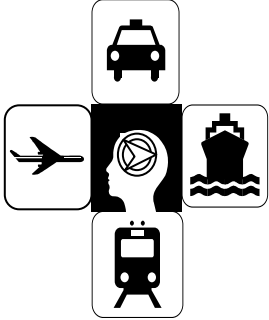


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## Tech Brief

### MOTORIZED SCOOTERS/GO-PEDS®

FHWA-NJ-2004-026

March, 2005

#### SUMMARY

This report summarizes the results of the work performed under the project *Motorized Scooters/Go-Peds*. The focus of this research was to survey laws, regulations and practices of States in the U.S., municipalities within New Jersey, and abroad, to determine best practices regarding the use of motorized scooters. Existing New Jersey legislation and legislation from other States were compared with the proposed legislation in Senate Bill 1510. Specific objectives of the research include to:

- Summarize the practices of State motor vehicle agencies and municipalities as a basis for regulations in New Jersey;
- Explore the relationship between Go-Peds® and motor vehicle or pedestrian accidents;
- Review the status of small motorized vehicles on public property, and recommend alternatives;
- Determine if data from other States can be utilized for analyses in New Jersey; and determine if new guidelines for registration, licensing and insurance can be introduced.

#### INTRODUCTION/BACKGROUND

According to the U.S. Consumer Product Safety Commission (CPSC), emergency room-treated injuries related to scooters have increased sixteen-fold from May to September 2000. For this reason, State and local governing agencies have enacted laws and regulations governing the use of motorized scooters in the U.S. as well as

abroad. These restrictions vary from State to State and by municipalities within each State. New Jersey, like other States, is considering the enactment of legislation regulating the use of motorized scooters. Senate Bill No. 1510, introduced on April 29, 2004 and amended on October 4, 2004, is one such attempt. In this bill, it would be unlawful to operate motorized scooters on public lands, highways, streets and sidewalks of this State.

## **RESEARCH APPROACH**

Three primary tasks were performed to accomplish the research objectives. The first task involved a survey of States regarding current practices and regulations of motorized scooters. The survey identified definitions of motorized scooters and legislation of motorized scooters related to its use on public roadways/sidewalks, municipal regulations, registration, age of operator, helmet use, and fine schedule. The second task involved using existing crash databases to explore the relationship between motorized scooters and motor vehicle or pedestrian crashes. To identify potential conflicts of the proposed motorized scooter legislation with existing motor vehicle laws, a review of existing New Jersey motor vehicle law was also performed. Based on the literature search and review of state laws, recommendations were made on the use and legislation of motorized scooters.

## **FINDINGS**

### **Safety Statistics**

Three databases were searched in an attempt to explore the relationship between motorized scooters and motor vehicle or pedestrian crashes. Motor vehicle crash data were reviewed using the National Highway Traffic Safety Administration's (NHTSA's) Fatality Analysis Reporting System (FARS) database and the New Jersey Department of Transportation (NJDOT) accident database. The NJDOT accident database could not be used to identify safety statistics for motorized scooters as these vehicles are not explicitly categorized as a vehicle type on the NJ Accident report. In the FARS database, motorized scooters are included in the vehicle type "other motor cycle type (minibikes, motor scooters)". The data showed that from 2000 to 2002 there were no crashes involving "Other motor cycle type (minibikes, motor scooters)" in the State of New Jersey. In 2000 across the U.S., there were 29 fatal crashes involving "Other motor cycle type". These fatalities increased to 36 in 2002 showing an increasing trend in these types of crashes.

The National Electronic Injury Surveillance System (NEISS) data provides sample data gathered from the emergency departments of 100 hospitals and used to identify injuries associated with specific consumer products. Using product code 5042, which describes "Motorized Vehicles, not elsewhere classified - scooters(skateboards) powered", a

query was performed to gather injury data for motorized scooters for 2002. The query identified 137 cases where a motorized scooter was involved in an injury. The data showed over half of the cases are for motorized scooter users over the age of 30. The data suggests that motor scooters used for mobility assistance, rather than as a recreational vehicle, is included in the product code used. Based on the review of the three crash databases, it was concluded that available databases cannot be used to determine relationships between motorized scooters and motor vehicle or pedestrian crashes.

## State Survey

In total, 29 States have existing legislation or proposed legislation under which motorized scooters are classified. In 15 States a definition of a motorized scooter is provided. In some States, motorized scooters are not specifically defined, but are classified using the general terminology "motor-driven cycles". In the remaining States, motorized scooters are classified under a variety of vehicle types including motorcycle, motorized foot scooter, motor assisted scooter, scooter, and motorized skateboard. Features included in the definition of a motorized scooter include, but are not limited to presence of floor pad, brake horsepower, type of transmission, piston displacement, weight, power source, number of wheels, wheel size, maximum speed, presence of a seat or saddle, the presence of a handle bar and whether the device is gas or electric.

A review of existing New Jersey legislation and legislation from other States was also performed and compared with the proposed legislation in Senate Bill 1510. The comparison focused on six areas including: use on public roadways/sidewalks; municipal regulations; registration; age of operator; helmet use; and fine schedule.

## RECOMMENDATIONS

Based on the survey of State legislation the following provides recommendations on what features should be included in the definition of motorized scooters:

- **Brake Horsepower:** Few States include brake power in the definition of a motorized scooter. A brake horsepower is not recommended for the proposed definition.
- **Piston Displacement:** The maximum piston displacement of 50 cc is recommended for use in the definition of a motorized scooter.
- **Number of Wheels:** Used by over half of the States defining motorized scooters. It is recommended that the proposed motorized scooter definition be modified to include that a motorized scooter has not more than three wheels.

- **Maximum Speed:** The maximum speed has direct safety impacts. The proposed definition does not include a maximum speed, however a maximum speed of 25 mph is recommended for inclusion in the definition of a motorized scooter.
- **Presence of Seat:** Although only one State prohibits the use of a seat, this prohibition is recommended as a seat will compromise the operator's ability to see and be seen, and the presence of a seat will allow motorized scooters to be distinguished from motorized bicycles and motorized skateboards. Therefore, it is recommended that the proposed definition be modified to include that no seat or saddle be present.
- **Presence of Handlebars:** A handlebar is a safety device on motorized scooters, and therefore it is recommended that the proposed definition be modified to include the presence of handlebars on motorized scooters.

Recommendations on motorized scooter legislation include:

**Operation on Public Roadways/Sidewalks:** The highest safety to motorized scooter/skateboard operators is to prohibit the use of this device on public roadways and on sidewalks. Restricting the use of motorized scooters to roadways of a designated speed limit or access control would provide some level of safety.

**Municipal Regulation:** The proposed legislation would allow municipalities to regulate the use of motorized scooters in designated areas other than streets, highways and sidewalks. This approach to municipal regulation differs from all other States reviewed. Allowing municipalities to regulate the use of motorized scooters on streets of certain characteristics deemed appropriate for its use should be considered.

**Minimum Age:** The proposed bill has the lowest minimum age of 12 for use of a motorized scooter than all States reviewed. This minimum age may not provide the highest safety and a higher age, comparable to motorized bicycles, may be warranted.

**Helmet Use:** The proposed legislation requires all operators of motorized scooters/skateboards to use a helmet. As proposed, this legislation would provide the highest level of safety. Consideration may be given to requiring helmet use by age.

**Registration:** Registering of motorized scooters does not necessarily promote safety of these devices, but may deter some from purchasing them. Registration does not appear to be a critical need for enhancing safety.

**Fine Structure:** The proposed fine structure includes a fee and dictates that the motorized scooter/skateboard is seized and community service be performed for second and subsequent offenses. Compared to other low-speed motor vehicle law violations within the State, the proposed fine structure appears to have stiffer penalties.

Although the proposed approach may minimize violations, the fining structure does not appear to be comparable to similar violations for other low-speed vehicles.

<b>FOR MORE INFORMATION CONTACT:</b>	
NJDOT PROJECT MANAGER:	Edward S. Kondrath
PHONE NO.	609-530-2058
e-mail	<a href="mailto:Ed.Kondrath@dot.state.nj.us">Ed.Kondrath@dot.state.nj.us</a>
UNIVERSITY PRINCIPAL INVESTIGATOR	Dr. Janice Daniel
UNIVERSITY:	New Jersey Institute of Technology
PHONE NO.	(973)642-4794
e-mail	daniel@njit.edu

A final report is available online at <http://www.state.nj.us/transportation/research/research.html>

If you would like a copy of the full report, please FAX the NJDOT, Division of Research and Technology, Technology Transfer Group at (609) 530-3722 or send an e-mail to [Research.Division@dot.state.nj.us](mailto:Research.Division@dot.state.nj.us) and ask for:

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