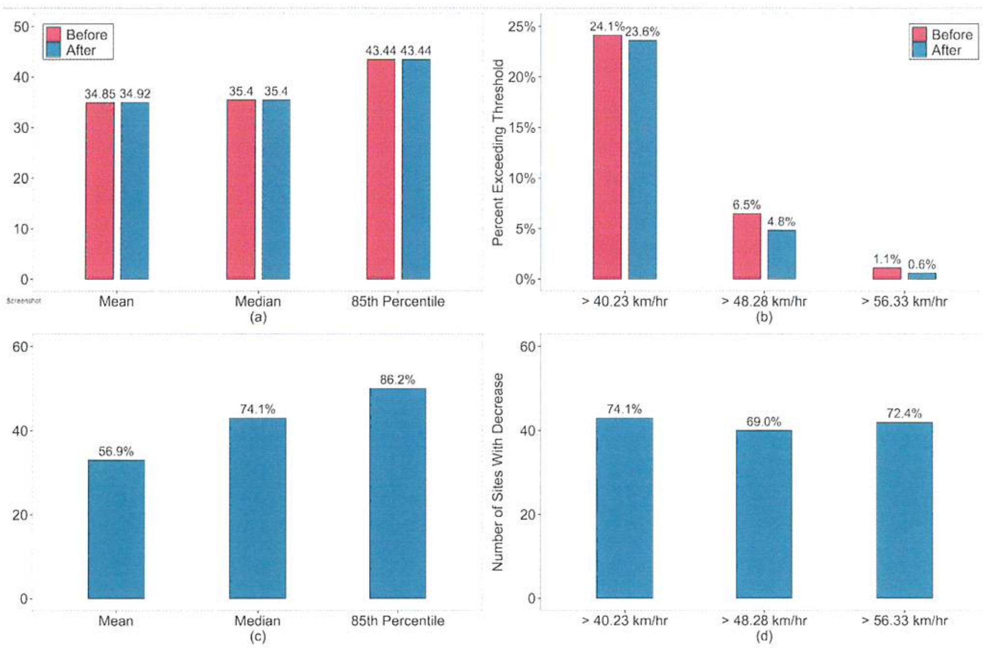


Figure 1. (a) Difference in mean, median, and 85th percentile speed, (b) Difference in speeds of greater than 40.23 km/hr (25 mi/hr), 48.28 km/hr (30 mi/hr), and 56.33 km/hr (35 mi/hr), (c) Number of sites with decrease in mean, median, and 85th percentile speed, and (d) Number of sites with decrease in speeds of greater than 40.23 km/hr (25 mi/hr), 40.28 km/hr (30 mi/hr), and 56.33 km/hr (35 mi/hr)

Final model specifications for the log-linear regression model are shown in Table 2. The estimate for the after-reduction indicator indicates an expected decrease in observed speed of approximately 1.0%, on average. The parameter is significant with well over 99% confidence. This expected decrease is about 3-times greater than the 0.30% observed by Hu and Cicchino (2020) in a similar study.

Model results align with expectations regarding vehicle speeds. Street width is associated with higher speed (Fitzpatrick et al. 2001). Curb height is likely associated with on-street parking and contributes to narrow available travel way (decrease in speed). Pavement quality and ride are likely to be related to vehicle speed, but the literature is sparse. Previous studies have also found that speeds were less on weekends (Bornioli et al. 2018; Giles 2004).

Binary logit model specifications for the three speed thresholds are shown in Table 3. Parameter estimates, in absolute value, increase as the speed thresholds increase. For the after reduction indicator, the change in odds increases in magnitude as the speed threshold increases. The parameter estimate for after the speed limit reduction suggests a 15.9% reduction in odds of observing speeds greater than 40.23 km/hr (25 mi/hr), a 33.6% reduction in odds of observing speeds greater than 48.28 km/hr (30 mi/hr), and a 49.6% reduction in odds of observing speeds greater than 56.33 km/hr (35 mi/hr). These results confirm the inference from the descriptive analysis; specifically, the percentage of vehicles traveling in the higher speed bins decreased after the reduction.

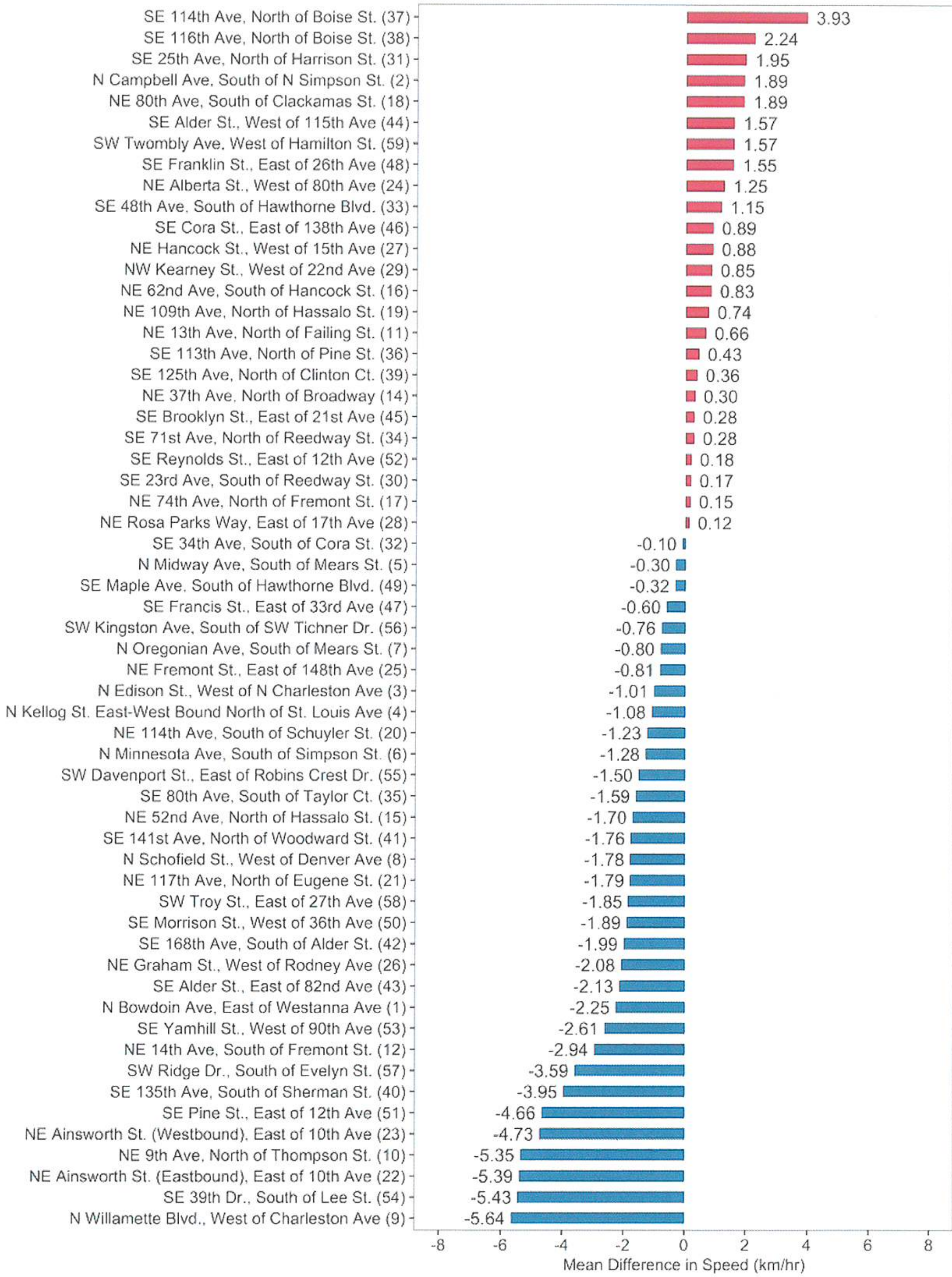


Figure 2. Change in Mean Speeds (km/hr) by Site

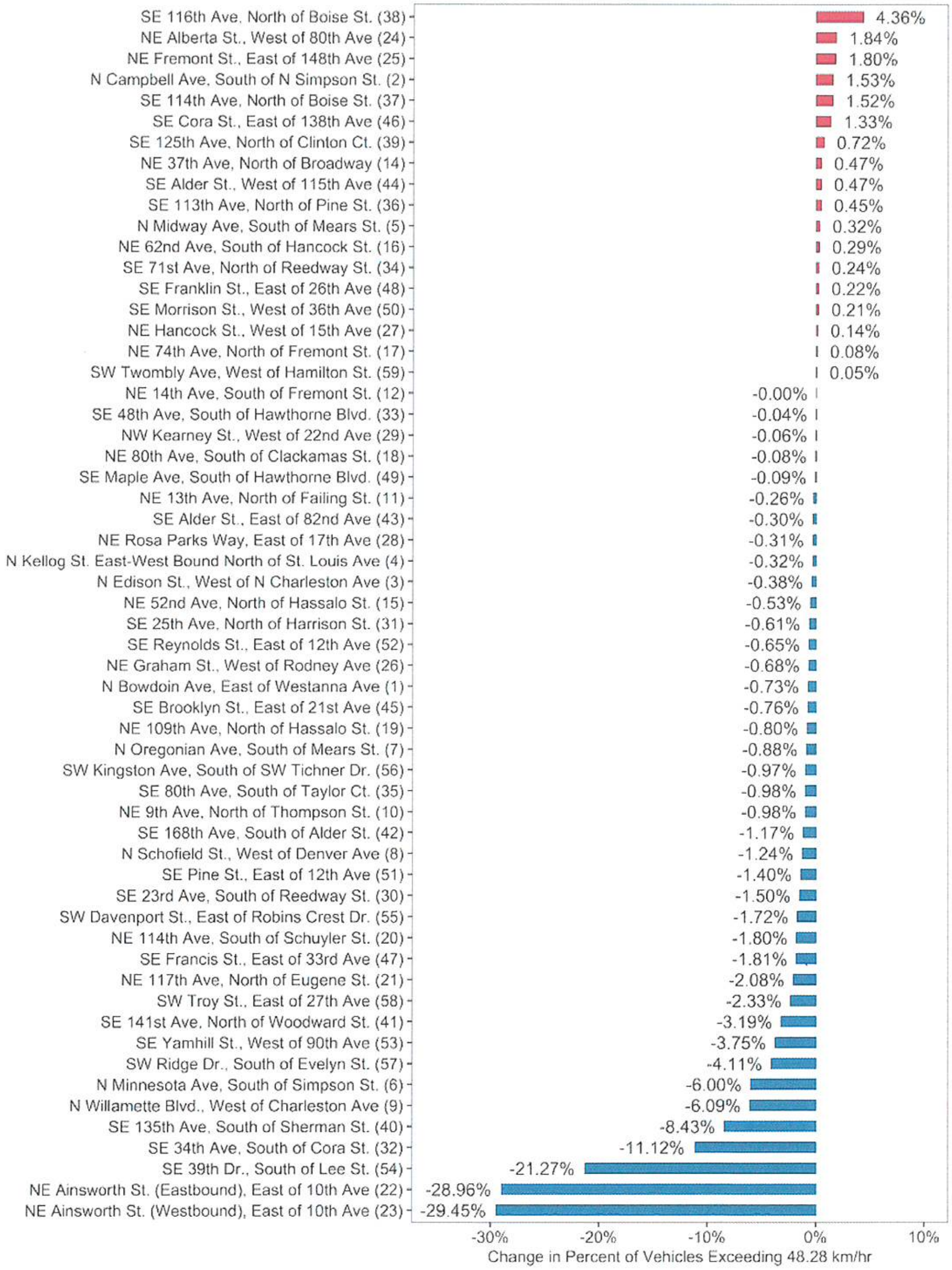


Figure 3. Change in Percent of Vehicles With Speed Greater Than 48.28 km/hr (30 mi/hr) by Site

Table 2. Log-Linear Regression Model Specifications for Observed Speed

Variable	Coefficient	Std. Error	*p*-value
Constant	2.341	0.020	<0.0001
Before/After Period			
1 if after speed reduction, 0 if before	-0.010	0.001	<0.0001
Time-of-Day			
1 if 6:00 a.m. to 10:00 a.m., 0 otherwise	-0.007	0.001	<0.0001
1 if 4:00 p.m. to 8:00 p.m., 0 otherwise	0.028	0.005	<0.0001
Day-of-Week			
1 if Wednesday, 0 otherwise	0.056	0.002	<0.0001
1 if Thursday, 0 otherwise	0.025	0.002	<0.0001
1 if Friday, 0 otherwise	0.016	0.002	<0.0001
1 if Weekend, 0 otherwise	-0.081	0.003	<0.0001
Roadway Characteristics			
Natural logarithm of surface width	0.088	0.005	<0.0001
Natural logarithm of pavement condition index	0.107	0.002	<0.0001
Curb height	-0.011	0.000	<0.0001

Table 3. Binary Logit Model Specifications of Speeds Greater Than 40.23 km/hr, 48.28 km/hr, and 56.33 km/hr

Variable	Greater Than 40.23 km/hr				Greater Than 48.28 km/hr				Greater Than 56.33 km/hr			
	Coefficient	Std. Error	*p*-value	OR[a]	Coefficient	Std. Error	*p*-value	OR[a]	Coefficient	Std. Error	*p*-value	OR[a]
Constant	-5.256	0.167	<0.0001		-9.728	0.329	<0.0001		-12.289	0.829	<0.0001	
Before/After Period												
1 if after speed reduction, 0 before	-0.173	0.011	<0.0001	0.841	-0.409	0.020	<0.0001	0.664	-0.686	0.054	<0.0001	0.504
Time-of-Day												
1 if 6:00 a.m. to 10:00 a.m., 0 otherwise	-0.090	0.011	<0.0001	0.914	-0.204	0.021	<0.0001	0.816	-0.373	0.056	<0.0001	0.688
1 if 4:00 p.m. to 8:00 p.m., 0 otherwise	0.181	0.037	<0.0001	1.199	0.318	0.059	<0.0001	1.374	0.796	0.110	<0.0001	2.217
Day-of-Week												
1 if Wednesday, 0 otherwise	0.543	0.014	<0.0001	1.721	0.810	0.030	<0.0001	2.247	0.784	0.082	<0.0001	2.191
1 if Thursday, 0 otherwise	0.433	0.014	<0.0001	1.542	0.938	0.028	<0.0001	2.555	1.094	0.075	<0.0001	2.985
1 if Friday, 0 otherwise	0.373	0.017	<0.0001	1.452	1.182	0.031	<0.0001	3.261	1.419	0.077	<0.0001	4.132
1 if Weekend, 0 otherwise	-0.757	0.028	<0.0001	0.469	-0.985	0.070	<0.0001	0.374	-1.177	0.197	<0.0001	0.308
Roadway Characteristics												
Natural logarithm of surface width	0.348	0.041	<0.0001	1.417	0.408	0.077	<0.0001	1.504	0.162	0.189	0.390	1.176
Natural logarithm of PCI[b]	0.734	0.018	<0.0001	2.084	1.268	0.040	<0.0001	3.554	1.568	0.108	<0.0001	4.797
Curb height	-0.057	0.003	<0.0001	0.945	-0.015	0.006	0.011	0.985	0.040	0.015	0.009	1.040

[a] estimated odds ratio

[b] pavement condition index

[*] 40.23 km/hr = 25 mi/hr; 48.28 km/hr = 30 mi/hr; 56.33 km/hr = 35 mi/hr

Acknowledgments

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