NATIONAL MOTORISTS ASSOCIATION



Empowering Drivers Since 1982

402 West 2nd Street Waunakee, Wisconsin 53597-1342 Telephone:608-849-6000Fax:888-787-0381E-mail:nma@motorists.orgWebsite:www.motorists.org

Written Testimony in Opposition of Senate Bill 251 Pennsylvania House Transportation Committee Submitted by the National Motorists Association, April 2, 2018

The National Motorists Association's Position on Senate Bill 251

The National Motorists Association (NMA) strongly opposes Senate Bill 251 and any other bill that allows Radar and Lidar to be used by local police as timing devices. This bill has little to do with safety and much to do with collecting money by unfairly ticketing safe drivers. Improperly posted speed limits combined with electronic speed monitoring promotes sanctioned speed traps. Other reasons for NMA opposition include the following:

- The use of Radar and Lidar devices to control motorists in speed traps lead frequently to "Policing for Profit" by local cities and police departments. Many speed limits in Pennsylvania are posted well below the accepted standard of the 85th percentile of free-flowing traffic.
- Speed limits should be based on sound traffic-engineering principles that consider responsible motorists' actual travel speeds. Typically, this should result in speed limits set at the 85th percentile speed of free-flowing traffic (the speed under which 85 percent of traffic traveling).
- Improperly set speed limits (which are typically set artificially low) create wider speed variance among vehicles resulting in more vehicle conflicts and accidents.
- Speeding tickets are a multi-billion dollar annual business for state governments, municipalities
 and insurance companies. Money from tickets and court fees aside, the US Department of
 Transportation has specific programs that encourage states to boost the number of citations
 issued as a prerequisite for receiving federal funding.

By supporting these bills, lawmakers sanction local speed traps and ticket quotas. A speed trap exists wherever traffic enforcement is focused on extracting revenue from drivers instead of improving safety, made possible by speed limits posted below the prevailing flow of traffic. Here are some suggestions from the NMA in order to ensure that the state and municipalities do not use Radar and Lidar devices that can cause public distrust of "Policing for Profit" motives.

- Require that any posted speed limit that differs from the standard speed limit for a given type of road or highway be supported by a legitimate traffic engineering study that determines the 85th percentile speed of free flowing unimpeded traffic.
- Establish a limit on the percent of local revenues that any community can generate through traffic fines. Any local unit of government that is generating more than 10 percent to 20 percent of its total revenue from fines is abusing traffic enforcement for revenue enhancement purposes.
- Require that a high percentage (75 percent) of all traffic fines and related costs be transferred to an unrelated state fund, e.g. public education, emergency relief, or public library aids.
- Prohibit the use of electronic speed measurement devices to enforce speed limits that have not been determined through the use of an official traffic engineering study.
- Require specific and proper training for any person using electronic devices for speed enforcement purposes.
- Provide that any motorist charged with a traffic violation has the automatic right for a change of venue to a court of record (from a local administrative or municipal court).

• Prohibit the use of electronic speed measurement devices to clock vehicles within 100 yards of a speed limit sign that reduces the speed limit.

Also, there are a number of issues with the Radar and Lidar devices themselves.

- Law enforcement personnel who use the devices must be properly trained and certified.
- The devices themselves need to be calibrated on a regular schedule. Currently SB 251 requires a yearly calibration which does not engender confidence that the device works correctly gauging speed.
- SB 251 allows tickets at 6 mph over which means if the calibration is off even a small amount, accuracy could be greatly affected.

In addition, the U.S. Department of Public Safety comprehensive manual based on federal tests details additional radar errors:

Antenna-positioning error Vehicle-interference error Double-bounce error Road-sign error Fan-interference error Look-past error Cosine error Beam-reflection error Radio-interference error

The Benefits of Properly Set Speed Limits

Highway safety professionals and law enforcement officials agree that speed limits need to be established based on the 85th percentile speed of free-flowing traffic. The 85th percentile speed is defined as the speed that 85 percent of motorists drive at or below. Setting speed limits at this level promotes efficient traffic flow, enhances highway safety and decreases accident rates.

This is why organizations like the Federal Highway Administration (FHWA), the Michigan State Police and the Florida Department of Transportation vigorously promote the safety benefits of speed limits that are properly set to the 85th percentile level. The Wisconsin DOT recognizes the benefits of this method as well:

The setting of speed limits is fundamentally influenced by basic principles of human behavior. Research and experience have shown that effective speed limits are those that the majority of motorists will naturally and instinctively drive. Traffic laws that reflect the behavior of the majority of motorists are found to be the most successful.

Nationally, the most recognized practice is to post the speed limit as near as practical to the speed at which 85% of the drivers are traveling. Most people choose a reasonable speed in which they feel comfortable and safe. Traffic engineers consider the 85th percentile speed to help determine the posted speed limit.

What a rational speed limit does:

- Encourage compliance from the majority of drivers
- Provide a clear reminder of the maximum reasonable speed under ideal conditions. When conditions change, drivers must reduce their speed accordingly
- Serve as an effective tool for law enforcement
- Minimize public antagonism toward law enforcement agencies which results from enforcement of artificially low speed limits

Provide a smooth and orderly flow of traffic to prevent crashes. These comments reinforce a long-

understood and critical traffic engineering concept known as the Solomon Curve. Essentially, the curve (shown in the accompanying figure) demonstrates that the least risk of crash involvement occurs with vehicles moving near the average of speed of traffic, with the safest travel speed being about 5 mph faster than traffic flow.

Conversely, the odds of being involved in an accident rise dramatically as vehicle speeds drop below the average for surrounding traffic. Based on research conducted by the U.S. Department of Commerce 50 years ago, these findings have never been substantially refuted in the intervening years.



The Problem of Under-Posted Speed Limits

Traffic researchers with the FHWA have documented the problems created by widespread underposting of speed limits, including lack of public acceptance/compliance, safety concerns and the strain on limited police resources:

However, the findings to date suggest that, on the average, current speed limits are set too low to be accepted as reasonable by the vast majority of drivers. Only about 1 in 10 speed zones has better than 50-percent compliance. The posted speeds make technical violators out of motorists driving at reasonable and safe speeds.

For the traffic law system to minimize accident risk, then speed limits need to be properly set to define maximum safe speed. Our studies show that most speed zones are posted 8 to 12 mph below the prevailing travel speed and 15 mph or more below the maximum safe speed. Increasing speed limits to more realistic levels will not result in higher speeds but would increase voluntary compliance and target enforcement at the occasional violator and high-risk drive.

More recently, a Transportation Research Board study confirmed the pervasiveness of significantly under-posted speed limits and called attention to the safety consequences they pose:

The posting or lowering of speed limits is not a safety measure and unless speed limits are posted at or above the 85th percentile speed, they misinform engineers, planners and the general public by indicating that travel speeds on a road are slower than they actually are. Bad information leads to bad results. Their potential to create unsafe conditions should not be minimized.

Conclusion

Making sure speed limits are set properly based on established engineering standards, is a critical, yet often overlooked, public safety issue. Enforcing artificially low speed limits by local police through Radar and Lidar devices unfairly targets safe drivers and supports speed traps, ticket quotas and policing for profit. The National Motorists Association therefore urges this committee to NOT support SB 251 or any other legislation that allows local police to use Radar or Lidar for timing devices.

About the National Motorists Association

Founded in 1982, the National Motorists Association is a North American grassroots advocacy organization dedicated to the protection of motorists' rights and freedoms. More information is available www.motorists.org.

Addendum—NMA's Frequently Asked Questions Regarding Speed Limits

Q. How should speed limits be set?

A. Traffic engineers maintain that speed limits should be established according to the 85th percentile of free flowing traffic. This means the limit should be set at a level at or under which 85 percent of people are driving. Numerous studies have shown that the 85th percentile is the safest possible level at which to set a speed limit.

Q. What are "realistic" speed laws?

A. According to a pamphlet produced by the Washington State Department of Transportation relating to speed limits, "realistic" speed limits should invite public compliance by conforming to the behavior of the most drivers. This would allow the police to easily separate the serious violators from the reasonable majority.

Q. Isn't slower always safer?

A. No, federal and state studies have consistently shown that the drivers most likely to get into accidents in traffic are those traveling significantly below the average speed. According to research, those driving 10 mph slower than the prevailing speed are more likely to be involved in an accident. That means that if the average speed on an interstate is 70 mph, the person traveling at 60 mph is more likely to be involved in an accident than someone going 70 or even 80 mph.

Q. Wouldn't everyone drive faster if the speed limit was raised?

A. No, the majority of drivers will not go faster than what they feel is comfortable and safe regardless of the speed limit. For example, an 18-month study following an increase in the speed limit along the New York Thruway from 55 to 65 mph, determined that the average speed of traffic, 68 mph, remained the same. Even a national study conducted by Federal Highway Administration also concluded that raising or lowering the speed limit had practically no effect on actual travel speeds.

Q. Don't higher speed limits cause more accidents and traffic fatalities?

A. No, if a speed limit is raised to actually reflect real travel speeds, the new higher limit will make the roads safer. When the majority of traffic is traveling at the same speed, traffic flow improves, and there are fewer accidents. Speed alone is rarely the cause of accidents. Differences in speed are the main problem. Reasonable speed limits help traffic to flow at a safer, more uniform pace.

Q. Aren't most traffic accidents caused by speeding?

A. No, the National Highway Traffic Safety Administration (NHTSA) claims that 30 percent of all fatal accidents are "speed related," but even this is misleading. This means that in less than a third of the cases, one of the drivers involved in the accident was "assumed" to be exceeding the posted limit. It does not mean that speeding caused the accident. Research conducted by the Florida Department of Transportation showed that the percentage of accidents actually caused by speeding is very low, 2.2 percent.

Q. Aren't our roads more dangerous than ever before?

A. No, our nation's fatality rate (deaths per 100 million vehicle miles traveled) is the lowest it has ever been. The total number of fatalities has also stayed relatively stable for several years. They do occasionally increase, but given that our population and the distance the average person drives are also increasing, this is not surprising, nor is it cause for alarm.

Q. If nobody follows the speed limit, why does it matter that they are under-posted?

A. According to a speed-limit brochure published in conjunction with the Michigan State Patrol, inappropriately established speed limits cause drivers to take all traffic signals less seriously. The brochure also points out that unrealistic speed limits create two groups of drivers. Those that try to obey the limit and those that drive at a speed they feel is safe and reasonable. This causes dangerous differences in speed.