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Micromobility Vehicles in Palm Beach County:

Five Years of Crash Data

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Why?

This report aims to improve micromobility safety in Palm Beach County by examining recent crash trends, identifying gaps in current data collection practices, and highlighting the role of accurate reporting in preventing injuries and saving lives.

INTRODUCTION

What Are Micromobility Vehicles?

Electric bicycles (e-bikes) and electric scooters (e-scooters) have rapidly increased in popularity in recent years. Many people, however, are unaware that these devices fall under the broader category of micromobility vehicles. Micromobility vehicles are lightweight, low-speed transportation options designed primarily for short-distance urban travel.

Common forms of micromobility include electric bikes (e-bikes), electric scooters (e-scooters), electric motorcycles (e-motos), segways, electric unicycles, and hoverboards. Among these, e-bikes and e-scooters are the most widely used. E-scooters are stand-up platforms equipped with handlebars and electric motors, while e-bikes resemble traditional bicycles but can reach speeds of approximately 20–28 miles per hour, depending on their classification.

The Palm Beach County Engineering and Public Works Department identifies three classes of e-bikes. Class 1 e-bikes provide pedal-assist only, with motor assistance ceasing at 20 mph. Class 2 e-bikes include throttle control and can reach speeds of up to 20 mph without pedaling. Class 3 e-bikes, known as “speed pedelecs,” provide pedal assistance only and can reach speeds of up to 28 mph. These classifications reflect the wide range of performance capabilities and potential safety risks associated with e-bike use.

Growth in Use and Proliferation on Roadways

Micromobility vehicles offer numerous advantages. These vehicles are generally more affordable than traditional automobiles, reduce traffic congestion, require minimal parking space, and are accessible to users of varying ages and physical abilities. Their convenience and efficiency have driven widespread adoption.

Nationwide, the use of e-bikes and e-scooters has grown substantially over the past decade. The U.S. Department of Energy reported that in 2022, approximately 1.1 million e-bikes were sold in the United States, nearly four times the number sold in 2019. Additionally, data from the Statista Research Department show that by 2024, 130 cities across the country were served by e-scooter sharing programs, and approximately 8% of U.S. households reported owning a private e-scooter. This rapid growth has significantly increased the presence of micromobility vehicles on local roadways, sidewalks, and shared-use paths.

While these vehicles offer clear benefits, their growing prevalence has also introduced new safety challenges. The increased interaction between micromobility users, pedestrians, and motor vehicles has contributed to rising concerns about roadway safety and injury risk.

Rising Injuries and Fatalities

The expansion of micromobility use has coincided with a sharp rise in injuries and fatalities. Data from the U.S. Consumer Product Safety Commission (CPSC) indicate that e-bike-related accidents increased from approximately 3,500 in 2017 to over 34,000 in 2023. During the same period, e-scooter accidents rose from roughly 7,700 to more than 40,000. However, the CPSC cautions that these figures are estimates, as many jurisdictions do not distinguish e-bikes and e-scooters from traditional bicycles and scooters in their crash reporting systems.

This lack of consistent reporting obscures the true scale of the problem. Although available data suggests a significant increase in injuries and crashes, limitations in reporting prevent a comprehensive understanding of the scope and contributing factors of micromobility-related incidents.

Balancing Vulnerability Across Roadways and Sidewalks

Micromobility safety is complex. E-bike and e-scooter riders are especially vulnerable when traveling alongside cars and trucks, where crashes are more likely to result in serious or fatal injuries. In Palm Beach County, a significant number of fatal micromobility crashes have taken place on roadways, underscoring the risks riders face in mixed traffic conditions.

At the same time, pedestrians are vulnerable when micromobility devices operate on sidewalks. E-bikes can weigh 50 to 70 pounds and travel at speeds up to 28 miles per hour, making collisions with pedestrians severe. As micromobility use increases, conflicts on sidewalks and shared-use paths have become a growing concern, particularly for children, older adults, and people with disabilities.

Effective policy must account for both forms of vulnerability, protecting riders from vehicle traffic while also protecting pedestrians from fast-moving motorized devices. Effective policy must account for both forms of vulnerability, protecting riders from vehicle traffic while also protecting pedestrians from fast-moving motorized devices. For local governments, this means making deliberate choices about sidewalk access, roadway use, speed limits, and safety requirements that reflect how and where micromobility devices are being used in their communities.

Community Impact: Fatal Crashes in Palm Beach County

Palm Beach County has experienced several high-profile and deeply tragic e-bike and e-scooter crashes in recent years. In 2024, Woodley Gilbert, a 35-year-old man, was critically injured after being struck by a vehicle while riding an e-bike on Forest Hill Boulevard. In 2025, the community lost multiple residents in fatal e-bike crashes, including 12-year-old Rico Roundtree, 58-year-old Anthony Wallace, and 42-year-old Vincent Menniti.

These losses have had a profound impact on families, schools, and neighborhoods throughout the county. Anthony Wallace's wife speaks out about her experience waiting for Anthony to come home the night of his death. Members of the Jupiter Middle School community continue to reconcile the loss of Rico Roundtree. His tragic death highlights the vulnerability of young riders and underscores the urgent need for safety measures.

Medical professionals have also expressed growing concern. In an interview with WPTV, Dr. Anne Fischer, a pediatric surgeon at St. Mary's Medical Center and Palm Beach Children's Hospital, has reported a notable increase in e-bike-related injuries in recent years. She emphasized that falls or collisions at speeds of 15–20 mph can result in serious head injuries, internal trauma, and fractures. These firsthand accounts reinforce the urgent need to address the risks posed by micromobility vehicles.

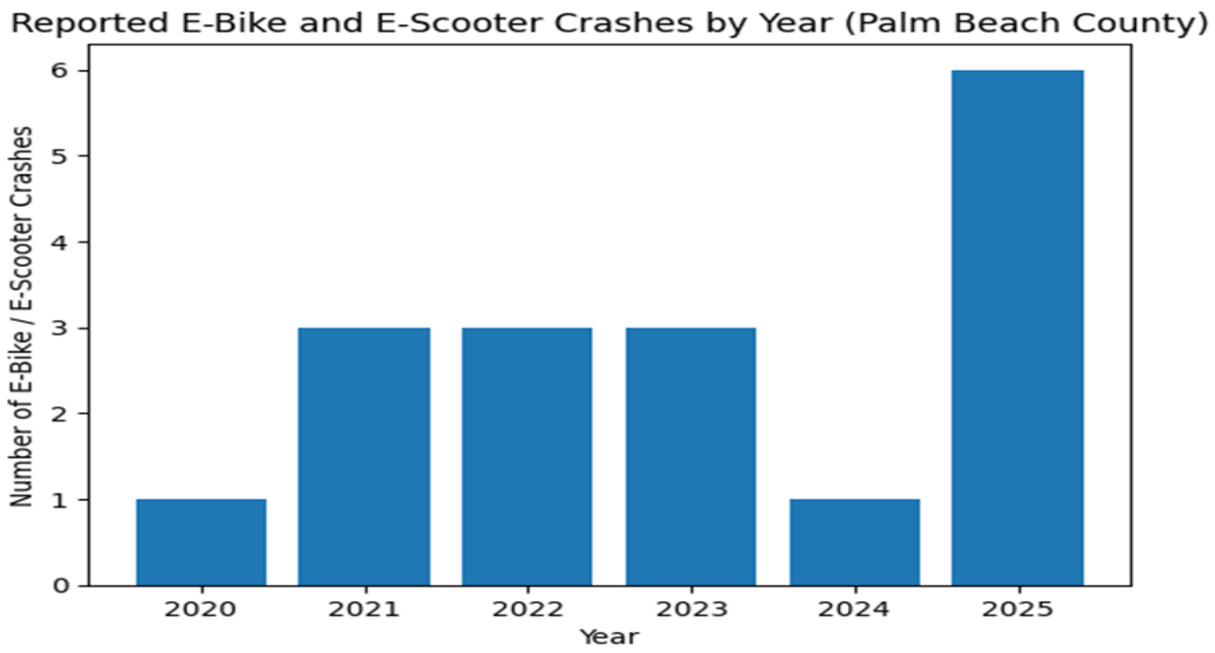
In the wake of these tragedies, Commissioner Weiss recognized the community's grief. Hearing from grieving families, educators, and medical professionals made clear that these were not isolated incidents, but signs of a growing public safety crisis. The repeated loss of neighbors, children, and loved ones brought an urgent need for solutions to prevent further harm.

Data Limitations and Reporting Challenges

Despite heightened public concern, accurately assessing micromobility crash trends in Palm Beach County remains difficult due to significant gaps in crash data reporting. The Florida Department of Highway Safety and Motor Vehicles crash report forms do not include dedicated check boxes for micromobility vehicles. As a result, these vehicles are often categorized under broader bicycle or pedestrian classifications, making it challenging to identify micromobility-specific incidents.

Because of these limitations we had to manually sift through hundreds of crash reports to find out how many fatal crashes in Palm Beach County involved someone on a micromobility device. Due to time constraints, we focused exclusively on fatal incidents. Each report was examined individually, to identify cases involving micromobility vehicles. Through this process, we identified 16 fatal micromobility-related crashes in Palm Beach

County, with six occurring in 2025 alone. These findings, illustrated in the accompanying bar graph, suggest a concerning upward trend.



However, these figures likely underestimate the true scope of the problem. Incomplete data limits the ability to conduct accurate trend analyses or identify causal factors, thereby constraining efforts to develop effective policy responses.

Remaining Knowledge Gaps

There's still a lot that we don't know. It took extensive work to find these fatal crashes, but there are far more crashes with injuries and without injuries that we did not look at. Having a better understanding as to how these crashes occur is important to craft effective regulations that will make our roadways safer for all users.

If the data were systematically collected, policymakers and public safety officials could design evidence-based regulations, including speed restrictions, helmet requirements, age limitations, and targeted infrastructure improvements. Additionally, comprehensive data would support the development of educational campaigns aimed at both riders and motorists.

Regulatory Tools Available to Policymakers

Local and state governments have multiple regulatory "switches" available to improve micromobility safety. These tools can be adjusted individually or combined depending on local conditions, infrastructure, and community needs.

Age Restrictions:

Jurisdictions may establish minimum age requirements for operating micromobility devices. Some Florida municipalities prohibit young children from riding e-bikes altogether, while others allow use with parental supervision or additional safety requirements.

Helmet Requirements:

Helmet mandates are a commonly used safety measure. Medical professionals consistently report that head injuries are among the most severe outcomes of micromobility crashes, making helmet use a critical prevention strategy.

Speed Restrictions:

Speed limits can be applied based on location, such as reduced speeds near pedestrians or on shared-use paths. Although e-bikes are generally capped at 28 miles per hour under state classification, lower local speed limits may reduce crash severity in high-conflict areas.

Operational Zones:

Rules governing where micromobility devices may operate can be key in safety policy: roadways, bike lanes, sidewalks, or shared paths. Prohibiting sidewalk use may protect pedestrians, while expanding protected bike infrastructure may reduce rider exposure to vehicle traffic.

Licensing and Registration:

Some policymakers have proposed licensing or registration requirements for higher-speed e-bikes. These measures could improve accountability, enforcement, and data collection, particularly for devices capable of operating at speeds similar to motor vehicles.

Legislative Efforts and Policy Implications

Recognizing the growing safety concerns surrounding e-bikes, the Florida Legislature has introduced House Bill 243 (HB 243), which has recently advanced through committee review. The bill proposes several measures, including a 10-mph speed limit on walkways when riders are within 50 feet of pedestrians, licensing requirements for high-speed e-bikes capable of exceeding 28 mph, the creation of an Electric Bicycle Safety Task Force under the Department of Highway Safety and Motor Vehicles (DHSMV), and requires the submission of all prior reports involving electric bikes.

While these provisions represent meaningful progress, additional improvements are needed. Specifically, incorporating mandatory micromobility classifications into DHSMV's

crash reporting, a micromobility vehicle check box and the type of vehicle used, would significantly enhance data quality. We have taken steps to push the Florida Legislature to change this reporting process. Improved reporting would allow Palm Beach County and other locales to better assess risk factors, evaluate trends, and develop localized safety regulations tailored to community needs.

Local Government Responses in Other Jurisdictions

Several municipalities in Florida have recently adopted micromobility regulations in response to safety concerns, creating useful precedents for Palm Beach County. The Town of Palm Beach recently enacted one of the region's most comprehensive micromobility ordinances. Under Ordinance 17-2025, e-bikes, scooters, and similar micromobility devices are banned from sidewalks in commercial districts and on multi-use trails, including the Lake Trail. In addition, riders must be at least 15 years old, those under 16 must wear helmets, and all micromobility users must carry valid identification upon request by law enforcement. Violations may result in fines or code enforcement action.

The city of Palm Coast has passed Ordinance 2025-18, which creates clear operational rules for e-bikes within the city. This ordinance establishes a minimum age requirement (no riders under 11), prohibits modified e-bikes that exceed state speed limits, requires riders to yield to pedestrians and obey traffic laws, and allows law enforcement to issue fines or impound e-bikes used in violation of the ordinance. These provisions aim to reduce reckless use and clarify where and how e-bikes can operate on streets, sidewalks, and shared paths.

In Boynton Beach, city officials are currently reviewing a draft ordinance that would prohibit micromobility vehicles from operating on sidewalks. During commission discussions, officials emphasized pedestrian safety, helmet use, lighting requirements, and an education-first enforcement approach before issuing citations. The ordinance remains under development and may be revised based on commissioner input and additional public outreach.

These local ordinances demonstrate that municipalities can play a critical role in improving micromobility safety. However, having access to detailed crash data will better equip municipalities to act before more life is lost, turning information into policies that protect neighbors, families, and children in our community.

CONCLUSION

A Data-Driven Path Forward

Micromobility vehicles are rapidly transforming the transportation landscape, offering convenience, affordability, and environmental benefits. However, safety concerns demand immediate attention. Current data limitations hinder a full understanding of the problem, restricting policymakers' ability to implement effective interventions.

To craft meaningful regulations and save lives, it is essential to improve crash reporting and data collection practices. Amending existing legislation to require standardized micromobility classifications in crash reports would provide the foundation for evidence-based policymaking. With accurate data, Palm Beach County and the State of Florida can develop comprehensive strategies that protect riders, pedestrians, and motorists alike, ultimately fostering a safer transportation environment for all.