LETTERS

CYCLE TRACK SAFETY REMAINS UNPROVEN

Lusk et al. claim that American Association of State Highway and Transportation Officials (AASHTO) guidelines discourage "physically separated and bicycle-exclusive paths adjacent to sidewalks."[1] In fact, these guidelines prohibit bicycle lanes on the roadway separated from travel lanes by parked cars or a raised barrier. They permit bike paths adjacent to the roadway where there is "minimal cross flow by motor vehicles."[2]

The facilities in the authors' sample that clearly contradict these AASHTO guidelines are First Avenue North in Minneapolis, Minnesota, and First, Second, Eighth, and Ninth Avenues in New York City. Using the authors' figures, the bicycle crash rate for these facilities averages 7.0 per 10^6 kilometers traveled compared with only 0.6 per 10^6 kilometers for the remainder of the authors' sample. An explanation for the difference is that the former group averages 11.3 intersections per kilometer whereas the latter averages only 1.7 (Table 1).

Lusk et al. claim that the crash rate for their sample "is low relative to reported crash rates on roadways in the United States and Canada." However, 3 of the 4 comparison rates they cite are based on self-reports of all collisions for specific populations (bicycle messengers in Boston, MA; bicycle commuters in Toronto or Ottawa), and not on police reports of car–bicycle collisions for all bicyclists—which makes them completely inappropriate to use as a benchmark.[3–5] The 2009 National Household Transportation Survey estimates 14.413 10^6 annual kilometers of bicycle travel in the United States.[6] Dividing by the 51 000 estimated police-reported bicyclist injuries in 2009 provides a national rate of 3.5 bicycle crashes per 10^6 kilometers.[7] The facilities that are expressly prohibited by the AASHTO guidelines have a crash rate that is on average twice as high as the national average. It is premature to say this work provides additional evidence that urban cycle tracks increase bicyclist injuries attributable to intersection risk[8–10] because the authors' method does not account for confounders such as traffic speed and volume. But it is safe to conclude that this article has produced no evidence to support its claim that "bicycling on cycle tracks is safer than bicycling on roads." ■

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References

1. Lusk AC, Morency P, Miranda-Moreno LF, Willett WC, Dennerlein JT. Bicycle guidelines and crash rates on cycle tracks in the United States. *Am J Public Health.* 2013;103(7):1240–1248. doi:

2. *Guide for the Development of Bicycle Facilities.* Washington, DC: American Association of State Highway and Transportation Officials; 1999.

3. Dennerlein J, Meeker J. Injuries among Boston bicycle messengers. *Am J Ind Med.* 2002;42(6):519–525.

4. Aultman-Hall L, Hall FL. Ottawa-Carleton commuter cyclist on- and off-road incident rates. *Accid Anal Prev.* 1998;30(1):29–43.

5. Aultman-Hall L, Kaltenecker MG. Toronto bicycle commuter safety rates. *Accid Anal Prev.* 1999;31(6):675–686.

6. Federal Highway Administration. National Household Travel Survey 2009. NHTS table designer. US Department of Transportation. Available at: http://nhts.ornl.gov/tools.shtml. Accessed May 23, 2013.

7. National Highway Traffic Safety Administration. Traffic safety facts 2009. Available at: http://www-nrd.nhtsa.dot.gov/Pubs/811402.pdf Accessed May 23, 2013.

8. Agerholm N, Caspersen S, Lahrmann H. Traffic safety on bicycle paths—results from a new large scale Danish study. 2008. Available at: http://vbn.aau.dk/files/14344951/agerholm_et_al._bicycle_paths.pdf. Accessed May 23, 2013.

9. Jensen SU. Bicycle tracks and lanes: a before and after study. Trafitec ApS. 2007. Available at: http://trafitec.dk/sites/default/files/publications/bicycle%20tracks%20and%20lanes.pdf. Accessed May 23, 2013.

10. Gårder P, Leden L, Thedéen T. Safety implications of bicycle paths at signalized intersections. *Accid Anal Prev.* 1994;26(4):429–439.

TABLE 1—Vehicle–Bicycle Crash Rates on Cycle Tracks: United States, 2002–2011

	Length,[a] km	Crash Report Period,[b] Year	Crashes,[c] No.	Average Daily Bicycle Count,[d] No.	Bicycle km/Year[e]	Exposure,[f] No.	Crashes/Million km	Intersections	
								No.	No./km
Side paths on city streets									
First Avenue North, Minneapolis, MN	0.76	1.8	4	330	91 542	164 776	24.3	6	7.9
First Avenue, New York City (First to 34th)	2.65	0.3	3	1854	1 793 282	537 984	5.6	31	11.7
Second Avenue, New York City (34th to first)	2.60	0.5	5	1620	1 537 380	768 690	6.5	30	11.5
Eighth Avenue, New York City (West 14th to West 34th)	1.57	2.3	20	2085	1 194 809	2 748 061	7.6	19	12.1
Ninth Avenue, New York City (14th-33rd)	1.57	2.4	13	1576	903 127	2 167 504	6.0	17	10.8
Total	9.26	7.3	45	. . .	. . .	6 411 298	7.0	103	11.3
Side Paths with minimal cross flow[g]									
Calle Barcelona, Carlsbad, CA	2.11	3.6	0	25	19 254	69 314	0	5	2.4
East Palomar Street, Chula Vista, CA	3.28	8.6	1	201	240 637	2 069 480	0.5	4	1.2
Friars Road, San Diego, CA	3.46	3.6	1	280	353 612	1 273 003	0.8	1	0.3
Beach Street, Santa Cruz, CA	1.22	1.0	1	695	309 484	309 484	3.2	0	0.0
High Street, Santa Cruz, CA	0.16	2.0	0	196	11 446	22 893	0	1	6.3
13th Street, Boulder, CO	0.34	3.5	0	1157	143 584	502 543	0	0	0.0
Broadway, Boulder, CO	4.83	3.5	2	1712	3 018 170	10 563 596	0.2	13	2.7
Apopka Vineland Road, Orlando, FL	1.93	4.0	0	21	14 793	59 174	0	5	2.6
Vassar Street, Cambridge, MA	0.32	5.0	1	564	65 875	329 376	3.0	0	0.0
Loring Bikeway, Minneapolis, MN	1.13	4.0	4	814	335 734	1 342 937	3.0	3	2.7
Prospect Park West (Bartel Pritchard Square to Union Street), Brooklyn, NY	1.51	0.8	0	1654	911 602	729 282	0	2	1.3
Ayers Road, Eugene, OR	0.80	5.0	0	144	42 048	210 240	0	3	3.8
Reed Market Road, Bend, OR	1.19	4.0	0	109	47 344	189 377	0	0	0.0
Dorset Street, Burlington, VT	1.85	1.0	0	36	24 309	24 309	0	4	2.2
Total	24.13	49.6	10	. . .	. . .	17 695 007	0.6	34	1.7

Note. Totals may be rounded.
[a]Length of cycle track per Lusk et al., except the measure for First Avenue North, Minneapolis, MN was calculated based on the distance between 8th Street and N. Washington Avenue).
[b]Time period during which crash data were available.[1]
[c]Police- or community-reported crashes during the reporting period.[1]
[d]Based on bicycle counts (adjusted, via expansion factors, for time of day, day of week, and month) and duration of counting period.[1]
[e]Length of cycle track multiplied by average daily bike count multiplied by 365.
[f]Bicycle km/year multiplied by crash reporting period.
[g]These paths are located in suburban areas with few intersections, or are adjacent to a park, campus, or beach, or are only 1 block long.