GHSA is grateful for the following Highway Safety Champions who graciously maintained their financial support of the association this year.
# Micromobility

## Types of Powered Micromobility Vehicles

<table>
<thead>
<tr>
<th></th>
<th>Powered Bicycle</th>
<th>Powered Standing Scooter</th>
<th>Powered Seated Scooter</th>
<th>Powered Self-Balancing Board</th>
<th>Powered Non-Self-Balancing Board</th>
<th>Powered Skates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Center column</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Possible</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Seat</strong></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Operable pedals</strong></td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Floorboard / foot pegs</strong></td>
<td>Possible</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Self-balancing(^2)</strong></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Possible</td>
</tr>
</tbody>
</table>

1. All vehicles typically designed for one person, except for those specifically designed to accommodate additional passenger(s).
2. Self-balancing refers to dynamic stabilization achieved via a combination of sensors and gyroscopes contained in/on the vehicle.

*Source: Society of Automotive Engineers*
Micromobility

Micromobility Ridership

2010
Since 2010, there have been **207 million** trips on shared bikes (pedal and electric-powered) and e-scooters in the United States.

2018
There were **84 million** trips in 2018 alone, including 36.5 million on station-based bike share, 9 million on dockless bikes, and 38.5 million on e-scooters.

Source: NACTO
Micromobility

A Quicker Way to Get Around

Car speeds in cities have slowed, making micromobility a faster mode of travel.

4.7 mph
average car speed in midtown Manhattan in 2017

15 mph
average maximum e-scooter speed

Source: Agrawal as cited in Lee, Loucks, Stewart, Jarvis & Arkenberg
Micromobility

Micromobility Fatalities

**E-bikes**
- **2 fatalities** associated with bike share programs since 2007

**E-scooters**
- **22 fatalities** with all but three involving motor vehicles since 2018

90% of micromobility fatalities are the result of a collision between a personal transportation device and a motor vehicle.

Source: Harmon
Challenges

- Consistent statutes/regulations
- Dedicated funding
- Universal reporting standard
- Separate infrastructure
- Law enforcement training
- Education for all road users