

Date of Hearing: April 22, 2024

ASSEMBLY COMMITTEE ON TRANSPORTATION

Lori D. Wilson, Chair

AB 2234 (Boerner) – As Amended April 17, 2024

SUBJECT: Vehicles: electric bicycles

SUMMARY: Authorizes the County of San Diego, or any city within the county of San Diego, to prohibit individuals under the age of 12 from riding a class 1 or 2 electric bicycle (e-bike) until January 1, 2029. Specifically, **this bill:**

- 1) Provides that the punishment for an individual under 12 riding a class 1 or 2 e-bike is \$25 (base fine and \$197 with additional fees), or the completion of an e-bike safety course.
- 2) Requires a report to be submitted to the Legislature by January 1, 2028 with the following information:
 - a) The total number of traffic stops initiated for violations;
 - b) The results of the traffic stops, including whether a warning or citation was issued, property was seized, or an arrest was made;
 - c) The number of times a person was stopped for allegedly operating a class 1 or 2 e-bike while under 12, but was found to be over the age limit;
 - d) If a warning or citation was issued, a description of the warning or violation cited;
 - e) If an arrest was made, the offense cited by the officer for the arrest and the perceived race or ethnicity, gender, and approximate age of the person stopped, provided that the identification of these characteristics is solely based on the observation and perception of the peace officer who initiated the traffic stop;
 - f) The actions taken by a peace officer during the traffic stops, including, but not limited to, all of the following:
 - i) Whether the peace officer asked for consent to search the person, and, if so, whether consent was provided.
 - ii) Whether the peace officer searched the person or any property, and, if so, the basis of the search and the type of contraband or evidence discovered.
 - iii) Whether the peace officer seized any property, and, if so, the type of property that was seized and the basis for seizing the property.
 - g) The number of times a person opted to complete, and did complete, the training course in lieu of paying the fine;
 - h) The number of times that a person under 12 years of age was operating an e-bike and was involved in a crash that resulted in permanent, serious injury or of a fatality in the six months prior to adoption of the ordinance or resolution, the case of the crash, and the class of the e-bike that was being operated at the time of the crash; and,
 - i) The number of times that a person under 12 years of age was operating an electric bicycle and was involved in a crash that resulted in a permanent, serious injury or a fatality after the adoption of the ordinance, the cause of the crash, and the class of the e-bike that was being operated at the time of the crash.

- 3) Requires a local authority, or the County of San Diego, to administer a public information campaign for at least 30 calendar days prior to the enactment of an ordinance.
- 4) Provides that only warning notices shall be issued for the first 60 days after the passage of an ordinance or resolution.
- 5) Provides that this bill shall become inoperative on January 1, 2029 and as of that date is repealed.

EXISTING LAW:

- 1) Defines an e-bike as a bicycle with fully operable pedals and an electric motor of less than 750 watts. Creates three classifications of e-bikes based on the ability for motors to achieve high speeds and replace pedaling. Class 1 and 2 e-bikes have a maximum pedal assist speed of 20 miles per hour (mph), while Class 2 e-bikes can have throttle assistance up to 20 mph. Class 3 e-bikes have a maximum pedal assist of 28 mph. (Vehicle Code Section (VEH) 312.5)
- 2) Requires riders of Class 3 e-bikes to be 16 years of age or older and requires riders to wear a helmet regardless of age. Requires Class 3 e-bikes to be equipped with a speedometer. (VEH 34016 and 312.5)
- 3) Specifies that a person operating an e-bike is not subject to the provisions of the vehicle code related to financial responsibility, driver's licenses, registration, and license plate requirements, and that e-bikes are not a motor vehicle. (VEH 34016)
- 4) Prohibits a person from changing the speed capability of the e-bike. (VEH 34016)
- 5) Defines "bicycle" to include e-bikes. (VEH 231)
- 6) Permits a transit development board, or a public agency, including the Regents of the University of California and the Trustees of the California State University, to adopt rules or regulations to restrict the use of e-bikes. (VEH 21113)
- 7) Authorizes local authorities, by ordinance, from regulating the parking and operation of bicycles on pedestrian or bicycle facilities, provided such regulations are not in conflict with the provisions of the vehicle code. (VEH 21206)
- 8) Requires an operator of a bicycle to obey all the provisions of traffic control devices that are applicable to the driver of a vehicle, except starting in 2024 may proceed through an intersection when the "walk" sign is on or if there is an official traffic control device signal for bicycles. (VEH 21456.2)
- 9) Provides that all of the rules of the road apply to bicycles, except those provisions which by their very nature cannot apply to a bicycle. (VEH 21200)

FISCAL EFFECT: Unknown

COMMENTS: In California, the transportation sector is the largest contributor of greenhouse gas (GHG) emissions and is responsible for about 40% of the state's emissions with light-duty passenger vehicles being the single largest contributor. The Legislature has set several goals to reduce GHG emissions and address climate change. The Global Warming Solutions Act of 2006 [AB 32 (Nunez), Chapter 488, Statutes of 2006] and subsequent companion legislation SB 32 (Pavley), Chapter 249, Statutes of 2016, requires California to reduce statewide GHG emissions to 40% below the 1990 level by 2030.

Reducing the number of miles that people drive every day can have a significant impact on reducing GHG emissions. Providing alternative modes of transportation such as public transportation using buses and light rail or other shared ride approaches could significantly reduce the number of vehicle miles traveled (VMT) in California. California has targeted a 15% reduction in VMT by 2050 as part of its larger strategy to reduce GHG emissions by 80% from 1990 levels by 2050.

E-bikes are an increasingly popular option to reduce personal car trips. According to the US Bureau of Transportation statistics, more than half of all trips in the US are under three miles. According to the University of Oxford study, *The Climate Change Mitigation Effects of Daily Active Travel in Cities*, choosing to use a bike just once a day can slash an individual's transportation emissions by 67%.

E-bikes are outselling electric cars. According to Kelly Blue Book, 800,000 electric cars were purchased in the United States in 2022. E-bike imports, meanwhile, were 1.1 million.

As e-bike popularity has gone up, so have injuries. The Los Angeles Times reported in January of 2023 that during the first 10 months of 2022, staffers at Providence Mission Hospital in Mission Viejo documented 198 e-bike injuries, up from just 34 in 2020.

In New York City in 2023 cyclist deaths were at an all-time high. According to the New York City Department of Transportation, 30 individuals were killed on a bicycle in 2023, 23 of whom were on e-bikes. Despite the uptick in fatalities, the rate of cyclist fatalities and serious injuries has been trending downward, and cycling in the city has become safer. The rate of deaths and severe injuries was about 16 per 10 million bike rides, down from 34 per 10 million a decade ago.

The data from New York City is in line with other research that has shown that one of the best ways to increase safety for cyclists is to increase the number of cyclists on the road. According to *Safety-in-Numbers: A Systematic Review and Meta-Analysis of Evidence*, a systemic review of studies has found that the crash rate for cyclists goes down as the number of cyclists goes up. This has often been attributed to cars becoming more aware of cyclist on the roads and changing their behavior accordingly.

The National Institutes of Health published *Electric Bicycles Are an Increasingly Common Pediatric Public Health Problem* in 2023. This research paper highlights the increased level of injuries associated with riding an e-bike. The research paper looked at national data for both bicycle and e-bike users between 2011 and 2020. During that period, there were 3,945 e-bike-related injuries for children between the ages of two and 18 years old compared to 2 million

conventional bicycle injuries during the same period. The severity of e-bike injuries decreased over time. From 2011-2015 vs 2016-2020, there was an observed decrease in severe injuries involving a hospital stay from 18.3% to 12.2%, while there was an increase in severe injuries for conventional bicycles from 5.1% to 5.7%. There were 2.4 times greater odds of severe injury for e-bikes compared to pedal bicycles. Internal injuries were more common among injuries due to e-bikes (14.6 %), compared to bicycles (8.5 %).

Streets for All, writing in opposition to this bill, “Placing restrictions on e-bikes implies that the presence of e-bikes is the root cause of any safety concerns or conflicts with other road users. However, the real issue often lies in a lack of designated bike lanes, unclear regulations, or inadequate infrastructure to accommodate various types of cyclists. By focusing on e-bikes as the problem, we overlook the broader traffic safety issues. This approach fails to address the underlying problem of insufficient infrastructure designed to safely accommodate all cyclists, including e-bike riders. Investing in well-designed bike lanes, bike-friendly intersections, and clear signage can create a safer environment for cyclists of all abilities and bike types. Imposing restrictions on e-bikes is a superficial solution that fails to address the root cause of safety concerns and conflicts with other road users: the lack of safe cycling infrastructure.”

The Consumer Product Safety Commission recommends children under the age of 12 should not ride a vehicle with a motor capable of going faster than 10 mph.

Committee Comments: There is an inherent risk in riding bicycles, electric or conventional, and an inherent risk in driving a car. According to the California Office of Traffic Safety (OTS) in San Diego County, there were a total of 18,159 serious injuries and fatalities in 2021, 768 of which involved a bicycle. Overall, children make up a small portion of the bicycle fatalities in California. Of the 194 cyclists killed in 2022, only four were under the age of 16.

Cars are a leading cause of death of children in the United States. According to the National Highway Traffic Safety Administration (NHTSA) of the 42,939 traffic fatalities in the United States, 1,181 were children 14 years and younger, an 8% increase from the year before. 863 of the 1,181 deaths involved children who were passengers in cars.

E-bikes provide an environmentally friendly, safe, and healthy alternative to cars. Because they lack a requirement for a license, they also provide a unique opportunity for those under 16 to be able to travel to and from school without the aid of their parents. While the risks for riding an e-bike at least preliminarily seem higher than the risks for riding a conventional bicycle, it is unclear if that risk is exponential to the point of prohibiting individuals under 16 years old from riding them.

The consequences for a child riding an e-bike under this bill could result in a nearly \$200 ticket. If the child fails to appear in court for the violation, they would be guilty of a misdemeanor with an additional \$300 civil assessment.

One of the best ways to reduce injuries and fatalities for cyclists is to build protected bike lanes. According to the Federal Highway Administration, converting traditional or flush buffered bicycle lanes to a separated bicycle lane with flexible delineator posts can reduce crashes by up to 53%.

This bill may be premature. Last year the Legislature passed SB 381 (Min), Chapter 869, Statutes of 2023 which requires the Mineta Transportation Institute at San Jose State University, in consultation with relevant stakeholders, to conduct a study on e-bicycles and the safety of riders and pedestrians by January 1, 2026. The Legislature may want to consider waiting for the Mineta Institute report to come back before passing legislation restricting the use of e-bikes.

REGISTERED SUPPORT / OPPOSITION:**Support**

American Academy of Pediatrics, California
City of Coronado
City of Irvine
City of Laguna Beach
League of California Cities

Opposition

Ebikeaccess.org
Streets for All

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