Breaking the Cycle: The Necessity of Designated Bicycle Lanes By Darin Gulibon

Before my senior year of high school, I obtained my first part-time job at my local supermarket. As I did not own a car, my most convenient method of transportation was to ride my bicycle to work; however, the only path available was the exposed shoulder of a busy roadway. As cars whizzed by within inches of my tires, I rode with the fear that my life could be ended by even a split-second jerk of a steering wheel. Over 130,000 Americans are injured or killed in bicycle accidents on roads each year¹, including my Uncle Rohan, who suffered severe brain damage and near-paralysis when his bicycle collided with a swerving truck. In order to better protect a growing population of bicycle commuters from the same fate, the construction of protected bike lanes represents an essential measure in providing a safeguard against traffic-related bicycle accidents.

In 2019, approximately 870,000 Americans commuted to work by bicycle, a figure that appears set to rise over the coming years². During a period of economic recession from 2001 to 2009, the number of bicycle trips taken by 16-to-34-year-old Americans increased by twenty-four percent³. With the cost of automobiles and fuel skyrocketing, a similar increase in bicycle transport is expected among the expanding young working class, and a safer infrastructure with designated and protected lanes is required to handle the uptick in cyclists.

Each year, the United States Federal Highway Administration (FHA) drafts an updated series of guidelines for the construction of specialized bike lanes. The latest laws require each

¹ "Traffic Safety Facts". NHTSA, CDC, https://www.cdc.gov/transportationsafety/bicycle/index.html.

² Burrows, Michael. "Who Bikes to Work?". United States Census Bureau,

https://www.census.gov/library/stories/2019/05/younger-workers-in-cities-more-likely-to-bike-to-work.html

³ Davis, Benjamin. "Transportation and the New Generation". PIRG Education Fund,

https://pirg.org/wp-content/uploads/2012/04/Transportation-the-New-Generation-vUS 0.pdf

lane to possess a five-to-seven foot width with distinct markings indicating the traffic direction⁴. Recommended protections include a buffer of three feet that includes a physical barrier, such as an elevated post or curb, that prevents motor vehicles from crossing over into the lane⁵. Bike lanes with these parameters offer riders greater separation from motor traffic in addition to precious time to react to instantaneous hazards.

Recent studies reveal that cities who invested in FHA-regulated bike lanes significantly reduced their number of bicycle accidents in turn. Seattle has become one of the largest proponents of protected bike lanes, spending as much as \$2 million per mile on construction and recently securing a grant of \$25.6 million for improvements. From 1990 to 2010, their investments resulted in a sixty percent decrease in total bicycle crashes⁶. According to a University of Colorado-Denver study, other cities such as Portland, Denver, and Chicago saw their traffic-related bicycle crashes decrease by an average of fifty-one percent from 1997 to 2012 via improvements to barriers surrounding their existing bicycle paths⁷.

In the modern era, no citizen should have to risk their life just to earn a living. As bicycle traffic increases due to socioeconomic factors, leaders of American cities face an obligation to protect their riders from dangerous motor vehicle collisions. Investing in protected bike lanes is a proven strategy that provides those without access to a motor vehicle a greater opportunity to enjoy a safer commute.

⁴ "Bicycle Lanes". USDOT Federal Highway Administration,

https://safety.fhwa.dot.gov/provencountermeasures/bike-lanes.cfm#psc-footnote.

⁵ "Urban Bikeway Design Guide". NACTO, https://nacto.org/publication/urban-bikeway-design-guide/.

⁶ Kroman, David. "Feds will give Seattle \$25.6 Million...". Seattle Times,

https://www.seattletimes.com/seattle-news/transportation/feds-will-give-seattle-25-6-million-to-help-fund-sodo-safet y-improvements/.

⁷ Marshall, Wesley. "Cycling Lanes Reduce Fatalities for All Road Users". ScienceDaily, https://www.sciencedaily.com/releases/2019/05/190529113036.htm.