

- SUBJECT:** Regulating electric personal assistive mobility devices (Segways)
- COMMITTEE:** Transportation — favorable, without amendment
- VOTE:** 5 ayes — Krusee, Phillips, Hamric, Harper-Brown, Mercer  
0 nays  
4 absent — Edwards, Garza, Hill, Laney
- WITNESSES:** None
- BACKGROUND:** Transportation Code, Ch. 551 regulates operation of bicycles, mopeds, and play vehicles, and sec. 551.001 describes the persons affected by the chapter. Ch. 502 governs vehicle registration. Sec. 601.002(5) defines “motor vehicle” and lists exclusions. Sec. 541.201 defines various types of vehicles, rail transportation, and equipment, and sec. 547.001 defines various types of vehicle equipment.
- “Segway” is the brand name of Segway LLC’s upright, two-wheeled “human transporter” powered by two rechargeable electric motors and guided by multiple gyroscopes, sensors, and an on-board computer system.
- DIGEST:** HB 1997 would add a new subchapter C to Transportation Code ch. 551 dealing with electric personal assistive mobility devices. They would be defined as self-balancing, having two non-tandem wheels, designed to transport one person, and propelled by an electric propulsion system averaging 750 watts or one horsepower.
- The devices would not be defined as motor vehicles or slow-moving vehicles, nor would they have to be registered.
- The devices could be operated on roadways with speed limits of 35 mph or less. Operation on roadways whose speed limits exceed 35 mph would be allowed only where bicycles exclusively are allowed to operate. The devices could not be operated on roadways where bicycles are prohibited, but could be operated on sidewalks. Unless provided otherwise, bicycle operation

provisions of Title 7 governing vehicles and traffic also would apply to the devices.

The bill would take effect September 1, 2003.

**SUPPORTERS  
SAY:**

HB 1997 would bring Texas's personal transportation policy into the 21st century. It would accommodate in statute the most modern and innovative vehicle technology to emerge since the advent of the computer – the Segway. Since 2002, more than 30 states have modified their laws and regulations so consumers can take full advantage of this high-tech alternative to driving and mass transit.

Current state transportation law was not written with a vehicle as unique as the Segway in mind. It would be defined as a personal mobility device and treated regulatorily much like a bicycle, its closest relative, rather than a motor vehicle. Because it weighs less than 100 pounds, travels no faster than 12.5 mph, and is controlled by body movement, the Segway functions as much like a pedestrian as a motorized vehicle. Hence, this revolutionary mode of transport does not fit neatly into existing legal or regulatory categories.

Segway riders stand atop a 19 x 25-inch platform and lean forward or backward to move ahead or in reverse. Standing upright stops the Segway, which occupies roughly the same space as a standing person. It has no brakes, accelerator, throttle or seat (although some models can be modified to carry items or cargo up to 75 pounds). Twisting either side of the center-mounted handlebar turns the Segway left or right. These features provide riders an exceptional degree of control. Manufacturers claim that Segways are highly maneuverable with short stopping distances.

The use of Segways should be encouraged to help alleviate traffic congestion and to facilitate alternative modes of travel that do not pollute the air or consume precious natural resources. Segways could become especially useful in major metropolitan areas for shuttling between downtown office buildings or making short suburban trips. Segways have been used successfully in public settings, and with few accidents, by several government entities including the U.S. Postal Service, National Park Service, local law enforcement agencies, municipal utilities, and also several businesses.

Because of its versatility, Segways should be allowed on sidewalks, bicycle paths, and low-speed roadways. Pedestrians and vehicles will become accustomed to them quickly, and interaction between people on sidewalks and roads should not be any more problematic than it is now.

Segway LLC has initiated federal and state regulation, not sought to avoid it. The company could have marketed the Segway before any laws or regulations were enacted specifically to govern its use, but the makers chose to approach state officials first and seek reasonable restrictions on their product.

Unlike some states, Texas would not go so far as to include a Segway rider under the definition of pedestrian. The National Highway Transportation Safety Administration has ruled that Segways are not motor vehicles for regulatory purposes, so states cannot bar them from sidewalks. It would be improper to classify a Segway as a motorized mobility device because it does not meet the statutory definition of, nor does it function like, a motorized wheelchair. The regulatory status that this bill would grant the Segway is appropriate.

OPPONENTS  
SAY:

HB 1997 would show favoritism to an out-of-state company that has undertaken a nationwide campaign to enact regulations enabling it to better market its new product. This bill would mirror language in other state's bills drafted by Segway LLC. Texas should not adopt a "one-size-fits-all" approach but should proceed with caution before revising its transportation statutes to embrace an unknown quantity.

Segway LLC is trying to have it both ways by asking states to treat its product like both a pedestrian and a bicycle. Pedestrians belong on sidewalks; bicycles belong on streets and bike paths. Enforcement already is difficult regarding bicycles, scooters, and skateboards. Segways, which can travel up to three times faster than a person on foot, would compound the problems encountered by motorists and pedestrians, especially in urban areas.

HB 1997 is premature. The state should conduct pilot programs or require "trial runs" in selected cities on a voluntary basis before moving toward wholesale regulatory acceptance. How well Segways would function in various environments under changing conditions is largely unknown. Segways have undergone inadequate testing in actual traffic conditions, and

safety performance data to date are insufficient. The bill should be sunsetted to allow the state time to determine whether Segways are safe and capable of interacting properly with pedestrian and vehicular traffic.

The state should confine itself to setting broad policy parameters and leave the specifics to local authorities. HB 1997 would make no provision for municipal regulation. Cities and towns as diverse as those in Texas should not have ill fitting laws imposed upon them by the state. They should have the option of restricting, controlling, or banning a prototype such as a Segway under certain circumstances, especially in areas with high volumes of children and senior citizens.

**OTHER  
OPPONENTS  
SAY:**

The bill lacks sufficient safety provisions both for Segway riders and the public. It would require no helmets, signaling, age restrictions, speed limits on sidewalks, or safety equipment (e.g., headlights, reflectors, turn signals, back-up lights). The bill would not regulate nighttime operation, driving a Segway while intoxicated, liability insurance, licensing, or inspection.

**NOTES:**

The identical companion bill, SB 1277 by Armbrister, was reported favorably without amendment on April 29 by the Senate Intergovernmental Relations Committee.