» $81 billion contribution to U.S. economy
» Supporting 770,000 jobs
» 2,000 supplier + retail members
» $10 billion in state + local taxes
CREATING A BRIGHT FUTURE FOR EBIKES THROUGH MODEL LEGISLATION AND EDUCATION
Demographics and Sales
What is an E-Bike?

- Almost identical to a traditional bicycle in appearance
- Small electric motor and battery to provide motorized assistance (pedal or throttle), up to 750 w (the power of a hair dryer)
Who Rides E-Bikes and Why?

- Most riders are 40-70 years old, but there is a growing 25-40 segment.
- Primary motivations: Recreation, health and fitness, transportation, errands.
- Diverse user base: Couples, households, urban dwellers, aging bicyclists, people with disabilities.
- Helping facilitate broader expansion in bicycling participation.
• E-bikes are the fastest growing category of bike sales in the U.S.

• 1% of all bikes sold in 2016, 7% in 2017.

• 2018: Unit sales have grown 96% year over year.
Federal and State Policies
Federal Regulations

- E-bikes are federally regulated for the purposes of product safety and federal funding.

- Consumer Product Safety Commission regulates their condition at their first point of sale, not their use (15 U.S.C. § 2085(a)).

- Federal law provides that e-bikes may be used on federally funded facilities that are otherwise non-motorized (except for RTP funds).
Key points from definition:

- Allows pedal or throttle assist bicycles
- Maximum power of 750 watts
- Maximum speed of 20 MPH under motor power alone
- No specified maximum speed when operating under combined human and motor power
Top Concerns

- Law enforcement implications
- Signage
- Local regulation
- Identification, labeling, and distinction from a motorcycle
- Speed and safety
- Fiscal notes
State Regulations

• States regulate the use of e-bikes on streets and bike paths.
• About 30 regulate e-bikes like bicycles.
• Others have no e-bike definition, and may have licensing and registration requirements.
• Different from eMTB trail access, which public land agencies manage (not DOTs).
Three Classes of E-Bikes

• Class 1: Pedal assist, maximum assisted speed 20 mph (regulated like bikes, permitted on paths, local regulation allowed).

• Class 2: Throttle assist, maximum assisted speed 20 mph (regulated like bikes, permitted on paths, local regulation allowed).

• Class 3: Pedal assist, maximum assisted speed 28 mph (equipment and use restrictions, local regulation needed for path use).
Key Features of Model Bill

- Specific definitions for the three classes of e-bikes
- Exclusion of e-bikes from other vehicle categories to eliminate confusion (e.g., motorcycle, scooter, motor vehicle)
- Clarity on which bicycle laws apply to e-bikes
- Default rules for bike path usage
- New e-bike specific requirements:
  - Labeling
  - Motor engagement
  - Safety provision for Class 3
E-BIKE REGULATIONS

MODEL LEGISLATION
- PFB and BPSA have enacted our model law, which defines and regulates three classes of e-bikes.

ACCEPTABLE
- Regulated as a bicycle
- Passengers allowed
- No age minimum
- No licensing or registration required
- Can use existing bike infrastructure

PROBLEMATIC
- Regulated as a moped or motor vehicle
- Confusing equipment + use requirements
- Confusing licensing + registration requirements
- Confusing access to bike infrastructure
Road/Path
E-Bike Research
- Class 1 and Class 2 e-bikes have a motor that cuts off after the rider reaches 20 mph. Class 3 e-bikes cut off at 28 mph (not average speed).
- On flat and uphill surfaces, e-bikes travel on average 2-3 mph faster than regular bikes (13-14 mph).
- Studies show that e-bikes do not travel significantly faster than regular bicycles.
- Speed depends on the ride, terrain, type of e-bike, experience and cargo.
- Some studies point to nominal increases in injuries.
### Boulder, Colo. (2014):
- Pilot project evaluating use on city bikeways.
- Surveyed speed, volume, and gender of e-bike riders, and interactions between multiuse path users.
- Minimal conflicts between trail users, no observed crashes, safe passing, slow recorded speeds.

### Jefferson County, Colo. (2017):
- Intercept and test ride surveys in parks to understand perceptions and concerns.
- 67% improved their perception of e-bikes after a test ride.
- 71% did not detect the presence of a Class 1 e-bike on the path with them.
• Docked & dockless bike share
  • Pedal assist, 15-20 MPH top speed, 50-75 mile range
  • Charged in 1/10/15/30 minute increments
  • Connected bikes, unlock with smartphone
• Practical transportation option, no ownership or parking burden
• Has to be part of a larger system of safe bike routes and bike parking
• Major cost is building the infrastructure for e-bike shares with outlets and charging stations
E-Bikes and the ADA

- Americans with Disabilities Act (ADA):
  - Applies to a “public entity” (state and local governments).
  - Does not apply to federal public lands.
  - Protects a “qualified person with a disability.”
  - That person cannot be “denied the benefit of services, programs, or activities of a public entity.”
  - Public entities must provide “reasonable accommodations” to a qualified person.
  - Exception if an accommodation would “fundamentally alter” the services, programs or activities being provided.
- The Forest Service is the only federal agency that has released a written analysis of its rules as they apply to the use of e-bikes by the disabled.
ADA Case Law

- *Bertrand v. City of Mackinac Island*: ADA applies to the City because it is a local government and can’t deny people the benefit of cycling on local streets.

- Post-Bertrand, DOJ released regulations that guide implementation of the ADA in 2010: E-bikes are likely classified as a “other power-driven mobility device” (OPMD).

- “Public entities” must make “reasonable modifications” to their policies to permit the use of OPMDs by disabled persons unless they cannot be operated in accordance with “legitimate safety requirements” that the public entity has adopted.
Alex@PeopleForBikes.org
Morgan@PeopleForBikes.org

PeopleForBikes.org/E-Bikes